SEWING TECHNOLOGY

NSQF LEVEL - 3

TRADE PRACTICAL

SECTOR: APPAREL

(As per revised syllabus July 2022 - 1200 Hrs)



DIRECTORATE GENERAL OF TRAINING
MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP
GOVERNMENT OF INDIA



Sector : Apparel

Duration: 1 - Year

Trades : Sewing Technology - Trade Practical - NSQF Level - 3 - (Revised 2022)

Developed & Published by



National Instructional Media Institute

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First Edition: July 2022 Copies: 500

Rs.365/-

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FOREWORD

The Government of India has set an ambitious target of imparting skills to 30 crores people, one out of every four Indians, by 2020 to help them secure jobs as part of the National Skills Development Policy. Industrial Training Institutes (ITIs) play a vital role in this process especially in terms of providing skilled manpower. Keeping this in mind, and for providing the current industry relevant skill training to Trainees, ITI syllabus has been recently updated with the help of Media Development Committee members of various stakeholders viz. Industries, Entrepreneurs, Academicians and representatives from ITIs.

The National Instructional Media Institute (NIMI), Chennai, has now come up with instructional material to suit the revised curriculum for **Sewing Technology - Trade Practical - NSQF Level - 3** (**Revised 2022**) in **Apparel Sector** under Yearly Pattern. The NSQF Level - 3 (Revised 2022) Trade Practical will help the trainees to get an international equivalency standard where their skill proficiency and competency will be duly recognized across the globe and this will also increase the scope of recognition of prior learning. NSQF Level - 3 (Revised 2022) trainees will also get the opportunities to promote life long learning and skill development. I have no doubt that with NSQF Level - 3 (Revised 2022) the trainers and trainees of ITIs, and all stakeholders will derive maximum benefits from these Instructional Media Packages IMPs and that NIMI's effort will go a long way in improving the quality of Vocational training in the country.

The Executive Director & Staff of NIMI and members of Media Development Committee deserve appreciation for their contribution in bringing out this publication.

Jai Hind

Addl. Secretary / Director General (Training)
Ministry of Skill Development & Entrepreneurship
Government of India.

New Delhi - 110 001

PREFACE

The National Instructional Media Institute (NIMI) was established in 1986 at Chennai by then Directorate General of Employment and Training (D.G.E & T), Ministry of Labour and Employment, (now under Directorate General of Training, Ministry of Skill Development and Entrepreneurship) Government of India, with technical assistance from the Govt. of Federal Republic of Germany. The prime objective of this Institute is to develop and provide instructional materials for various trades as per the prescribed syllabi under the Craftsman and Apprenticeship Training Schemes.

The instructional materials are created keeping in mind, the main objective of Vocational Training under NCVT/NAC in India, which is to help an individual to master skills to do a job. The instructional materials are generated in the form of Instructional Media Packages (IMPs). An IMP consists of Theory book, Practical book, Test and Assignment book, Instructor Guide, Audio Visual Aid (Wall charts and Transparencies) and other support materials.

The trade practical book consists of series of exercises to be completed by the trainees in the workshop. These exercises are designed to ensure that all the skills in the prescribed syllabus are covered. The trade theory book provides related theoretical knowledge required to enable the trainee to do a job. The test and assignments will enable the instructor to give assignments for the evaluation of the performance of a trainee. The wall charts and transparencies are unique, as they not only help the instructor to effectively present a topic but also help him to assess the trainee's understanding. The instructor guide enables the instructor to plan his schedule of instruction, plan the raw material requirements, day to day lessons and demonstrations.

IMPs also deals with the complex skills required to be developed for effective team work. Necessary care has also been taken to include important skill areas of allied trades as prescribed in the syllabus.

The availability of a complete Instructional Media Package in an institute helps both the trainer and management to impart effective training.

The IMPs are the outcome of collective efforts of the staff members of NIMI and the members of the Media Development Committees specially drawn from Public and Private sector industries, various training institutes under the Directorate General of Training (DGT), Government and Private ITIs.

NIMI would like to take this opportunity to convey sincere thanks to the Directors of Employment & Training of various State Governments, Training Departments of Industries both in the Public and Private sectors, Officers of DGT and DGT field institutes, proof readers, individual media developers and coordinators, but for whose active support NIMI would not have been able to bring out this materials.

Chennai - 600 032

EXECUTIVE DIRECTOR

ACKNOWLEDGEMENT

National Instructional Media Institute (NIMI) sincerely acknowledges with thanks for the co-operation and contribution extended by the following Media Developers and their sponsoring organisation to bring out this IMP (**Trade Practical**) for the trade of **Sewing Technology** under the **Apparel** Sector for ITIs.

MEDIA DEVELOPMENT COMMITTEE MEMBERS

Smt. A. Yogakalyani - Asst. Training Officer,

Govt.I.T.I, Tiruppur

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Shri. Nirmalya Nath - Deputy Director of Training,

NIMI, Chennai - 32.

Shri. Subankar Bhowmick - Assistant Manager

NIMI, Chennai - 32.

NIMI records its appreciation of the Data Entry, CAD, DTP Operators for their excellent and devoted services in the process of development of this Instructional Material.

NIMI also acknowledges with thanks, the invaluable efforts rendered by all other staff who have contributed for the development of this Instructional Material.

NIMI is grateful to all others who have directly or indirectly helped in developing this IMP.

INTRODUCTION

TRADE PRACTICAL

The trade practical manual is intented to be used in practical workshop. It consists of a series of practical exercises to be completed by the trainees during the course of the **Sewing Technology** trade supplemented and supported by instructions/informations to assist in performing the exercises. These exercises are designed to ensure that all the skills in compliance with NSQF LEVEL - 3 (Revised 2022) syllabus are covered.

This manual is divided into Nine modules. The nine modules are given below.

Module 1 - Textile and hand work basic operations

Module 2 - Sewing machine operation

Module 3 - Basic construction

Module 4 - Garment part construction

Module 5 - Garment construction

Module 6 - Measurement of pattern techniques

Module 7 - Garment sketching and garment making

Module 8 - Production techniques

Module 9 - Quality control

The skill training in the shop floor is planned through a series of practical exercises centred around some practical project. However, there are few instances where the individual exercise does not form a part of project.

While developing the practical manual a sincere effort was made to prepare each exercise which will be easy to understand and carry out even by below average trainee. However the development team accept that there is a scope for further improvement. NIMI looks forward to the suggestions from the experienced training faculty for improving the manual.

TRADETHEORY

The manual of trade theory consists of theoretical information for the Course of the **Sewing Technology** Trade Practical NSQF LEVEL - 3 (Revised 2022) in **Apparel**. The contents are sequenced according to the practical exercise contained in NSQF LEVEL - 3 (Revised 2022) syllabus on TradeTheory attempt has been made to relate the theoretical aspects with the skill covered in each exercise to the extent possible. This correlation is maintained to help the trainees to develop the perceptional capabilities for performing the skills.

The trade theory has to be taught and learnt along with the corresponding exercise contained in the manual on trade practical. The indications about the corresponding practical exercises are given in every sheet of this manual.

It will be preferable to teach/learn the trade theory connected to each exercise at least one class before performing the related skills in the shop floor. The trade theory is to be treated as an integrated part of each exercise.

The material is not for the purpose of self learning and should be considered as supplementary to class room instruction.

CONTENTS

Exercise No.	Title of the exercise	Learning Outcome	Page No.
	Module 1 :Textile and Hand Work Basic Operations		
1.1.01	Familiarization with the institute	1	1
1.1.02	Handling of tools		2
1.1.03	Safety precautions while handling the tools		6
1.1.04	Measurements on dummy		7
1.1.05	Identification of fabric and texture		11
1.1.06	Handling of fabrics		14
1.1.07	Making weave samples		15
1.1.08	Market survey and swatch file		18
	Module 2 : Sewing machine operation		
1.2.09	Practice on industrial single needle lock stitch machine, ergonomic principle of sitting on sewing machine		19
1.2.10	Speed control		20
1.2.11	Practice on paper		21
1.2.12	Threading of machine		22
1.2.13	Bobbin winding & Loading		23
1.2.14-15	Practice on fabric stitching in single needle lock stitch machine		24
1.2.16	Practice on over lock machine	1	26
	Module 3 : Basic construciton		
1.3.17	Practice of making seams	2	28
1.3.18	Practice with sewing aids		35
1.3.19	Make samples of darts & pleats	3	39
1.3.20	Making sample of tucks, gathers, shirrs & frills		45
1.3.21	Practice of hand stitches & making samples of them		52
1.3.22	Make samples of hem		58
1.3.23	Practice of the corner makings		64
1.3.24	Making samples of casing		68
1.3.25	Making samples of neck edge finishing		71
	Module 4 : Garment part construction		
1.4.26	Make samples of different shaped neck lines		76
1.4.27	Making samples of plackets		77
1.4.28	Making samples of different pockets		93
1.4.29	Samples of making collars		101
1.4.30	Samples of making sleeves		106
1.4.31	Practice of fixing fasterness as buttons, hooks, eyes press studs	4	111
1.4.32	Practice of making button holes by hand		114
1.4.33	Practicing darning and patching	5	116

Exercise No.	Title of the exercise		Page No.
	Module 5 : Garment construction		
1.5.34	Stitching a ladies suit	6	119
	Module 6 : Measurement of pattern techiques		
1.6.35	Practice of taking body measurements	7	130
1.6.36	Practice on different types of layout using the given patterns		137
	Module 7 : Garment sketching and garment making		
1.7.37	Prepare patterns for sari petticoat		140
1.7.38	Check the fitting of a sari petticoat		144
1.7.39	Practice on special industrial sewing mahcine double needle lock stitch machine		145
	Module 8 : Production techniques		
1.8.40	Sketch a ladies' tops	8	161
1.8.41	Check the fitting of the garment		207
1.8.42	Sketch a dress for a baby		208
1.8.43	Check the fitting of the garment		241
1.8.44	Sketch a gent's kurtha		242
1.8.45	Check the fitting of the garment		298
	Module 9 : Quality control		
1.9.46	Practice on methods of removing different kinds of stains in fabrics		299
1.9.47	Checking of garments	8	302

Scan the QR Code to view the video for these exercise

Module 3



Bias facing on arm hole Ex.No. 1.3.25

Module 8



Kameez with princessline - Style I Ex.No. 1.8.40



Plain blouse - Style I Ex.No. 1.8.40



Smocking Ex.No. 1.8.40



Yoke Ex.No. 1.8.42



Construct a gent's trousers - Style I Ex.No. 1.8.44

LEARNING / ASSESSABLE OUTCOME

On completion of this book you shall be able to

ty precautions. ith seam finishes, casing, Edge 1.1.01 - 1.2.16 1.3.17 - 1.3.18 1.3.19 - 1.4.30 1.4.31 - 1.4.32
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1.4.33
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1.6.35 - 1.7.39
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1.8.40 - 1.9.47
7

SYLLABUS				
Duration	Reference Learning Outcome	Professional Skills (Trade Practical) With Indicative Hours	Professional Knowledge (Trade Theory)	
Professional Skill 160 hrs.; Professional Knowledge 42 Hrs	Make hand stitches in the given fabric following safety precautions. (NOS:Not Available)	Familiarization with the Institute. (25hrs.)	Introduction Trade Job Prospects Safety precautions First Aid (06 hrs.) PWD Gender sanitization	
		 Familiarization & handling of tools. (10hrs.) Safety Precautions while handling the tools. (10 hrs.) Measurement on dummy (06hrs) 	Basic Industrial Terminology Trade related Tools, their importance, usage and safety Measuring Tools Drafting Tools Marking Tools Cutting Tools Sewing Tools Finishing Tools (06 hrs.)	
		 5. Identification of fabrics and texture. (10 hrs.) 6. Handling of Fabrics. (15 hrs.) 7. Making weave samples. (20 hrs.) 8. Market survey and Swatch file 	 Fabric Fundamentals Brief idea about fibers Types of Fabrics Selection of Needle and thread according to fabric types Broken Needle Policy Fabric Preparation for cutting Fabric Grain Selvedge Shrinkage Straightening the fabric Grains Measurements Units Measuring Techniques (06 hrs.) Define the Problem & Research Object Developing Marketing Research Planning Collect Needed Information Implementing Marketing Research Plan (06 hrs.) 	

		Practice on Industrial Single needle lock stitch Sewing Machine 9. Ergonomic principle of sitting on sewing machine. (8 hrs.) 10. Speed Control. (5 hrs.) 11. Practice on paper. (8hrs.) 12. Threading of machine. (10 hrs.) 13. Bobbin winding &loading. (5 hrs.) 14. Practice on fabric. (8hrs.)	Basic Sewing Machine Parts and functions Machine needle Stitch formation Sewing machine practice Care and maintenance Trouble-Shooting Types of Industrial Sewing Machine(12 rs.)
		 15.Running on (10 hrs.) Straight lines Square Zigzag lines Circle Semicircle Spiral. 16. Practice on Over lock machine Threading Running Minor adjustments. (10hrs.) 	 Over lock machine Parts and functions Machine practice Care and maintenance Trouble Shooting Basic Garment Analysis (06 hrs.)
Professional Skill 230Hrs; Professional Knowledge 60 Hrs	Stitch the following using the given fabric: Seams with seam finishes, Darts, Pleats, Tucks, Gathers & Shirrs, Frill, Hem, Casing, Edge Finishing, Neck lines, Placket, (NOS: AMH/N1948)	 17. Practice of making Seams (15hrs.) Plain Seam (Straight &Curved) with seam finishes Self-Enclosed seams Top stitched seams Corded Seam Decorative seams 18. Practicing with Sewing Aids. (5 hrs) 	Seams Classification Uses Properties of Seams Seam finishes Sewing Aids Presser foots Folders Guides (06 hrs.)
	Pocket, Collar, Sleeves, Cuff.	19. Making Samples of Darts Pleats. (15hrs.)	Introducing Fullness • Darts – Necessity, type & precautions during stitching • Pleats – Necessity, type & uses (06 rs.)

 20.Making Samples of Tucks Gathers and Shirrs Frills. (10hrs.) 21.Practice of Hand stitches & Making Samples of them. (10hrs.) 	Introducing Fullness Tucks - Types &use Gathering and Shirring Flare Ruffles/Frills - Types (Straight & Circular) &uses Hand stitches Hand needles - Size &types Sewing Thread Types & Applications of hand stitches (06 hrs.)
22.Making samples of Faced Hem Edge stitched hem Double stitched hem Band hem Ease in ahem Mitered hem. (10hrs.) 23.Practice of the corner makings Self-turned With additional strip. (10 hrs.)	Hems Types Uses Corner Makings Types Uses (06 hrs.)
24.Making samples of: Casing with Drawstring Casing with elastic Casing with heading Inside applied casing Outside applied casing. (20hrs.) 25.Making samples of edge finishing: Bias facing Combination shaped facing Outside facing Self-facing Shaped facing Piping (30 hrs.)	Casing Introduction Use Edge Finishing Facings Bindings Pipings (06 hrs.)

	27.Maki (25 hrs.) • •	ng samples of different ped necklines. (25 hrs.) ng samples of Plackets: Faced Placket Continuous Placket One Piece Placket Two Piece Placket Two piece Placket with pleat Zippered Placket Lapped Fly Front Open End Invisible Visible	Necklines • Different shapes of neckline Plackets • Types • Sample makings (06 hrs.)
	Pockets Patch Insea	1	Pockets Types Design variations (06 hrs.)
	(15hrs	les of making Sleeves.	Collars Classification Collar terms Sleeves Classification Sleeve length variation Sample making of Sleeves with and without cuff. (06 hrs.)
Skill 10Hrs; the given	fabric. as Butto t Available) Studs. (32.Prad	etice of fixing fasteners ons, Hooks, Eyes, Press (6 hrs.) etice of making Button y Hand. (4 hrs.)	Trimmings • Types • Applications • Fixing of Buttons, hooks etc. • Making of Button hole (06 hrs.)

Professional Skill10Hrs; Professional Knowledge 06Hrs.	Mend the givenfabric. (NOS: AMH/N1949)	33. Practicing Darning and Patching. (10 hrs.)	Mending· Darning· Patching (06 hrs.)
Professional Skill 30Hrs; Professional Knowledge 12Hrs	Draft a pattern for Ladies' Suit and sew a Ladies' Suit with the help of the given pattern. (NOS: AMH/N1947)	34. Stitching of Ladies suit. (30 hrs.)	Drafting & developing Pattern for Ladies suit. (12 hrs.)
Professional Skill 140 hrs.; Professional Knowledge 42 Hrs	Sketch the following garments. • Ladies' Tops/ Short kurties. • Ladies' Suit. • Nightwear (one piece/ two piece). • Sari Blouse.	35. Practice of taking Body Measurements. (20 hrs.) • Alteration of garment as per requirement of customer	Human Figures • Eight Head Theory • Brief introduction about Joints and Muscles • Types of Figures Body Measurements • Importance • Types & measuring Techniques • Precautions • Measurement Charts (06 hrs.)
Dresses for New Born. Dresses for Toddlers. Dresses for Kids. (NOS: AMH/N1211)	36. Practicing different types of layout using the given patterns. (20 hrs.)	Patterns Importance Pattern Information Types of Spreading & Pattern Layout Importance Spreading methods/machines Types of layout Pattern Drafting Drafting/Pattern Terminology Principles of Pattern drafting (06hrs.)	
		37.Pattern Making, Fabric Estimation, Cutting, Sewing, Pressing & Folding of Sari Petticoat.(60hrs) 38. Checking the Fitting of the garment.(10 hrs.)	Pressing Tools Methods Importance of Pressing Trial Room Pressity Specification Sketching and drafting of Sari Petticoat.(24 hrs.)

Professional Skill 260Hrs;

Professional Knowledge 72Hrs; Construct the following garments with fitting and quality according the sketched designs.

(NOS:AMH/NO701)

- Sari Petticoat.(NOS:AMH/NO701)
- Ladies' Top / Short kurties.

(NOS:AMH/NO701)

Ladies' Suit.

(NOS:AMH/NO701)

Nightwear (one piece with Yoke).

(NOS:AMH/NO701)

 Nightwear (Two piece-Night Suit).

(NOS:AMH/NO701)

Dresses for New Born (Jhabla).

(NOS:AMH/NO701)

Dresses for Toddlers (Sun suit).

(NOS:AMH/NO701)

 Dresses for Kids (Frock).

(NOS:AMH/NO701)

 Gent's Kurta and Pyjamas.

(NOS:AMH/NO701)

Gent's Casual Shirt.

(NOS:AMH/NO701)

Gent's Trousers.

(NOS:AMH/NO701)

- 39. Practice on special industrial sewing machines (30 hrs.)
 - Double Needle Machine
 - Button Hole Machine
 - · Button Sewing Machine
 - Multipurpose Machine (Zigzag)
 - · Bar Tack machine
 - Feed off the Arm Double Needle

Mass Production Process -

- Sequence of operations
- Types of cutting machines
- Fusing Technology
- Types of Industrial Machines Used in sewing section
- Finishing (06 hrs.)

Ladies Wear

- 40. Pattern Making, Fabric Estimation, Cutting, Sewing, Pressing & Folding of the following garments with design variations
 - Ladies Tops/Short kurties
 - · Ladies suit
 - Night wear (one piece/two piece)
 - Simple Ladies Sari blouses (60 hrs.)
- 41. Checking the Fitting of the garment.(10 hrs)

Sketching and drafting of the following garments-

- Ladies Tops/Short kurties
- · Ladies suit
- Night wear (one piece/ two piece)
- Sari blouses (18 hrs.)

Kids Wear

- 42.Pattern Making, Fabric Estimation, Cutting, Sewing, Pressing & Folding of the following garments with design variations
 - Dresses for newborn
 - Dresses for Toddler
 - Dresses for Kids. (55 hrs.)
- 43. Checking the Fitting of the garment. (10 hrs.).

Sketching and drafting of the following garments-

- · Dresses for newborn
- Dresses for Toddler
- Dresses for Kids (24 hrs.)

Gents Wear

- 44.Pattern Making, Fabric
 Estimation, Cutting, Sewing,
 Pressing & Folding of the
 following garments with design
 variations
 - Kurta & Pyazama
 - Casual Shirts &Trousers
 (90 hrs.)
- 45. Checking the Fitting of the garment.(15hrs.)

Pattern Making, Fabric Estimation, Cutting, Sewing, Pressing & Folding of the following garments with design variations

- Kurta & Pyazama
- Casual Shirts &Trousers (24 hrs.)
- 46.Methods of removing different kinds of stains in fabrics. (10 hrs.)
- 47.Checking of garments in respects of –(10 hrs.)·
 - · Measurements-
 - Stitching-
 - Stains·
 - Defects-
 - · Correcting measures.

Laundry Stains

- Classification
- Removing techniques

Quality Control

- Definition, need &planning
- Types of Inspection
- Stages of Inspection
- Role of Quality Controller (06 hrs.)

Sewing Technology - Textile and Hand Work Basic Operations

Familiarization with the institute

Objectives: At the end of this exercise you shall be able to

- · state the staff structure of the institute
- · state the available trades in the institute and their activities.

The Industrial Training Institute throughout India follow the same syllabus pattern given by the National council for Vocational Training (NCVT). In India there are about 13,350 Government ITIs and Private ITI 's as per the Govt. of India, Ministry of Skill Development and Entrepreneurship (MSDE) Annual report of 2016-2017. The Government Industrial Training Institute in each state work under the Directorate of Employment and Training which is a department under the Labour Ministry in most of the states.

The Head of the industrial training institute is the Principal, under whom there is one vice-principal, Group Instructor(s) Training officers and a number of Vocational Instructor(s) Assistant Training Officer(s) and Junior Training Officer and so on as shown in the Organisation Chart of ITI. (Fig 1)

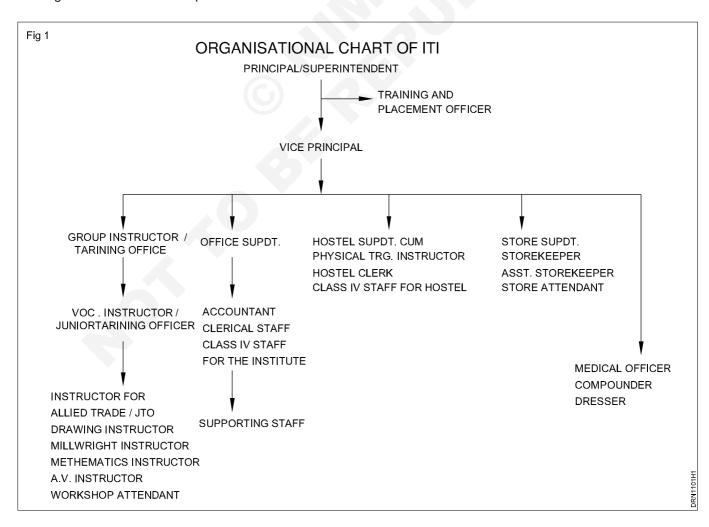
In every industrial training institute there is a store and the in charge of the store is storekeeper for inward and outward

movement of tools, equipment and consumables. The instructor will indent the training requirement on receiving from stores, the instructor will issue the training requirement to the trainees according to the graded exercises as per syllabus.

The basic moto of providing industrial training is to give hands to training to the new trainees so as to make them as skilled labour/industrial workers/or self-employed entrepreneur.

The function of stores in the ITI is to provide the raw material and machine tool equipments and to take care of machine and their maintenance.

Instructor gets the raw material and the tool equipments from the stores and issue to the trainees for training and to carry out the job.



Apparel

Exercise 1.1.02

Sewing Technology - Textile and Hand Work Basic Operations

- 1 No.

Handling of tools

Objective: At the end of this exercise you shall be able to

· identify the tools.

Requirements

Tools/Instruments

- Tape Measure - 1 No. 'L' scale - 1 No. Measure Stick - 1 No. Tailor's Art Curve - 1 No.
- Card scale
- Pattern Square Set Square
- Transparent Ruler
- Curve Rules

- Flexible Plastic ruler
- Pencil
- Eraser
- Tailor's chalk
- Tracing Wheel
- French Curve
- Seam Gauge
- Dress Makers Gauge
- **Loop Turner**

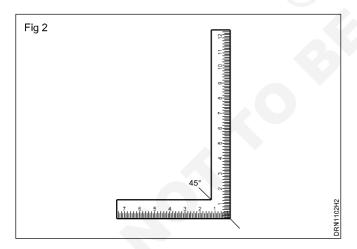
- 1 No.
- 2 Nos.
- 2 Nos.
- - 4 Nos.
 - 1 No.
 - 1 No. - 1 No.
 - 1 No.
- 1 No.

PROCEDURE

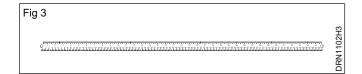
1 Tap Measure



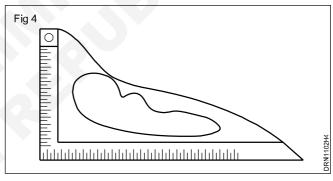
2 'L' Scale



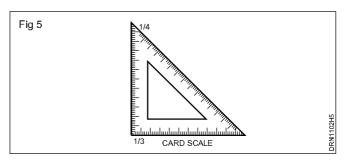
3 Measure Stick



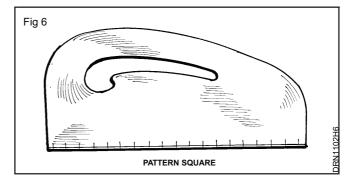
Tailor's Art Curve



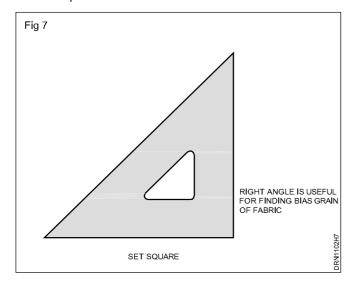
Card scale



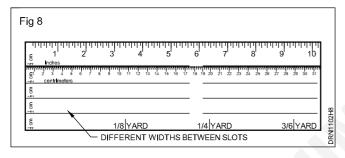
6 Pattern Square



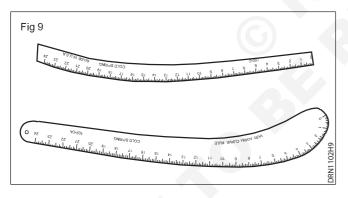
7 Set Square



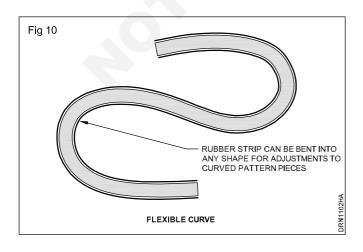
8 Transparent Ruler



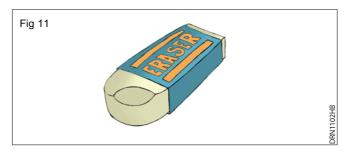
9 Curve Ruler



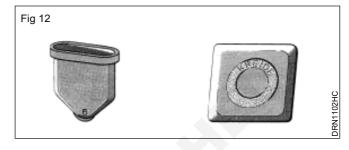
10 Flexible plastic ruler



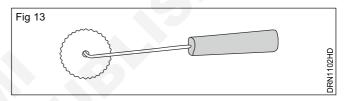
11 Eraser



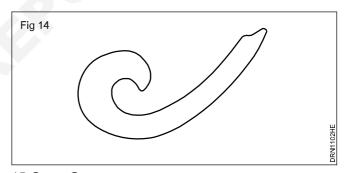
12 Tailor's Chalk



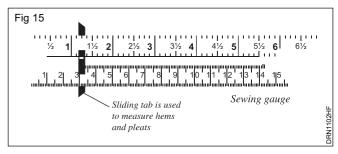
13 Tracing Wheel



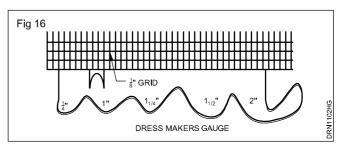
14 French Curve



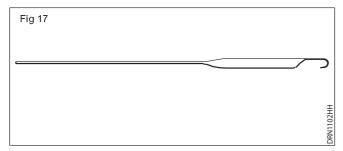
15 Seam Gauge



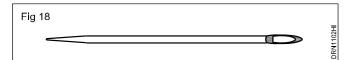
16 Dress Makers Gauge



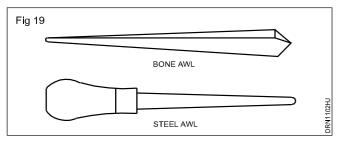
17 Loop Turner



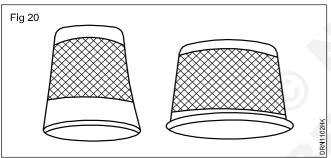
18 Bodkin



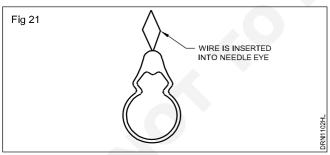
19 Awl or Stiletto



20 Thimble



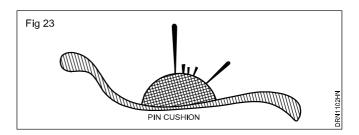
21 Needle threader



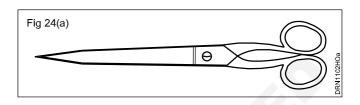
22 Dress Marker's Pin

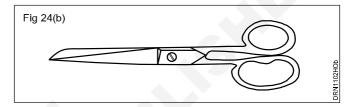


23 Pin Cushion

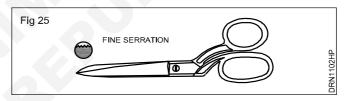


24 Paper Cutting Scissors

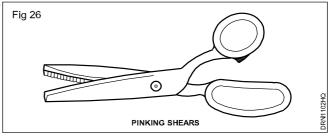




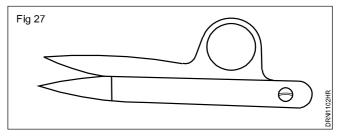
25 Fabric Cutting scissors



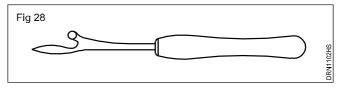
26 Pinking Shears



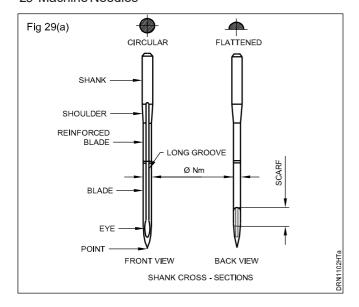
27 Thread Cutter

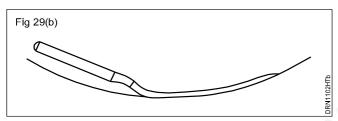


28 Seam Ripper

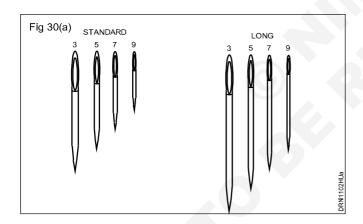


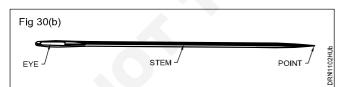
29 Machine Needles





30 Hand Needles

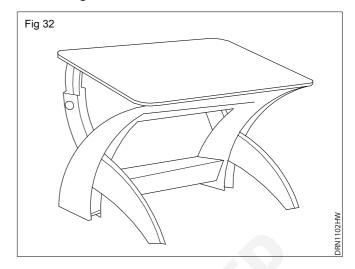




31 Drafting Table



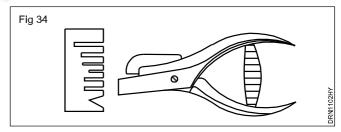
32 Pressing Table/Stand



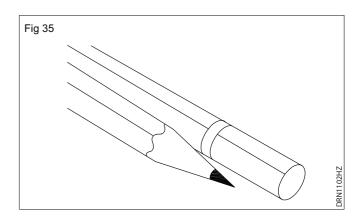
33 Spray bottle



34 Notcher



35 Pencil



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.1.02

Apparel Exercise 1.1.03

Sewing Technology - Textile and Hand Work Basic Operations

Safety precautions while handling the tools

Objective: At the end of this exercise you shall be able to

• explain the importance of safety precautions and the steps to follow.

PROCEDURE

Security is important to everyone. Coaches are responsible for maintaining a safe workplace. Extreme care is required when working on the machine. All trainers should learn the following safety.

- 1 The work area should be cleaned immediately with oil spilled on the floor.
- 2 Make sure the thread is threaded correctly on the needle before operating the machine.
- 3 Keep your feet away from the pedal when threading the needle

- 4 Turn off the motor when the machine is not working.
- 5 Avoid wearing loose clothing while operating the machine. If your hair is long it should be tied properly.
- 6 When using sharp tools such as needles, scissors, sewing needles and acupuncture, we need to make sure that the sharp part is in the hand and the grip part is in the buyer's hand.
- 7 When not using a sewing machine, store it safely in a dry, clean place away from moisture.

Apparel Exercise 1.1.04

Sewing Technology - Textile and Hand Work Basic Operations

Measurements on dummy

Objective: At the end of this exercise you shall be able to

· take measurements from dummy.

Requirements

Tools/Instruments/Equipments

· Measuring tape

- 1 No.
- Paper or note book

- as reqd.

Dress form

- 1 No.
- Pencil or pen

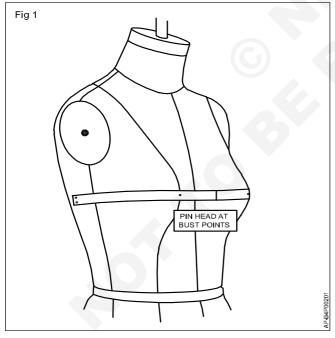
- 1 No.

PROCEDURE

TASK 1: Prepare the form for measuring

Bust bridge (Fig 1)

- 1 Cut a strip of cloth 1.5"x26".
- 2 Fold the edges to centre, and fold again.
- 3 Place across burst points, ending 1" past the side seam.
- 4 Push pins through bust points.
- 5 Mark the centre line.
- 6 Replace waist line tape, if the tape is damaged.

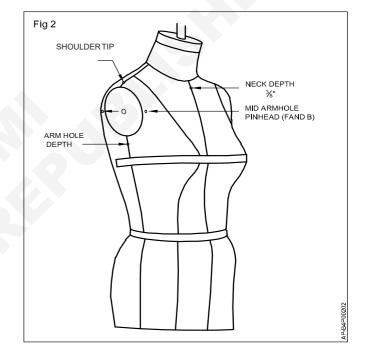


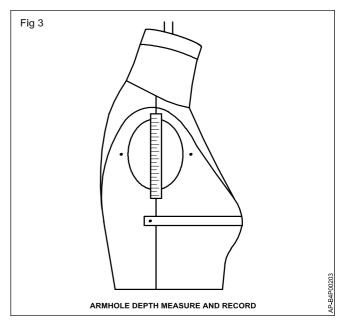
Pin head guides (Fig 2)

7 Thrust pins through shoulder tip at the ridge, or roll line, mid-armhole at level with the plate screw, and 3/8" below the centre neck.

Armhole depth chart (Fig 3)

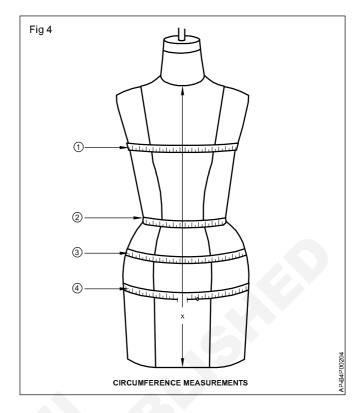
- 8 To locate the armhole depth of the form, choose the measurement that corresponds to the form size.
- 9 Measure down from armhole plate at the side seam, and thrust a pin head at the point.





TASK 2: Take circumference measurements (Fig 4)

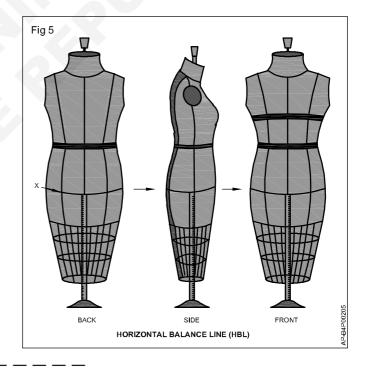
- 1 **Bust (1):** Measure across the bust points and back.
- 2 Waist (2): Measure around the waist.
- 3 **Abdomen (3):** Mark 3" below the waist line and measure around the marked portion using a measuring tape.
- 4 **Hip (4):** Measure widest area with tape parallel to the floor. Pin to mark hip level at centre front which is referred as x in the figure.



TASK 3: Take horizontal balance line (HBL) (Fig 5)

- 1 Measure form the floor to the pin mark (x) as centre front. (Fig 5)
- 2 Use this measure to measure up from the floor and pin mark centre back and side seams. Recheck the taken measurements.
- 3 Draw a line around the hip touching each of the pin marks, or place elastic around the hipline.
- 4 Pin elastic at each pinhead location.

The standard hip depth is 6 to 7 inches down from the centre front waist for juniors and petites, and 8 to 9 inches down for missy size.

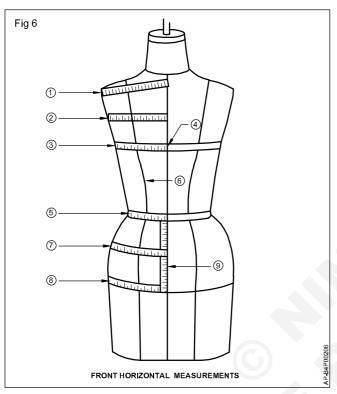


TASK 4: Take horizontal measurements

Front (Fig 6)

- Across shoulder (1): Measure from shoulder tip centre front neck.
- 2 **Across chest (2):** Measure from centre front to 1' above the mid-armhole (pin marked).
- 3 **Bust Arc (3):** Measure from centre front, over bust point, ending 2" below arm plate at side seam.
- 4 **But span (4):** Place tape across bust points, divide in half for measurement.

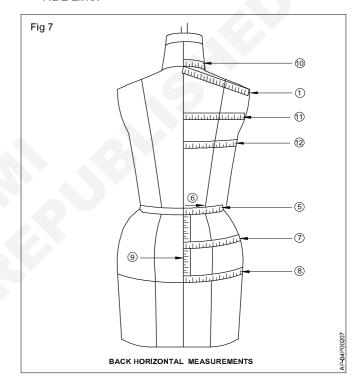
- 5 Waist arc (5): Measure from centre front waist to side waist seam.
- **Dart placement (6):** Measure from centre front to side front (princess line).
- **Abdomen arc (7):** Measure from centre front to side seam, starting 3" down from waist.
- 8 Hip arc (8): Measure from centre front to side seam on HBL line.
- 9 Hip depth (9): Measure from centre front to HBL line.



Back (Fig 7)

- **Back neck (10):** Measure from centre back neck to shoulder at neck.
- 11 Across shoulder (1): Measure from shoulder tip to centre back neck.

- **Across back (11):** Measure from centre back to 1" above the mid-armhole at ridge of pin head.
- **Back arc (12):** Measure from centre back to bottom of arm plate.
- **Waist arc (5):** Measure from centre back waist to side waist seam.
- **Dart placement (6):** Measure from centre back waist to side back (princess line).
- **Abdomen arc (7):** Measure from centre back to side seam, starting 3" down from waist.
- **Hip arc (8):** Measure from centre back to side seam on HBL line.
- **Hip depth (9):** Measure from centre back waist to HBL Line.



TASK 5: Take Vertical measurements (Fig 8)

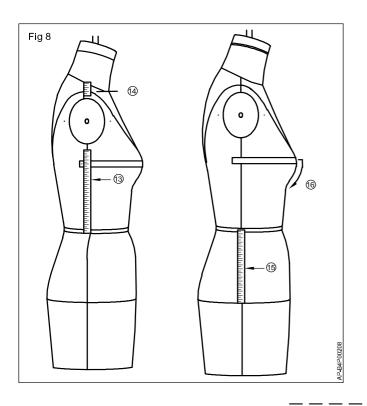
Side view (Fig 8)

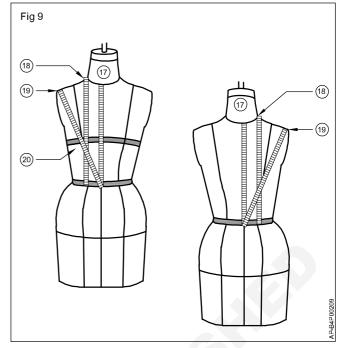
- **Side length (13):** Pin mark below the arm plate at side seam to side waist.
- **Shoulder length (14):** Measure from shoulder tip to neck.
- **Side hip depth (15):** Measure from side waist to HBL, on side of form being measured.
- **Bust radius (16):** Measure from bust point ending under bust mound.

Front & Back (Fig 9)

- **Centre length (17):** Measure from neck to waist (over bust bridge).
- **Full length (18):** Measure from waist to shoulder at neck, Parallel with centre lines.
- **Shoulder slope (19):** Measure from centre line at waist to shoulder tip (pin head mark).
- **Bust depth (20):** Measure from shoulder tip to bust point and bust radius.

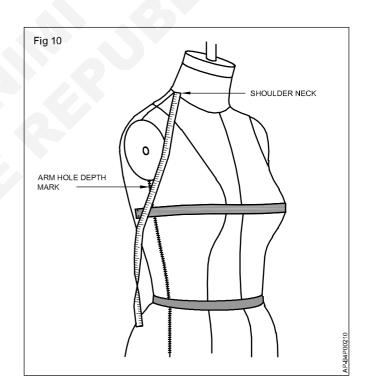
Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.1.04





TASK 6: Take strap measurements (Fig 10)

1 **Strap front:** Place metal tip of measuring tape at shoulder/neck, and measure down to pinhead mark below armhole plate. Take measurement on the same side of the tape from neck to armhole.



Apparel Exercise 1.1.05

Sewing Technology - Textile and Hand Work Basic Operations

Identification of fabric and texture

Objectives: At the end of this exercise you shall be able to

- · identify the structure of the given fabric samples
- determine the texture of the given woven fabric samples.

Requirements

Tools/Instruments

• Counting glass or magnifying lenses

- 1 No.

Woven fabric samples (in different textures 10 cms x 10 cms)

- 10 Nos

Materials

 Woven fabric, knitted fabric, Non-woven fabric, Lace fabric & Fur fabric (All should have 10 cms x 10 cms)

- 3 Nos each

PROCEDURE

TASK 1: Identify the structure of the given fabric samples

- 1 Give identification codes nos. like 1,2,3,....15 to the fabric samples.
- 2 Take the sample no.1 and place the fabric sample on the table.
- 3 Analyze the fabric structure with the help of the magnifying lense.
- 4 Compare the fabric structure with the fig 1 and identify which fabric of fig 1 is matching with the sample.



- 5 Write the name of the fabric in the respective row of sample no.1 in the following table
- 6 Repeat the above procedure for the remaining samples and fill the table.

SI. No.	Sample Code	Name of the fabric structure
1	Sample No.1	
2	Sample No.2	
3	Sample No.3	
4	Sample No.4	
5	Sample No.5	
6	Sample No.6	
7	Sample No.7	
8	Sample No.8	
9	Sample No.9	
10	Sample No.10	
11	Sample No.11	
12	Sample No.12	
13	Sample No.13	
14	Sample No.14	
15	Sample No.15	

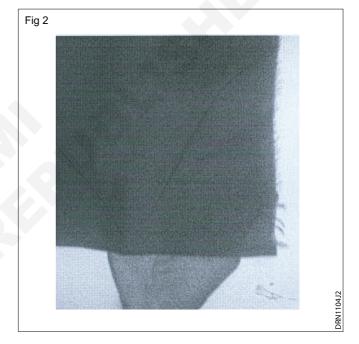
TASK 2: Determine the texture of the given woven fabric samples

- 1 Give identification codes nos. like 1,2,3,....10 to the fabric samples.
- 2 Take the sample no.1 and place the fabric sample on the table.
- 3 Slightly fold the fabric sample and touch it by the thumb and index finger of your hand and feel the thickness. (Fig 1)
- 4 Analyze whether it is a thin fabric or thick fabric or medium fabric.
- 5 If it is thin fabric write "Light weight" on the column of "Weight of the fabric" at the row of Sample No.1 in the given table below.



SI. No.	Sample Code	Weight of the fabric	Smooth or Rough	Transparent or Non Transparent
1	Sample No.1			
2	Sample No.2			
3	Sample No.3			
4	Sample No.4			
5	Sample No.5			
6	Sample No.6			
7	Sample No.7			
8	Sample No.8			
9	Sample No.9			
10	Sample No.10			

- 6 If it is thick fabric write "Heavy weight" on the column of "Weight of the fabric" at the row of Sample No.1 in the given table above.
- 7 If it is between the thick and thin, then write "Medium weight" on the column of "Weight of the fabric" at the row of Sample No.1 in the table.
- 8 Touch the fabric by your thumb and index finger and determine whether the sample is smooth or rough.
- 9 If the fabric sample is smooth then write "Smooth" on the column of "Smooth or rough" at the row of Sample No.1 in the table.
- 10 If the fabric sample is rough then write "Rough" on the column of "Smooth or rough" at the row of Sample No.1 in the table.
- 11 Place your hand below the fabric sample and check the transparency of the fabric. (Fig 2)
- 12 If you can see your hand properly through the fabric sample then write "Transparent" on the column of "Transparent or Non Transparent" at the row of Sample No.1 in the table.
- 13 If you cannot see your hand properly through the fabric sample then write "Non Transparent" on the column of "Transparent or Non Transparent" at the row of Sample No.1 in the table.



14 Repeat the above procedure for all the other samples and fill the columns of the table.

Note: Get it checked with your instructor.

Apparel Exercise 1.1.06

Sewing Technology - Textile and Hand Work Basic Operations

Handling of fabrics

Objective: At the end of this exercise you shall be able to

· Checking the fabric before cutting.

Requirements

Materials

· Any fabric

- as regd.

PROCEDURE

Checking the fabric before cutting

- 1 Soak the cloth in water/let it dry before cutting yourself.
 - Soak if it is a cotton cloth.
 - If it has shrunk before, there is no need to soak.
 - No need to soak if it is silk or wool. It will always be dry.
- 2 Iron the cloth after cleaning.
- 3 Iron the fabric behind the fabric. Make sure the fabric is threaded and look for it if it does not come to the thread according to the following procedure. Take a piece of cloth.

- 4 From a sew, pull the yarn into a cross thread.
- 5 "Cut the fabric in the line formed by pulling a thread through the fabric.
- 6 "Pull the fabric diagonally to the opposite ends to align the thread flow.
- 7 "Pull the fabric from one side to the other. "In the present tense.

Sewing Technology - Textile and Hand Work Basic Operations

Making weave samples

Objectives: At the end of this exercise you shall be able to

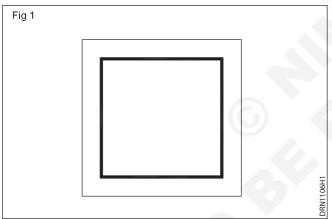
- · make warp sheet and plain weave sample
- · prepare twill weave & satin weave sample.

Requirements				
Tools/Instruments Materials				
ShearsScale (30 cms length)HB Pencil2HB PencilPencil eraser	- 1 No. - 1 No. - 1 No. - 1 No. - 1 No.	 Cotton tape (1 cm width) contrast Card board (15x15 cms) Fabric guide 	- 16 m (8m each in two colours)- 4 Nos- 1 Medium size tube	

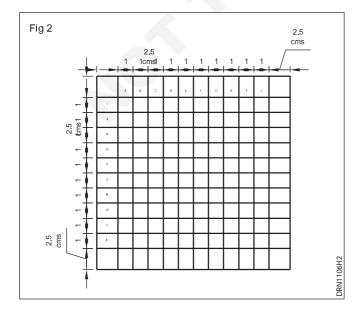
PROCEDURE

TASK 1: Make warp sheet sample (Fig 1)

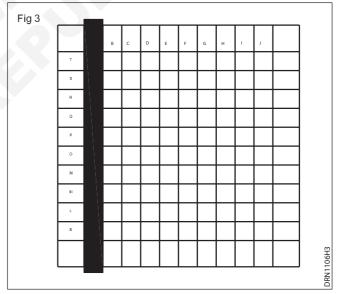
1 Take the card board and dark thick lines 2.5 Cms. from the edge all the side using HB pencil. (Fig 1)



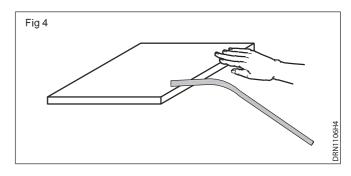
2 Draw Guide lines as shown in Fig 2 using 2H pencil. Also notations like A, B, C etc. as shown in the (Fig 3).



3 Take a cotton tape in one colour and cut 18 cm of tape with help of shears, place the tape on column an as shown in the (Fig 3)

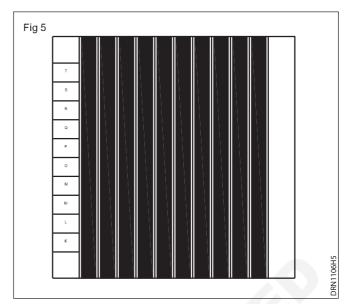


4 Measure 1.5 cms of the tape and paste it properly with the help of fabric Glue on the wrong side of the card board as shown in the (Fig 4).



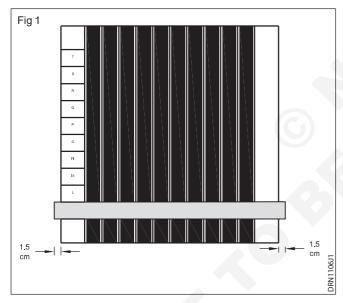
Be sure that the tape should be in straight condition and should mate h with column portion of A as in right side of the card board.

- 5 Turn the right side of the card board align the tape on column 'A' and turn the bottom portion of the tape to the right side of the card board and fix it properly with the help of glue
- 6 Repeat the above process of the remaining column B to J as shown in Fig 5.
- 7 Make another B no. of warp sheet as her above method.

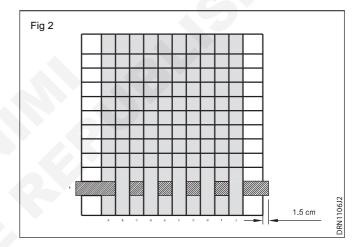


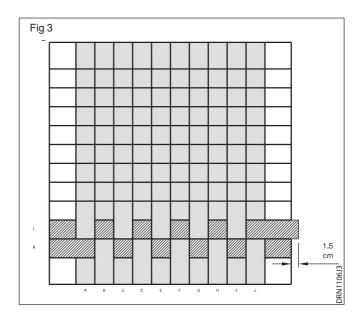
TASK 2: Make plain weave sample

- 1 Take a warp sheet, sample.
- 2 Cut 18 cm of cotton tape from contrasting colour and place on the row K as shown in the Fig 1.

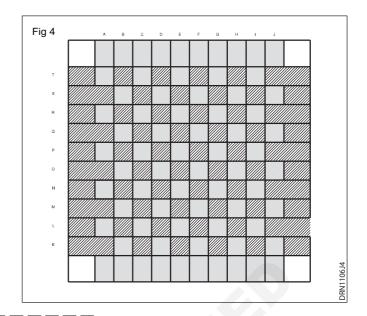


- 3 Stick the left end of the tape to the wrong side of the card board with the help of glue.
- 4 Interlace the tape into the warp sheet as shown in the Fig 2.
- 5 Stick the right end of balance tape (1.5 cm) at the wrong side of the card board.
- 6 Cut 18cm of cotton tape from contrasting colour and place on the row L on the card board.
- 7 Stick the left end of the tape to the wrong side of the card board with the help of glue.
- 8 Interlace the tape into the warp sheet as shown in the Fig 3.



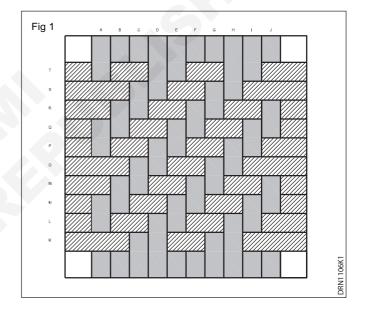


- 9 Stick the right end of balance to the (1.5 cm) at the wrong side of the card board.
- 10 Do the above procedure for the rows M to T as shown in the Fig 4.



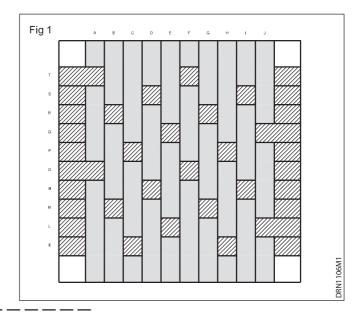
TASK 3: Make twill weave sample

- 1 Take a wrap sample
- 2 Cut 18 cms of cotton tape from contrasting colour and place on row K.
- 3 After sticking the left end of the tape interlace it as shown in the Fig 1.
- 4 Continue for other rows also by following (Fig 1).



TASK 4: Make satin weave sample

- 1 Take a wrap sample
- 2 Cut 18 cms of cotton tape from contrasting colour and place on row K.
- 3 After sticking the left end of the tape interlace it as shown in the Fig 1.
- 4 Continue for other rows also by following Fig 1.



Apparel

Exercise 1.1.08

Sewing Technology - Textile and Hand Work Basic Operations

Market survey and swatch file

Objective: At the end of this exercise you shall be able to

· how to market study of different fabrics and materials.

Requirements

Tools/Instruments

Record note

- 1 No.
- Eraser

- 1 No.

Pencil

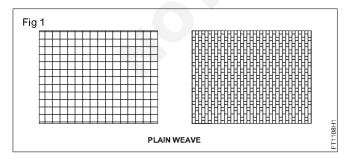
- 1 No.
- color cloth

- as regd.

PROCEDURE

How to market study of different fabrics and materials

- 1 To understand the different types of fabrics, its characteristics and end uses by seeing, feeling and collecting information from outside places like textile shops, stitching shops etc.
- 2 Go to a shop racing different variety of fabrics (like cotton, Polyester Blend, Silk, Punted etc.)
- 3 Select few samples from there in all varieties like used for dress materials, salwars, saris, shirt materials, Pants/Trousers etc. (all fabrics only)
- 4 Ask the concerned people regarding
 - a The name of fabric e.g. Cotton Printed fabric
 - b The use of it e.g. Salwar material
 - c The cost of it and how widely its accepted in the market. e.g: Rs 40/metres widely used.
 - d You try to identify if its dyed, printed, plain or embroidered. e.g: Printed.
 - e The colors of the fabric (Example White fabric, Printed fabric red flowers in white background).
 - f Try to identify the weave of the fabric if its simple/ easily identifiable. (Fig 1)



Example: If its normal simple weave its plain

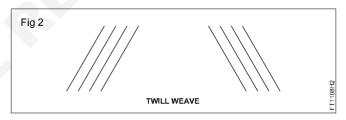
Plain Weave

If the fabric has diagonal like lines like in your jeans, its twill weave.

Twill Weave

If the fabric has soft shiny surface like satin ribbon, its satin weave. Only simple basic weaves are easy to identify, but if others like dobby, jacquard can be identified.

It will be better of the fabric has woven designs like the pallu of the silk sari, or the border of silk sari with designs it will be mostly dobby or jacquard. (Fig 2)



- 5 Record all the above findings.
- 6 Collect small sample of atleast 5cm x 5cm and paste it on a sheet of your record book.
- 7 Write the details of the pasted sample on the other sheet of the book.
- 8 Visit shops, tailor shops (to collect cut materials) Upholstery stitching shops (To cut furnishing materials)
- 9 Collect as many as samples possible, minimum
 - a 5 samples each in plain, twill, satin weaves.
 - b 5 samples each in printed and embroidery fabrics.
 - c 2 samples each in shirt material, sari, bed sheet, dress material, uniform material.

Sewing Technology - Sewing Machine Operation

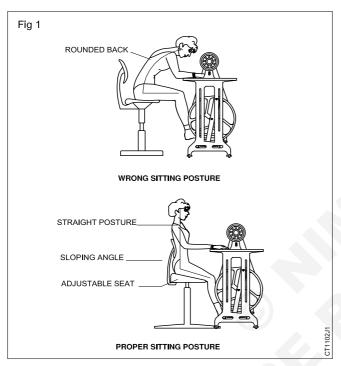
Practice on industrial single needle lock stitch machine, ergonomic principle of sitting on sewing machine

Objective: At the end of this exercise you shall be able to

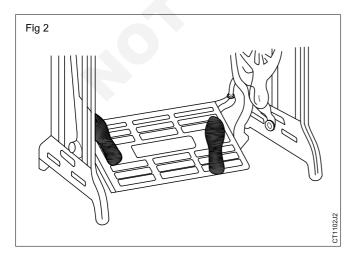
· take the correct sitting position.

PROCEDURE

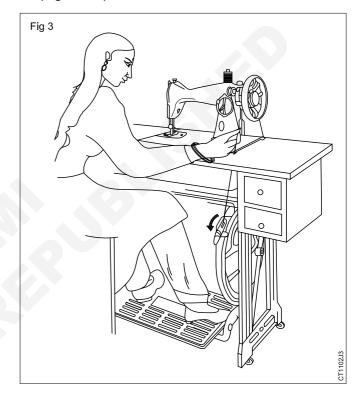
1 Take the correct sitting position while work on sewing machine (Fig 1)

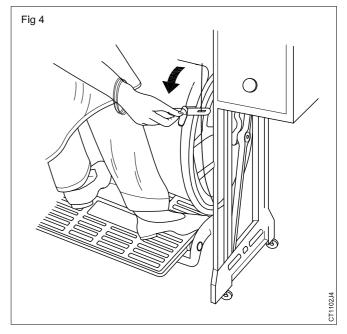


2 While stitching on machine light (window) should face you from the left side. Height of the Stool / Chair should be according to the body height, (i.e.), while stitching the upper body should not be blended. Don't sit on the edge but on the middle of the seat. Take care that your clothes don't touch the machine. Set your feet in right position on the treadle. (Fig 2)



3 Set the belt on flywheel and treadle wheel. (Figs 3 & 4).





Sewing Technology - Sewing Machine Operation

Speed control

Objective: At the end of this exercise you shall be able to

• practice on single needle lock stitch machine.

Requirements

Tools/Instruments

Single needle lock stitch machine - 1 No.

PROCEDURE

Identify the major parts of single needle lock stitch machine and their functions

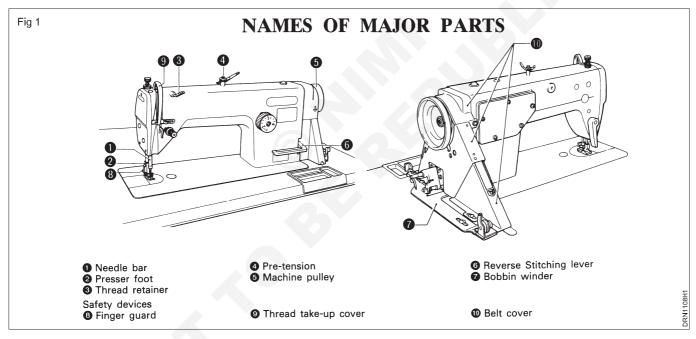
Needle bar

- 1 Needle bar holds the needle at one end with the help of a screw
- 2 It is a moving part to form stitches with the needle

3 Its main function is to give the needle its motion.

Presser foot

It is a shoe shaped component fixed to the bar to hold the cloth while sewing.



a Thread retainer

It is small hook through which thread runs directly to the needle in a vertical direction.

b Pre-tension

It is used to make threading easier and also prevent the thread from coming out at the sewing start position.

c Mechanic pulley

It is a rotating part to connected with main shaft and motor with the help of belt.

d Reverse stitching lever

It is used to stitch the fabric in reverse direction (for rubbing).

e Bobbin winder

It winds the thread several times around the bobbin and thread should be wound evenly on to the bobbin if not there may be trouble in stitching or unevenness in stitch tension.

f Finger guard

It is safe guard to prevent the finger going under the

g Thread take up lever cover

It avoids the accident during sewing the window glass is placed in a machine.

h Belt cover

To prevent the accident during sewing, the belt has cover

Apparel Exercise 1.2.11

Sewing Technology - Sewing Machine Operation

- 1 No.

Practice on paper

Objective: At the end of this exercise you shall be able to

· make different types of shapes using paper

Requirements

Tools/Instruments

Single needle lock stich machine - 1 No.

Equipment/Machines

Bobbin, Bobbin case

- Needle
- 1 No. Thread - 1 No.

Materials

A4 sheet - 10 Nos.

PROCEDURE

1 Take the paper and draw lines 1 cm apart under each

- 2 Start the machine and lift the presser boot lifter and place the paper under it.
- 3 Place both hands on the paper and begin to gently pedal carefully.
- 4 Monitor the movements of the needle and paper and the speed of the machine.
- 5 Repeat this exercise until you have finished sewing all the lines.
- 6 To sew angle curves, lower the pressure foot so that the needle is inside the paper and sew with horizontal lines.
- Practice stitching at the vertically curved edges and stopping the time lines and turning the paper.
- By training in this way, mistakes and irregular stitches that occur when sewing clothes can be prevented.

Apparel Exercise 1.2.12

Sewing Technology -Sewing Machine Operation

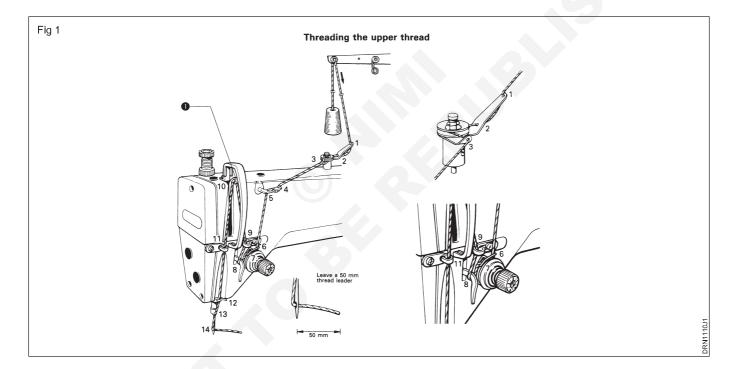
Threading of machine

Objectives: At the end of this exercise you shall be able to

- · threadle the lower thread and upper thread
- · wind the bobbin with lower thread
- · remove the bobbin from bobbin case
- insert the needle with needle bar
- · adjust the stitch length, thread tension and presser foot pressure.

Requirements			
Tools/Instruments	Equipment/Machines		
Bobbin & bobbin case Thread & needle each	- 1 No. - 1 No.	Single needle lock stitch machine	- 1 No.

PROCEDURE



Threading the upper thread to the machine

- 1 Before threading the upper thread. Raise the thread take up lever. (Fig 1)
- 2 This will make threading easier and it will prevent the thread from coming out while sewing
- 3 Thread the machine as shown in Fig 1 according to the points mentioned in it.

Apparel Exercise 1.2.13

Sewing Technology - Sewing Machine Operation

Bobbin winding & Loading

Objective: At the end of this exercise you shall be able to

· wind the bobbin with lower thread.

Requirements

Tools/Instruments

Single needle lock stitch machine - 1 No.

Equipment/Machines

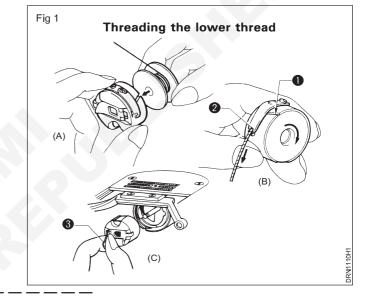
· Bobbin & bobbin case

- 1 No.
- Thread 1 No.

PROCEDURE

TASK 1: Threading the lower thread to the bobbin insert it into the bobbin case

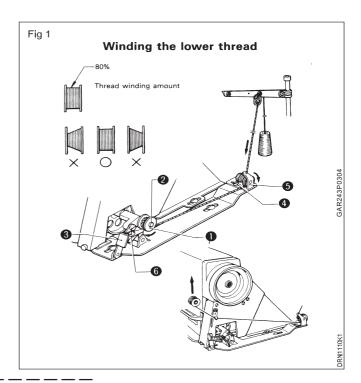
- 1 Hold the bobbin towards left hand, so that the thread winds to the right.
- 2 Insert the bobbin into the bobbin case. (Fig 1)
- 3 Pass the thread through the slot as shown Fig 1a and under the tension spring has shown in Fig 1b.
- 4 Pull the thread out through the hole in the end of the tension spring
- 5 Check that the bobbin turns clockwise when the thread is pulled
- 6 Hold the latch on the bobbin case into the rotary hook. (Fig 1c)



TASK 2: Wind the lower thread to the bobbin

- 1 Turn on the power switch
- 2 Place the bobbin onto the bobbin winder shaft
- 3 Push down the bobbin presser arm as far as it will go. (Fig 1)
- 4 Wind the thread several times around the bobbin in the direction indicated by the arrow.
- 5 Depress the treadle, lower thread winding will then start.
- 6 Winding of the lower thread is completed, remove the bobbin and trim the thread. (Fig 1)
- 7 Loosen the screw, if the thread cannot be wound on evenly, move the bobbin winder guide to left or right.
- 8 Tighten the adjusting screw to wind more thread onto the bottom.

The amount of thread wound onto the bobbin should be maximum of 80% of the bobbin capacity.



Sewing Technology - Sewing Machine Operation

Practice on fabric stitching in single needle lock stitch machine

- 1 No.

- 1 No.

- 1 No.

- 1 No. - 1 No.

- 1 No.

Objectives: At the end of this exercise you shall be able to

- · practice on speed control of the lock stitch sewing machine
- · perform stitch lines in different shape on fabric and fabric.

Requirements

Tools/Instruments

- Single needle lock stitch machine
- Bobbin & bobbin case
- Thread & needle each
- Measuring tape
- Scale
- Pencil

Materials

- A4 size papers
 - 10 Nos
- Cotton fabric (cambric/poplin)
 - 0.15m x 0.30m

- 1 No.

PROCEDURE

TASK 1: Practice on speed control of the lock stitch sewing machine

- 1 Switch on the sewing machine.
- 2 Raise the process foot up
- 3 Take one paper and place it below the presser foot and down the presser foot with the help of Presser foot lifter.
- Keep the both hands on paper. Concentrate and slightly press the pedal.
- 5 Note that the needle and paper the movement. Also note the speed of the machine.
- 6 Stop the machine by removing the foot from the pedal.
- 7 Practice the above procedure until to get the speed

TASK 2: Perform stitch lines in different shape and fabric

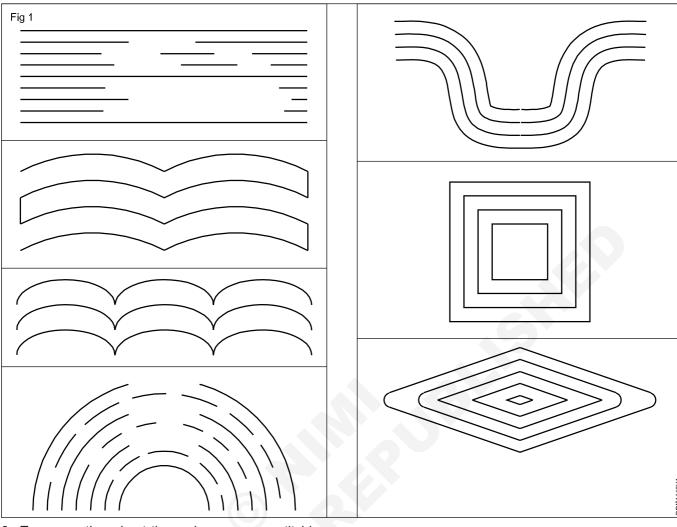
- 1 Draw lines on A4 paper
- 2 Draw each exercise twice on one sheet. Use Pencil and scale (Fig. 1)
- 3 Place the paper under the presser foot, Keeping excess material on the left side. While stitching on paper don't thread the needle.
- Press down the presser foot lifter of sewing machine by right hand and fix the material under the presser foot. Keep the mark on material under the needle point under the presser foot.
- 5 Start moving the treadle, while you push the fly wheel of the machine by right hand towards yourself.
- 6 Continue the movement of the treadle with your feet. While stitching, control the material with both hands. With the movement of machine, the feed-dog will automatically transport the material but you have to pay attention on the needle and presser foot to maintain the correct line of the stitches.

Keep full tension on the material and needle. Take care that your clothes are not caught in the treadle wheel of the machine. Save your fingers from needle while controlling the cloth as machine stitching is faster than hand stitching.

- 7 In the same way, practice on fabric with threading the needle and bobbin.
- 8 Now perform all the stitch lines once on double layered cloth of 20 x 22.5 cm. Cut the material for 7 sets (i.e. 14 pieces), put two pieces together above each other, bast and stitch all around leaving 0.5 cm from all edges. Take excess material (20 x 45 cm) to perform the straight stitch lines. While working on the curved stitches, insert brown sheet underneath the material.

Before you start stitching check thread tension of upper and lower thread.

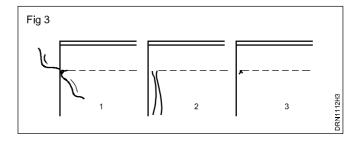
Running on



- 9 To secure threads at the end use reverse stitching mechanism. Place these back stitches over the previous stitch or just inside the previous stitch line. (Fig 2)
- Fig 2

Don't stitch beyond the cut edge of the fabric, otherwise the fabric might be pulled down into the needle plate hole.

- 10 You can also tie the thread ends. Therefore, you first have to bring lower thread to the right side of the fabric.
- 11 Pull on the upper thread to catch the lower thread. Then pull it through completely. Tie threads together and trim away the excess threads. (Fig 3)



Sewing Technology - Sewing Machine Operation

Practice on over lock machine

Objectives: At the end of this exercise you shall be able to

- · identify the parts of over lock machine components
- · threadle the over lock machine and adjust the stitch length
- · adjust the stitch length
- · change differential feed mechanism.

Requirements			
Machine		Materials	
 Over lock machine 	- 1 No.	• Thread	- as required
Tools		• Fabric	- as required
 Scissors 	- 1 No.		
 Screw driver 	- 1 No.		
• Trimmer	- 1 No.		

PROCEDURE

TASK 1: Identify the major parts of over lock machine (Fig 1)

1 Oil window glass

It is used to indicates the oil level in the oil tank

2 Balance wheel

On the balance wheel the stitch length specification is given.

3 Side plate

After threading the looper and during stitching ensure the plate to be closed completely.

4 Tension disc

For 5 thread over 2 needle thread tension disc and 2 looper tension is given.

5 Presser foot pressure hub

Based on the fabric the tension will be adjusted by using pressure foot nub.

6 Presserfoot

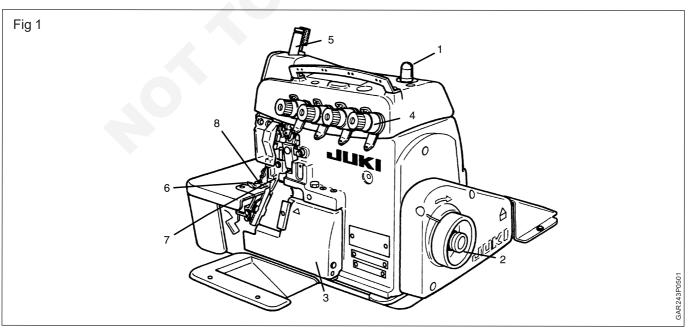
Compensating pressure is given to hold the fabric and avoiding ply shift.

7 Feed dog

Differential feed dog is placed.

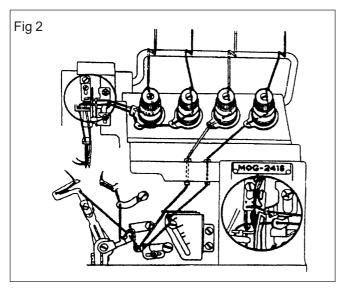
8 Knife

Adjacent the needle, the blade is placed to cut the raw edges then start the sewing process.



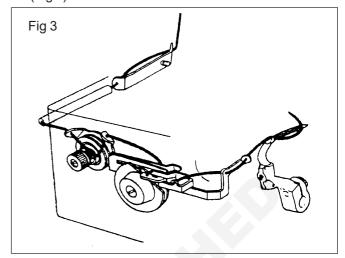
TASK 2: Threading the overlock machine

1 Thread the over lock machine. (Fig 2)



2 1st thread comes from the spool stand inserted into the 1st needle.

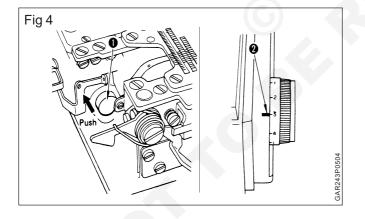
- 3 2nd thread for the second needle.
- 4 3rd thread from spool drawn to the back side looper. (Fig 3)



5 4th and 5th thread for the lower assemble loopers.

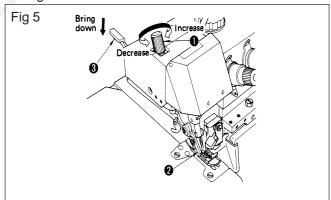
TASK 3: Adjust the stitch length

- Slowly turn the hand wheel as keep depressing push button will find a point at which the push button goes in further.
- 2 Maintain the above condition, align the desired scale mark on the hand wheel with the white mark on the belt cover.
- 3 Reset the push button after setting the dial. (Fig 4)



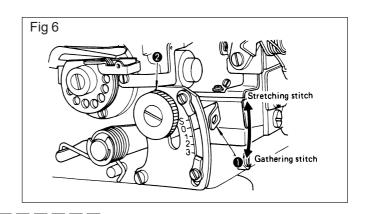
Presser foot pressure and lifter

- 4 Adjust the screw which is turned towards clock wise, the pressure increase when the screw is lined counter clockwise.
- 5 Side ways bring down presser lifting lever, whenever the presser foot is returned to its original position be sure to bring up the presser lifting lever as shown in the Fig 5.



TASK 4: Change the differential feed mechanism

- 1 Loosen differential feed lock nut. Move lever up for stretching as down form the gather stitch.
- 2 Position 'S' provides a differential feed ratio of 1:0, 64, while it provides 1:1 stitching stitch.
- 3 Gathering stitch can be set up to a differential feed ratio of 1:1:76 and up to 1:2:9 as shown in the Fig 6.



Sewing Technology - Basic Construction

Practice of making seams

Objective: At the end of this exercise you shall be able to

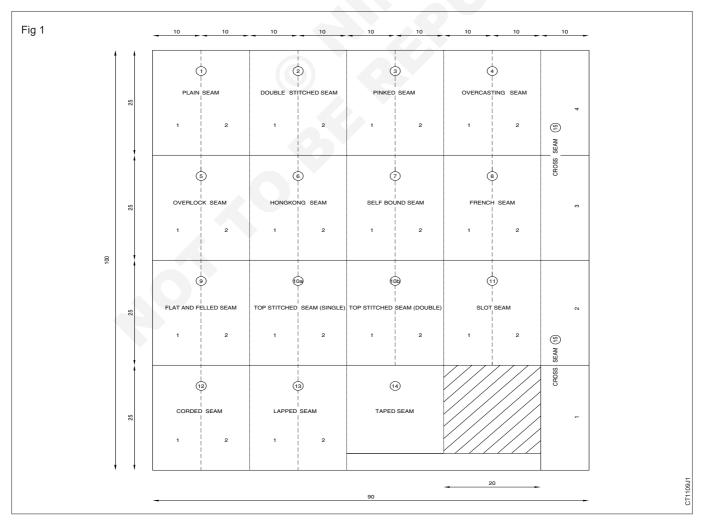
· prepare kinds of seam and seam finish.

Requirements **Tools / Equipments Materials** Single needle Industrial lock Long cloth - 1 m x 0.90 m stitch machine - 1 No. Cord - 0.30 m Overlock machine - 1 No. Sewing thread - 1 No. Pinking shears - 1 No. Dress maker's - 1 box Hand needle - 1 No. Scale - 1 No. Shears - 1 No.

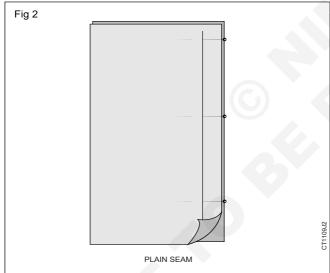
PROCEDURE

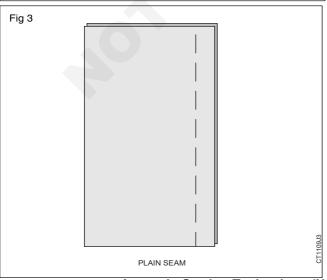
Prepare different kinds of seam and seam finish

1 Mark and cut the pieces for different samples of seams and seam finish from the given material. All pieces are of the size 25×10 cm; except the piece for taped seam (20×20 cm); refer to layout. (Fig 1)

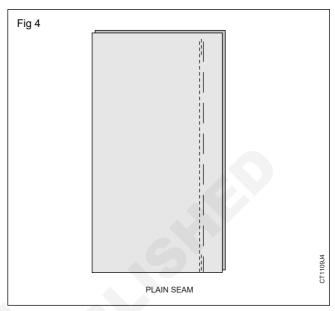


- 2 Stitch the seams and seam finish in the sequence given below:
 - Plain seam (pressed open)
 - Double stitched seam
 - Pinked seam
 - Overcasting seam
 - Overlock seam
 - Hong Kong
 - Self-bound seam
 - French seam
 - Flat and felled seam
 - Top stitched seam (single and double)
 - Slot seam
 - Corded seam
 - Lapped seam
 - Taped seam
 - Cross seam
- 3 **Plain seam:** Take two pieces of fabric (25 x 10 cm each). Mark a line on one of the pieces 1 cm away from the edge lengthwise. Mark from the wrong side. Pin both pieces perpendicular to the seam line in regular intervals keeping the right sides of fabric together. (Fig 2)
- 4 Based on the line by hand and remove the pins. (Fig 3)

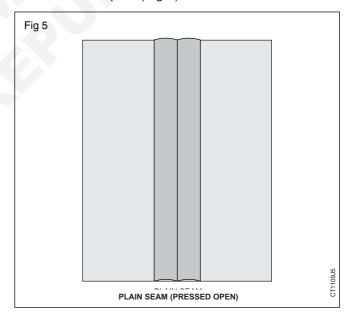




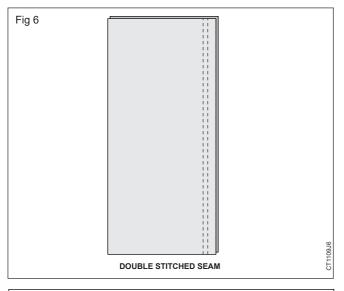
- 5 Position the needle on the seamline (i.e. close to basting line) 1cm from the upper edge. Lower pressure foot. Stitch back to the end, then stitch forward on seamline close to but not through the basting line.
- 6 Here also stitch back 1 cm at the end. Trim and remove basting threads. (Fig 4)

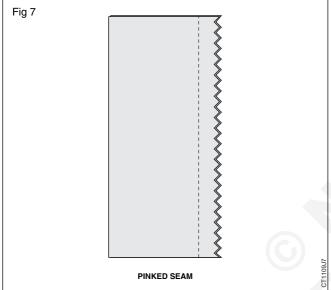


7 Open the two pieces of fabric and press the seam allowances open. (Fig 5)



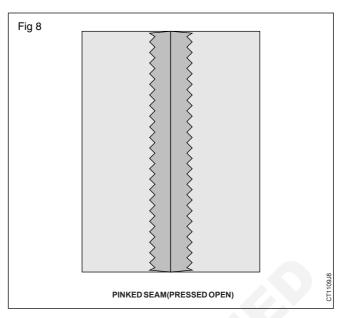
- 8 **Double stitched seam** (used in heavy and stretch fabric for longer life of seam.): Take two pieces of fabric. Mark two lines parallel to the raw edge, 0.7 cm and 1 cm away from the raw edge. Stitch a plain seam on each of the marked lines. (Fig 6)
- 9 **Pinked seam** (used to avoid fraying of edges.): Form a plain seam at a distance of 1.5 cm from the raw edge.
- 10 Pink the edges of both seam allowances by using pinking shears. (Fig 7)

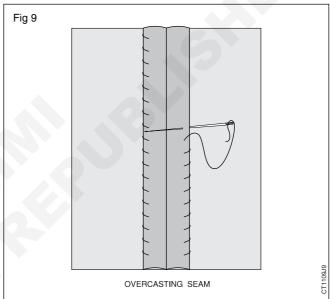


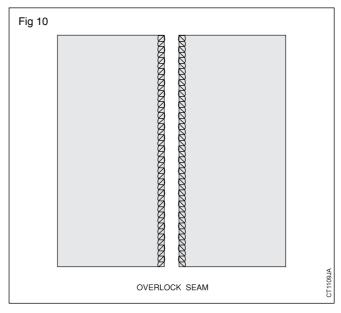


For best results, do not fully open the scissors or close all the way to the points. If the fabric is crisp and of light weight, it is possible to trim two edges at once, otherwise do one edge at a time. Pinking will not prevent fraying totally.

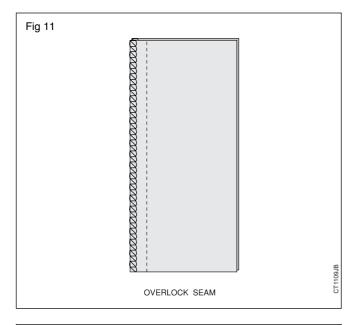
- 11 Then press the seam open. (Fig 8)
- 12 **Overcasting seam** (used to finish raw edges.): Form a plain seam pressed open.
- 13 Make diagonal (overcasting) stitches by hand at the edge of each seam allowance approximately 3 mm in depth and spaced 6 mm apart. Do not pull the thread tight. Maintain equal distance in depth and distance. (Fig 9)
- 14 **Overlock seam** (most common seam finish.): Two methods are applicable to perform this kind of seam finish.
- 15 Take two pieces of fabric and stitch the edges with overlock machine separately. (Fig 10)
- 16 Join both pieces right sides together with plain seam. (Fig 11)
- 17 Press open the seam (Fig 12).

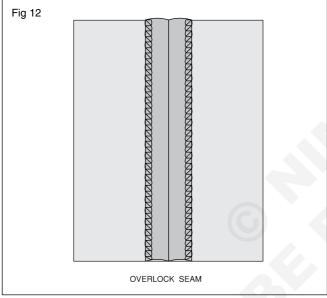




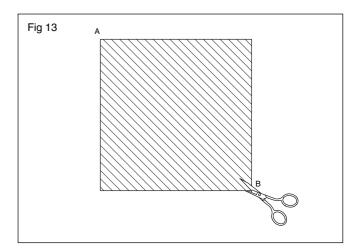


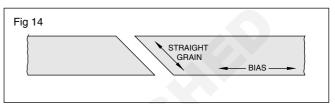
18 **Or:** Join both pieces with plain seam (1 cm seam allowance). Press open and finish each seam allowance with overlock machine separately.

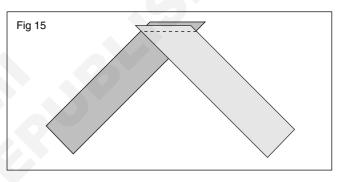


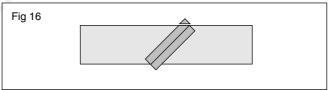


- 19 **Joining bias strips:** Take a square piece of fabric (size 20 x 20 cm) and draw a line diagonally between 2 opposite corners, between A and B.
- 20 Draw parallel lines at a distance of 2.5 cm on both the sides of the diagonal line. Cut on the drawn lines to make bias strips. (Fig 13)
- 21 To join the bias strips place the strips on a flat surface, angles matching. (Fig 14)
- 22 Place one strip on the other with right sides together. Pin them with seamlines matching. Strips should form 'V' shape exactly as shown. Take and stitch together at a distance of 0.5 cm from the edge. (Fig 15)
- 23 Press open the seam carefully so that bias edges of strips do not stretch, because the bias edges stretch easily and loose shape.
- 24 Cut the extended points to make the bias edge of the strip straight. (Fig 16)
- 25 **Hongkong** (seam finish for heavy fabrics):Take two pieces of 25 x 10 cm and join them with plain seam pressed open. Give 1.5 cm seam allowance.



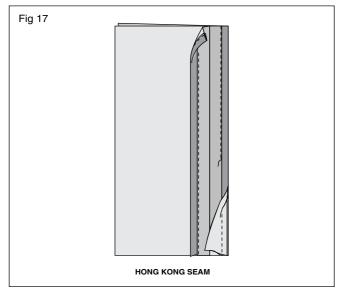


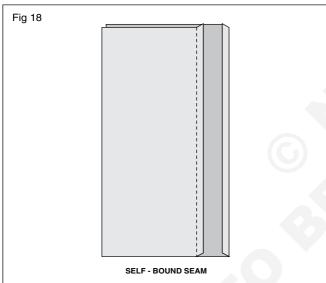


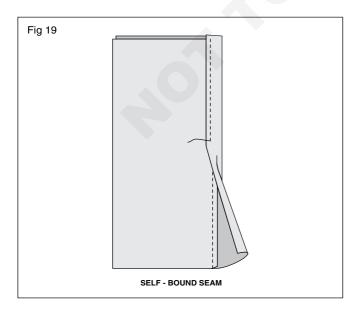


- 26 Place one bias strip on the seam allowance, edges congruently together with right sides, and stitch at a distance of 0.5 cm from the raw edge.
- 27 Turn the bias strip over the edge to the underside and turn the other edge of the strip 0.5 cm inside and press it.
- 28 Set this folded edge up to the seam. Tack it. From the right side, stitch in the crevice of the first stitching. Trim the unfinished edge of the bias. (Fig 17)
- 29 Repeat it on the other side of the seam allowance.
- 30 **Self bound seam** (seam finish in light weight fabrics.): Stitch a pressed open seam giving 2 cm seam allowance. Trim one seam allowance to 3 mm. Turn the other seam allowance by 3 mm and press. (Fig 18)
- 31 Turn and press again and bring the folded edge to the seam line so that the trimmed edge is now enclosed. Stitch close to the fold as near as possible to the first line of stitching. (Fig 19)
- 32 **French seam** (seam finish for tops and shirts used in loose woven fabrics.): The French seam is stitched

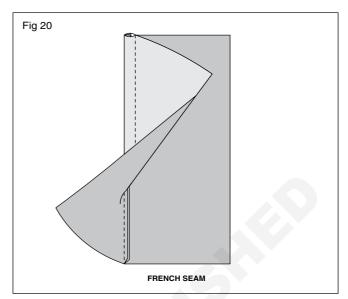
twice, first from the right side and then from the wrong side. Take two pieces of fabric and place them with wrong sides together. Stitch at a distance of 3 mm from the edge on the right side. Trim the seam allowance.



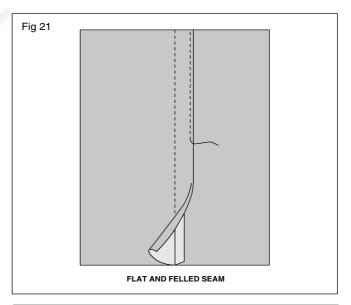




- 33 Press the seam allowances both to one side.
- 34 Fold right sides together, with stitched line exactly on the edge fold, and press again.
- 35 Stitch a seam line 0.6 cm away from the edge. (Fig 20)



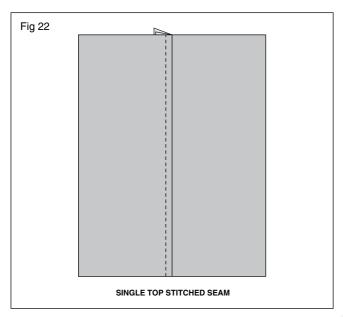
- 36 **Flat and felled seam** (used in side seams of tops, shirts, denims etc. trousers, crotch attachment, trouser inseam and side seam, suitable for heavy cotton fabrics.): The flat felled seam is formed on the right side of the fabric. With wrong sides of the fabric together form a pressed open seam at a distance of 1 cm from the edge.
- 37 Trim one side of the seam allowance leaving 3 mm. Fold edge of other seam allowance by 3 mm to the wrong side. Press, baste and stitch this folded edge to the fabric.
- 38 Remove the basting and press it. (Fig 21)



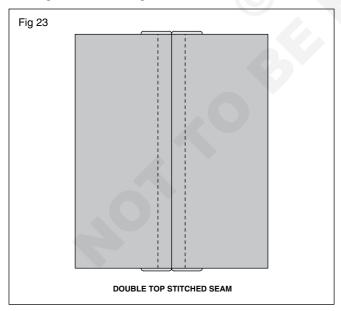
Since the seam is formed on right side of the fabric you must take care to keep the seam width uniform.

39 **Top stitched seams** (for longer lasting seams and decorative purpose)

- 40 **Single top stitched seam:** Press and flat the seam allowance of plain seam to one side and press it.
- 41 Turn the fabric to the right side and stitch seam line at a distance of 2 mm from the previous seam line over the seam allowance side. (Fig 22)
- 42 Press it.

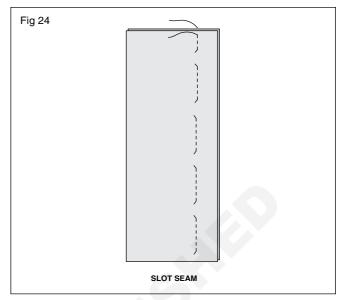


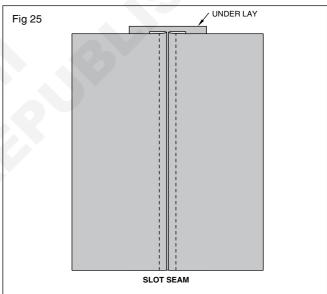
- 43 **Double top stitched seam:** Form a plain seam and press the seam allowance open (to both sides). Turn the fabric to the right side and stitch two seams parallel (each 3 mm away on either side of 1st seam) over the seam allowance. (Fig 23)
- 44 **Slot seam** (decorative purpose.): Increase the stitch length of the sewing machine.



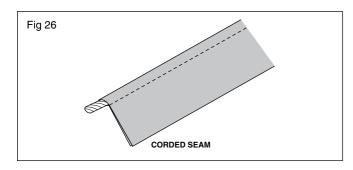
- 45 Baste with machine on the seam line, leaving long threads at the end. Clip bobbin thread at every fifth stitch. (Fig 24)
- 46 Press the seam open. Cut the underlay piece of same or contrasting fabric (of size 25 x 4 cm). Fold the underlay lengthwise and form a crease line. Under the seam line match the crease line of underlay. Place it

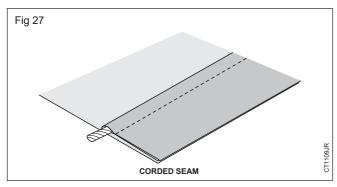
on the pressed open seam and baste it along the raw edge. Top stitch at a distance of 0.5 cm from the centre on each side. Stitch from the right side of fabric. Pull out the basting threads. Press it. (Fig 25)

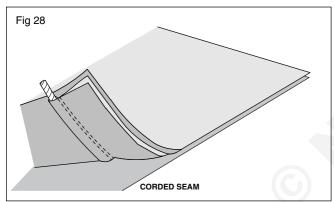




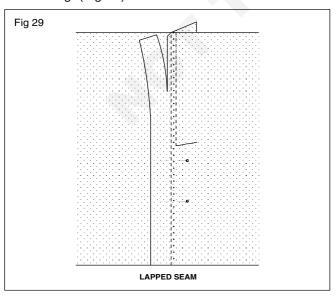
- 47 **Corded seam** (decorative purpose.): Cut a bias strip 3 cm of width.
- 48 Take the bias strip and fold it with wrong sides together. Place the cord at the folded side in between two layers of the strip. In place of the pressure foot attach zipper foot or ordinary foot and stitch a seam line just near the cord. (Fig 26)
- 49 Take one piece of fabric, mark on the right side a seam line 1 cm from the edge; then place the above strip on the seam line having raw edge of the corded strip towards raw edge of the fabric. Place the stitches just to the left of the first stitch line. (Fig 27)
- 50 Take the other piece of fabric. Place seam allowances with right sides together and cording in between. Use the original line of stitching as a guide and stitch through all layers, crowding the stitches between cord and first stitch line. The last stitch line should be placed slightly closer to the cord. So no stitches will be visible on the right side. (Fig 28)



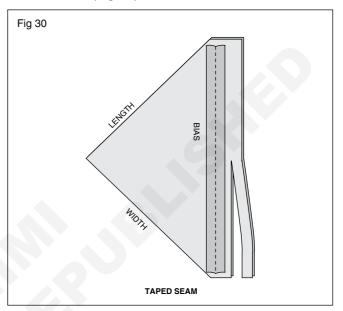




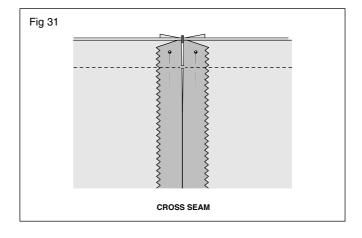
- 51 **Lapped seam** (used to reduce bulk of seam allowance, especially on interfacing and interlining.): Mark a line 1 cm from each edge of two pieces of fabric.
- 52 Lap one edge of the sample piece over the other with lines meeting in the centre of overlapping portion and baste it. Place a row of straight stitches on either side of the mark. Trim both seam allowances close to stitching. (Fig 29)



- 53 **Taped seam** (specially placed on stretch material and on bias joints to prevent stretching and breaking of seam thread.): Cut a piece of cloth 20 x 20 and cut it diagonally from the centre. Stitch a plain seam 1 cm from the long diagonal cutting lines with right sides of fabric together.
- 54 Take a piece of selvedge or tape in straight grain (30 x 1.5 cm). Fold the tape on its center.
- 55 Place the fold of tape exactly on the previous seam line, then stitch a straight seam on the line.
- 56 Cut the excess length of the tape and trim seam allowance. (Fig 30)



- 57 **Cross seam** (used to join 2 seamed parts crosswise for example for crotch attachment.): Take four pieces and join two at a time with plain seam.
- 58 Cover one piece with the other with right sides together, seam lines aligned.
- 59 Pin through both seam lines with a fine needle. Then pin through both seam allowances on each side of the matched seam lines.
 - Stitch a straight seam line in right angle to the first seam lines.
- 60 When the seam is stitched, trim all the corners of the seam allowances diagonally to reduce bulk. (Fig 31)



Apparel Exercise 1.3.18

Sewing Technology - Basic Construction

Practice with sewing aids

Objective: At the end of this exercise you shall be able to

• use special attachments in single needle lock stitch machine.

Requirements

Tools/Instruments

- Single needle lock stitch machine - 1 No. Special attachments - Hinged presser foot Gathering foot - 1 No. Zipper foot - 1 No. Invisible zipper foot-1 No. Ruffler foot - 1 No. Tucker foot -1 No. Hemmer foot - 1 No. **Button foot** - 1 No. Button hole far - 1 No. Cording foot - 1 No. Single turn tape binder - 1 No.
- Lap seam folder
 Yoke setter
 Flat stitching guide
 Swing arm stitching guide
 Swing arm stitching guide
 Cylindrical stitching guide
 T No.
 Seam gauge
 1 No.
 1 No.
 1 No.

Materials

- 1 No.

Cotton fabric (cambric/ poplin)
Zip
Button
- 0.20 m
- 1 No.
- 1 No.

PROCEDURE

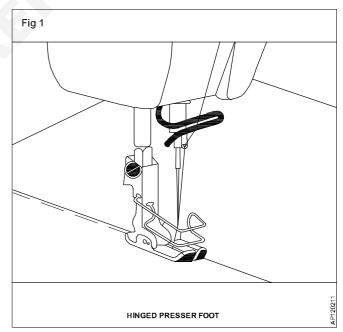
Use special attachments in single needle lock stitching machine

Right angle double foot binder

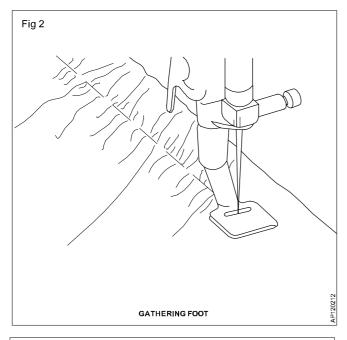
1 The following are some of the special sewing machine attachments. View the demonstration and observe the uses of these attachments and use when required.

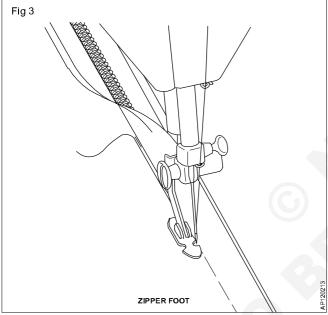
2 Foot Attachment

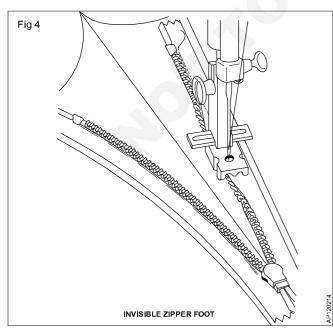
- 3 Replace the presser foot of the sewing machine, with the special foot attachment to perform special operation.
- 4 Hinged presser foot when attached to the presser foot bar, it holds the fabric & feeds as well as it adjusts its left, right or both the fingers of to raise or lower according to variations in the thickness being sewn. (Fig 1)
- 5 For gathering fabric by machine, fix the gathering foot, which automatically gathers with each stitch machine takes. The fabric will be gathered closely zipper foot is used to stitch any seam with more bulk on one side than the other. It is used for zipper attachment, covering cord etc. The foot is set at the left or right side of the needle as required while sewing. (Fig 2)
- 6 Zipper foot is used to stitch any seam with more bulk on one side than the other. It is used for zipper attachments, covering cord etc. The foot is set at the left or right side of the needle as required while sewing (Fig 3)

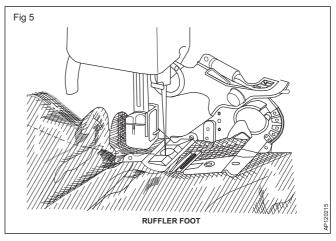


- 7 This special foot is the other type of zipper use for invisible zipper application. It fits all makes of machine. Bottom of the foot has two channels through which zipper coils pass while zipper is being stitched. (Fig 4)
- 8 The ruffler attachment folds the fabric automatically. The cloth is entrapped in the bent place and frills go on shaping. It is especially used for decorative purpose with longer stitches. (Fig 5)

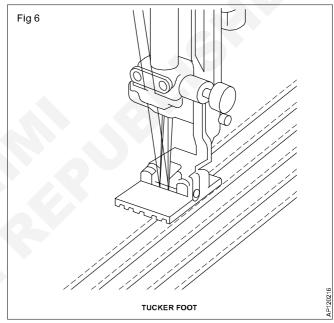








9 The tucker foot when attached and stitched, it automatically forms pin tucks by its groves. This foot is available with different numbers of grooves and is used with a twin needle. (Fig 6)

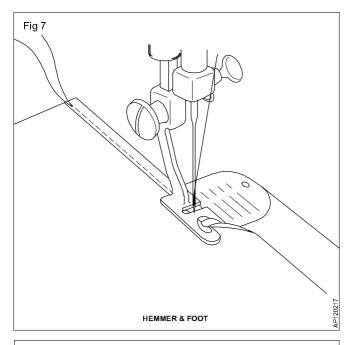


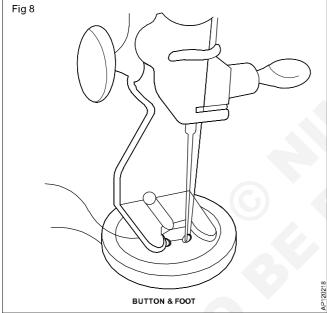
- 10 Machine facsimiles of hand rolled hems are made with the help of hemmer foot. The fabric feeded, is automatically rolled and stitched, which gives a heat rolled hem finishing. (Fig 7)
- 11 The button foot attachment is capable of holding the button in place while the needle stitches from side to side. The stitch width must equal the space between the holes in the button. (Fig 8)
- 12 The buttonhole is used when stitching machine worked buttonholes. It is available both in metal and transparent plastic Guidelines are usually etched into foot to help with stitch placement. (Fig 9)
- 13 The cording foot has large groove underneath to sit over cord. It stitches close to the cord. Another type of foot sews with twin needle on either side of the cord. (Fig 10)

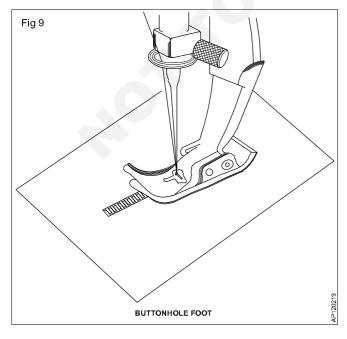
14 Binder and folder attachment

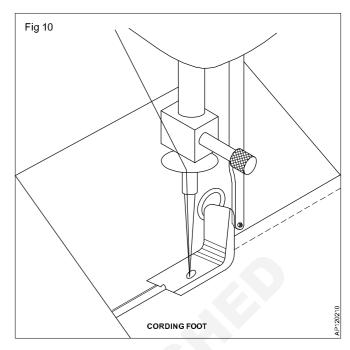
15 Binder and folder type of attachments are used for folding and / or joining while simultaneously sewing.

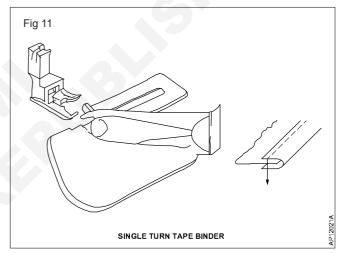
Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.3.18







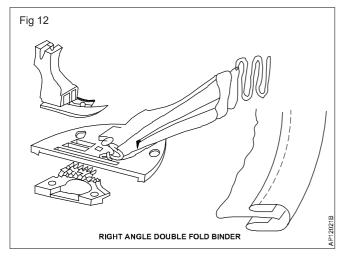


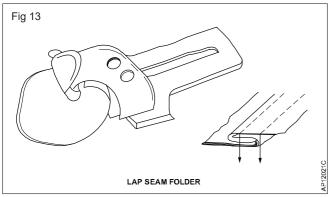


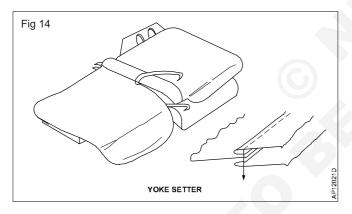
- 16 This type of attachments are mounted at the machine bed and used.
- 17 This attachment is used along with a hinged foot, this folder is used for tapes which have a finished edge.
- 18 The binder is mounted on the throat plate, at right angles to the sewing line. A special feed dong set and foot are parts of the unit which folds in both edges of the tape as it is being bound and sewn.
- 19 This folder is used on two or three needle machines, it folds the edges of the two parts being joined and interleaves them while being sewn.
- 20 Yoke setter is used mainly for shirts, this folder turns in the edges of the two yokes and sandwiches the body section between them.

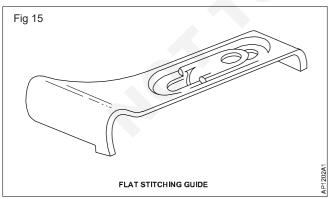
21 Guide Attachment

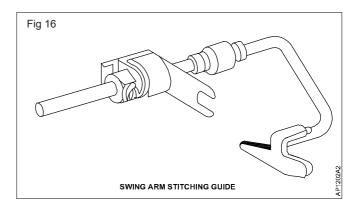
22 The guide and gauge attachments enable the operator to sew or top stitch parts at a consistently accurate width. Like binder and folder attachments, guide attachments are also mounted on the bed plate of the machine and stitched.

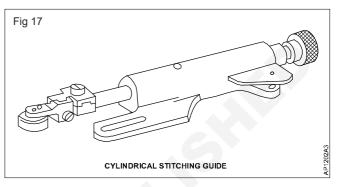


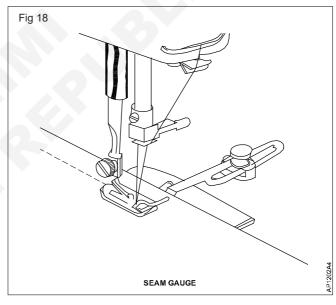












- 23 Flat stitching guide is mounted on the sewing machine bed plate and the raised left end acts as the edge guide.
- 24 Swing arm stitching guide is mounted on the presser foot bar and is available with guide arms to the left or right of the needle. The arm, with the guide edge, can be raised or lowered as required by the stitching.
- 25 The edge guide is a small wheel which enables very sharp contours to be accurately stitched. A spring locking action engages or releases the guide very quickly.
- 26 Seam gauge is attached to the machine bed and then adjusted to be at a specific distance from needle and stitched.

Apparel Exercise 1.3.19

Sewing Technology - Basic Construction

Make samples of darts & pleats

Objectives: At the end of this exercise you shall be able to

- · construct a plain dart
- · construct a contour dart
- · construct a French dart.

Requirements

Tools / Equipments

- Lock stitch sewing machine
- Iron box
- · Hand needle
- Scissors

Materials

- 1 No.

- 1 No.

- 1 No.

- 1 No.

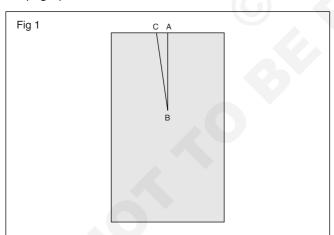
- Long cloth
- · Sewing thread

- 0.15 x 0.75 m
- 1 No.

PROCEDURE

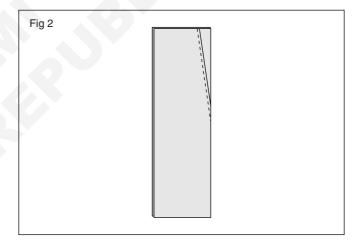
TASK 1: Construct a plain dart (half dart)

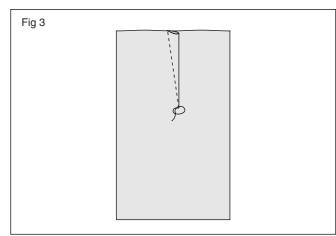
- 1 Take a piece of fabric (25 x 15 cm) for the construction of a plain dart.
- 2 On the wrong side of the fabric mark a line A-B according to the dart length required (10 cm) and mark point C according to half of the dart width (1.5 cm). Join B and C. For marking, use tailor's chalk. (Fig 1)

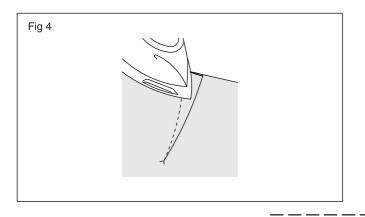


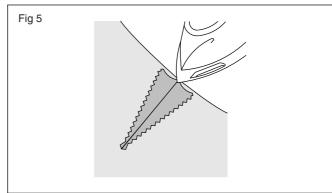
- 3 Fold the fabric on the line A-B with right sides together and baste just beside the line BC. (Fig 2)
- 4 Stitch on the mark with machine. Lock stitch in the beginning. Tie the knot, leaving thread at the end. (Fig 3)
- 5 Trim the thread and press dart. (Fig 4)

If you use thick fabric for the dart, slash the folded portion of the dart leaving 1 cm at the end of the dart and press open. This is called slashed dart. Use pinking shears, if fabric is fraying easily. (Fig 5)



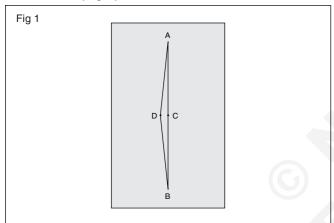




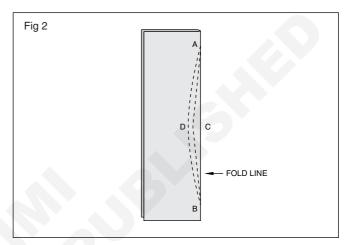


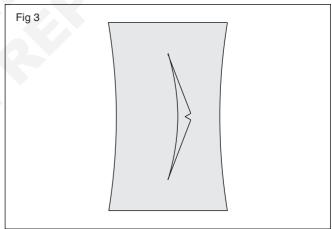
TASK 2: Construct a contour dart (double pointed dart)

1 Take a piece of fabric (25 x 15 cm). On the wrong side of the fabric mark a vertical line A-B (keep same distance from upper and lower edge). Mark according to the dart length required (15 cm) and mark point C at the centre of the line A-B. Take 1.5 cm, i.e. half of the dart width from C and mark point D. Join line A-D and B-D. (Fig 1)



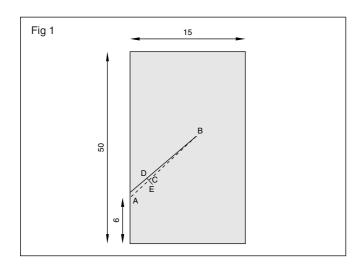
- 2 Fold the fabric on line AB (with right sides together) and pin the dart on the line A-D-B. Baste just inside the line A-D-B and remove the pins. Stitch with machine on the mark, maintaining curved shape at point D. (Fig 2)
- 3 Tie and trim the threads at both ends of the dart.
- 4 Remove basting. Clip the dart within 3 mm from C towards D. (Fig 3)

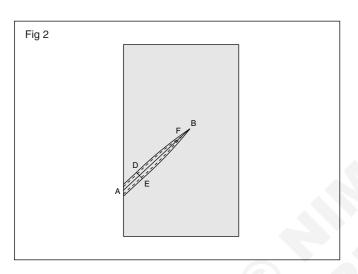


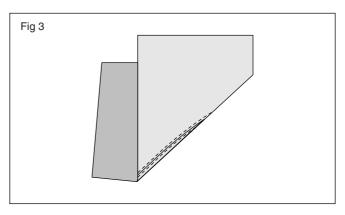


TASK 3: Construct a French dart (curved dart)

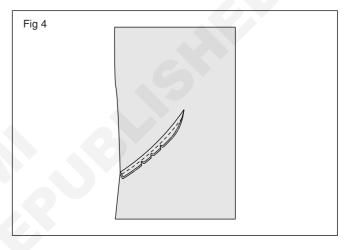
- 1 Take a piece of cloth (25 cm x 15 cm). Mark point A at a distance of 6 cm from the lower corner on 25 cm long side. Draw a diagonal line of 12 cm dart length in the direction of opposite corner. Mark B at the end of the line.
- 2 At a distance of 4 cm from A mark C. Square up on either side on point C and mark D and E at a distance of 2 cm, i.e. Half of the dart width. (Fig 1)
- 3 Draw the 2 dart lines beside the centre line: take a distance of 2 cm and draw from edge of cloth to D and E. Then taper the line up to point B where the lines meet.
- 4 Between dart line and centre line make stay stitches by small running stitches 1 cm away from the dart line. Finish it in point F, i.e. 1.5 cm away from point B. (Fig 2)
- 5 Slash the centre line of dart from A to F.
- 6 Fold the fabric with right sides together, matching the raw edges neatly. Pin and baste slightly away from the stitching line.
- 7 Stitch with machine on the shaped dart line. Knot the thread on tapered end and trim off the threads. (Fig 3)







8 Clip the seam allowance close to stay stitch, unfold the cloth and stretch out the raw edges. Press the dart flat, keeping the raw edges of the seam allowance downwards. (Fig 4)



Make samples of pleats

Objectives: At the end of this exercise you shall be able to

- · construct and stitch side pleats
- · construct and stitch inverted pleats
- · construct and stitch box pleats
- construct and stitch pleats with separate underlay.

TASK 1: To construct and stitch side pleats (knife pleats)

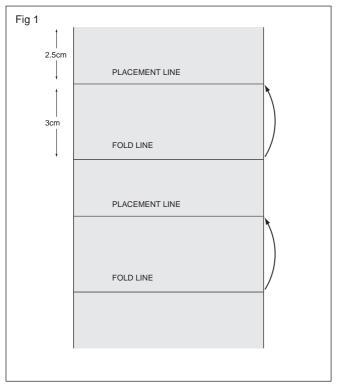
- 1 Mark and cut the given material in 2 pieces of 0.20 x 0.45 m, 2 pieces of 0.20 x 0.90 m.
- 2 Take a piece of cloth size 0.20 x 0.45 m.
- 3 Marking will be done on wrong side with tailor's chalk.
- 4 Mark fold lines and placement lines as per figure 1 on full width of sample. Width of the pleat is 1.5 cm and distance between two pleats is 2.5 cm. (Fig 1)
- 5 Transfer all markings to the right side using tracing wheel.

Transfering of marks can also be done by cutting notches. Place them at the edge of fabric, so that they will be invisible in the pleats.

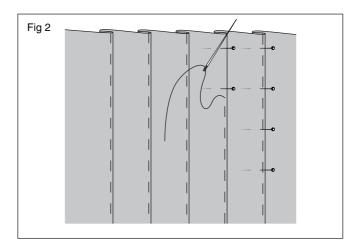
6 Work on right side now. Fold the fabric along the foldline and bring it to its placement line. Pin pleats through all layers. Baste pleats close to the fold line through all thickness and remove the pins. (Fig 2)

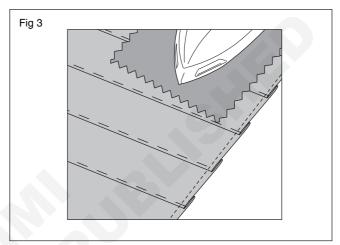
If the pleats are very long, basting is done 5-8 cm on top and a horizontal baste line is given on the bottom.

- 7 Make a row of machine stitches at 1 cm distance from the edge, right angled to the pleats. Lock the stitches at the starting and at the end.
- 8 Place the cloth right side up on the iron board and press the pleats.



9 Use a damp muslin cloth and place it upon the pleats before you press. Press the iron only, don't move it forth and back, since this will damage the folds. Press again without cloth and do not move the fabric until it is quite dry. Repeat the process on the wrong side. (Fig 3)



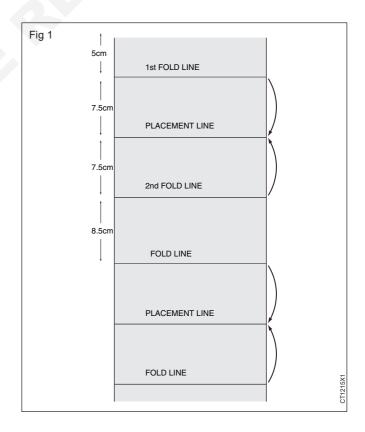


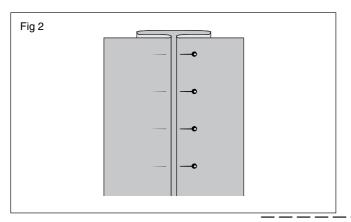
TASK 2: Construct and stitch inverted pleats

- 1 Take a piece of cloth size 0.20 x 0.90 m. Mark on wrong side. Mark fold lines and placement lines as per figure 1. Width of the pleat will be 7.5 cm, distance between two pleats is 1 cm. from wrong side. (Fig 1)
- 2 Transfer all marks to right side using tracing wheel or notches.
- 3 Work on right side now. Fold and bring 1st and 2nd fold lines from right and left to placement line. Pin pleats (each pin fixes both fold lines) through all thickness. (Fig 2)

Take care that both fold lines meet on placement line.

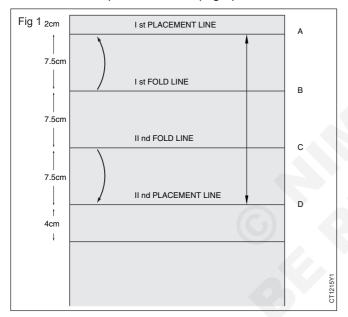
- 5 Repeat the process for all pleats.
- 6 Pin and baste pleats close to fold lines through all layers. Make a row of machine stitches at 1 cm distance from edge right angled to the pleats. Remove pins.
- 7 Press the pleats with a damp cloth.





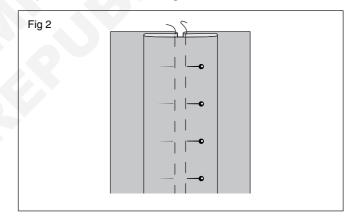
TASK 3: Construct and stitch box pleats

- 1 Take a piece of cloth size 0.20 x 0.90 m.
- 2 Mark fold lines and placement lines from wrong side as per figure 1. Width of pleat is 7.5 cm, distance between two pleats is 4 cm. (Fig 1)



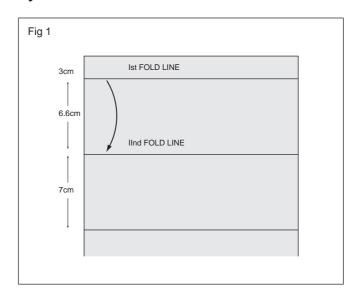
3 Transfer all marks to right side using tracing wheel.

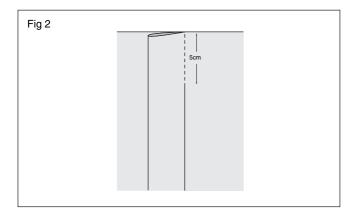
- 4 Work on right side now. Fold 1st fold line 'B' and bring it to the 1st placement line 'A' and fold 2nd fold line 'C' and bring it to the 2nd placement line 'D'. Continue for the pleats.
- 5 Pin the pleats through all layers. Fix the pleats with two rows of basting 2-3 mm away from centre line. (Fig 2)
- 6 Remove pins and press the pleats.
- 7 Make a seam 1 cm from the raw edge to hold the pleats. Remove basting.

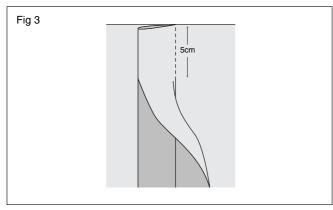


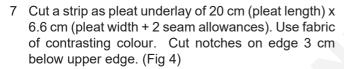
TASK 4: Construct and stitch pleats with separate underlay

- 1 Take a piece of cloth size 0.20 x 0.45 m and another piece of poplin 0.20 x 0.20 m of contrasting colour.
- 2 Mark on wrong side of the bigger piece.
- 3 Mark fold lines and placement lines as per figure 1. Width of the pleat is 5 cm, seam allowance for pleat extension is 0.8 cm, distance between two pleats is 2 cm. (Fig 1)
- 4 Transfer the marks on right side using tracing wheel. Place one fold line over the other from right side and baste along fold lines from the wrong side.
- 5 Stitch 5 cm long stitch line from upper edge. (Fig 2)
- 6 Mark on fold 3 cm from upper edge. Then cut along the fold. Press open both parts of pleat (pleat extension). (Fig 3)





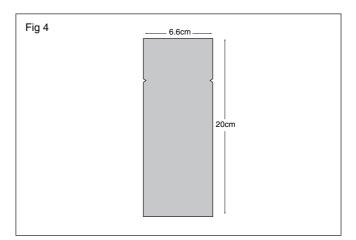


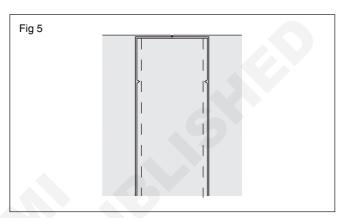


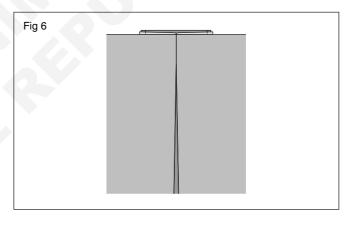
- 8 With right sides together, place pleat underlay over the pleat extension, match markings, baste along each side. (Fig 5)
- 9 Stitch each side of the pleat underlay to pleat extension leaving 0.75 cm from the raw edge. (Fig 6)

Take care that the main material will not be stitched.

10 Remove basting and stitch with machine 1 cm from upper edge. Press.







Apparel Exercise 1.3.20

Sewing Technology - Basic Construction

Making sample of tucks, gathers, shirrs & frills

Objective: At the end of this exercise you shall be able to

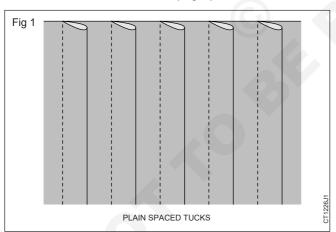
· make samples of tucks.

Requirements **Tools / Equipments** Single needle lock stitch machine - 1 No. Machine Needle - 14No - 1 No. Zipper foot - 1 No. Bobbin and case - 1 No. Iron box - 1 No. **Materials** Hand needle - 1 No. Scissor - 8" - 1 No. Long cloth/ Poplin - 1.20 x 0.90 m Scale - 12" Cord - 0.75 cm - 1 No. Sewing thread Measuring Tape - 1 No. - 1 No.

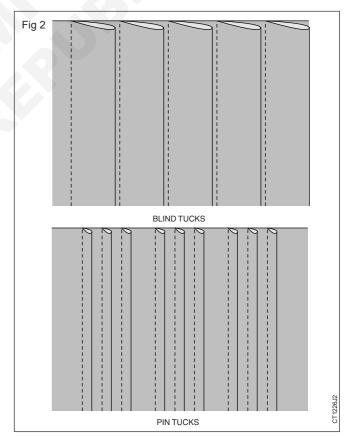
PROCEDURE

TASK 1: Make samples of tucks

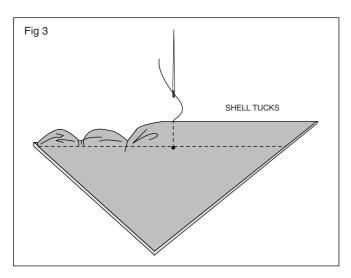
1 Plain spaced tucks: A tuck is a stitched fold of fabric on right side used mostly for decorative purpose. Take a piece of cloth (15 x 20 cm) and mark fold lines for spaced tucks at a distance of 4 cm from edge. Fold 1st tuck on foldline exactly on the grain and stitch at a distance of 0 - 1 cm. (Fig 1)



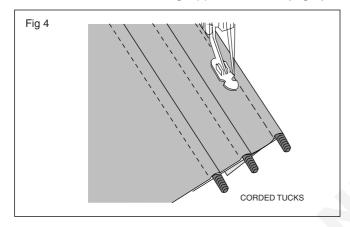
- 2 Stitch and press the tucks all in one direction. Repeat for other types of tucks. Tucks that meet are called blind tucks. A very narrow tuck is a pin tuck. (Fig 2)
- 3 **Shell tucks:** Take a sample piece of 15 x 15 cm. Mark a diagonal line on center. Then set a parallel line on each side at a distance of 5 cm. Fold on the marks to prepare three plain tucks of 1.5 cm.
- 4 Set marks on the seam lines of tucks at a distance of 2.5 cm. Insert needle with double thread on first mark and set running stitches through both layers up to the fold line. Pull (draw) the thread to gather the fabric on the mark, then tack it in place, i.e. on seamline.



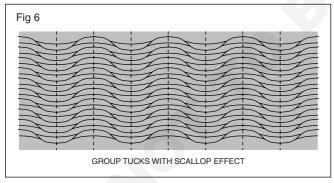
- 5 Guide needle inside the layers and bring it out on next mark. Lock the thread with a back stitch on mark. Repeat process as described. (Fig 3)
- 6 **Corded tucks:** Take a piece of cloth (15 x 20 cm). Mark fold lines lengthwise at a distance of 4 cm, starting from left edge. Fold the fabric on first line and place cord in between the fold.



7 Stitch close to cord using zipper cord foot. (Fig 4)

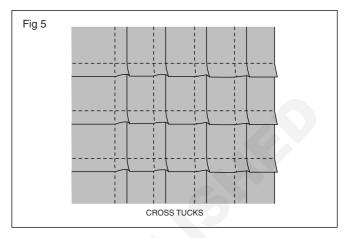


8 **Cross tucks:** Take a piece of cloth (15 x 15 cm). To prepare cross tucks stitch pin tucks or spaced tucks lengthwise and press them in one direction. Then set and stitch tucks in widthwise direction (right angled to the first ones). (Fig 5)



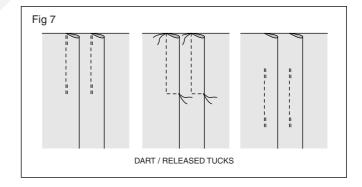
Group tucking with scallop effect: Take piece of cloth (15 x 30). Stitch blind tucks along widthwise grain and press in one direction.

- 10 Draw lines with pencil along lengthwise grain at a distance of 2.5 cm from each other.
- 11 Stitch along 1st marked line (across the tuck) in the direction tucks were pressed.
- 12 Start from opposite side and stitch along 2nd marking reversing the direction of tucks.
- 13 Stitch along remaining marked lines, reversing the direction of tucks with each stitch line. (Fig 6)



- 14 **Dart/released tucks:** Take a piece of cloth (15 x 20 cm).
- 15 Mark lines for spaced tucks.
- 16 1Stitch spaced tucks only upto 4 cm or desired length and secure the thread ends by back stitch or by tying the threads at the edge of tuck.

Sometimes stitching is done in the center of piece only to release fullness from both the ends. (Fig 7)



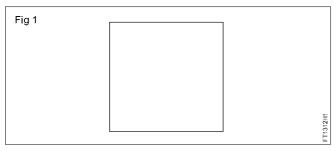
Make samples of gathers

Objective: At the end of this exercise you shall be able to

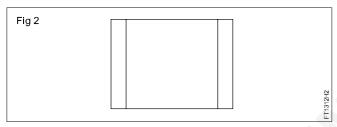
· make samples of different types of gathers.

TASK 1: Prepare gathers by hand

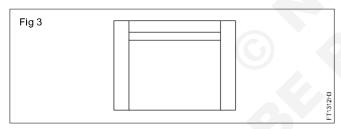
1 Cut one cotton fabric piece of size $10\text{cm} \times 20\text{cm}$ (Fig 1)



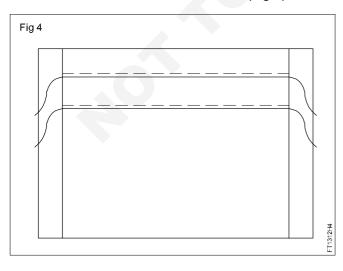
2 Mark a line with distance of 1cm on both the edges of the fabric vertically. (Fig 2)



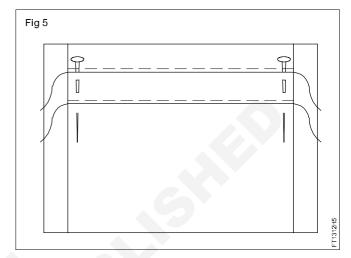
3 Mark two horizontal lines with a distance of 1cm from one marked line to the other marked line. (Fig 3)

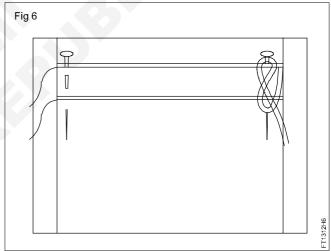


4 Take hand needle and thread don't knot the thread make running stitches. On the lines marked using the threads loose on both the sides. (Fig 4)

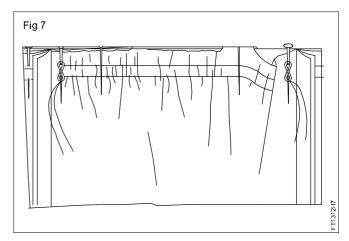


5 Pin the stitched edge with the help of pins and twist the end of the loose thread around the pins. (Figs 5 & 6)





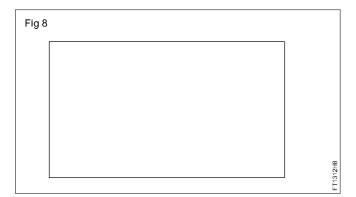
- 6 Fabric is now ready to make the gathers.
- 7 Gently pull on the threads with the hand. So that fabric along the thread creates uniform gathers. (Fig 7)



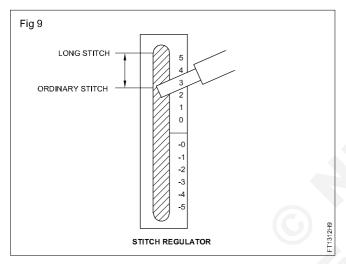
Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.3.20

TASK 2: Prepare gathers by machine

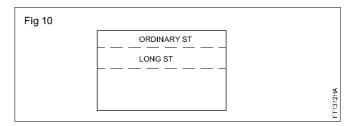
- 1 Cut one cotton fabric piece of size $10 \text{cm} \times 20 \text{cm}$.
- 2 Follow the steps of 2 & 3 of (Task 1). (Fig 8)

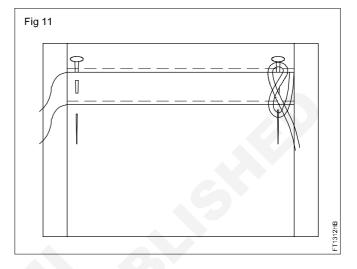


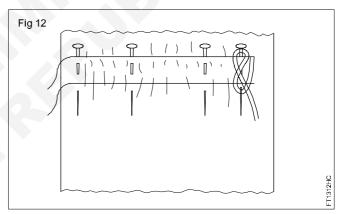
3 Adjust the stitches regulator to along stitch from a lower number to a higher number. (Fig 9)

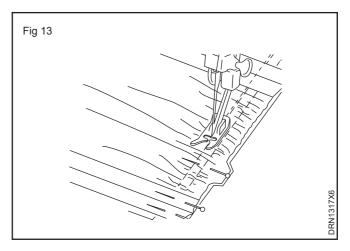


- 4 Now work two parallel rows of long stitches on the fabric leaving long threads at both the ends. (Fig 10)
- 5 Pin & twist the bobbin thread around the pins at an edge and pin the stitches at another edge. (Fig 11)
- 6 Fabric is now ready to gather.
- 7 Gently pull on the bobbin threads from the other end & the gather are created on the fabric. (Fig 12)
- 8 Adjust the stitch regulator to the normal stitch length.
- 9 Adjust gathers uniformly and pin at frequent intervals to hold folds in place and give a fern machine stitch to hold the gather permanently. (Fig 13)
- 10 Gather are ready.



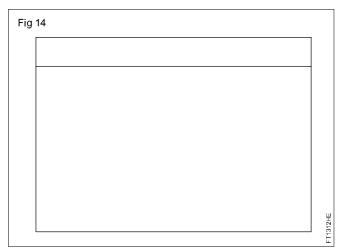




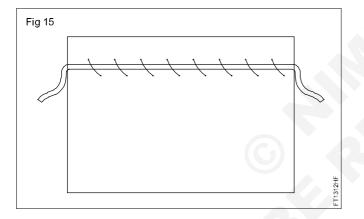


TASK 3: Prepare corded gathers

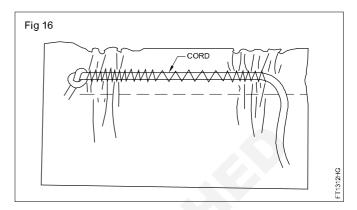
- 1 Cut one cotton fabric piece of size $10cm \times 20cm$.
- 2 Mark a line with distance of 2cm from the upper edge horizontally. (Fig 14)



3 Take strong cord thread and place it on the line drawn using the diagonal bound stitch for the code. (Fig 15)



- 4 Make widest zig zag stitch using a zig zag machine over the code.
- 5 Knot the thread at one end of the stitch gently pull the cord from the other end with intervals and form gather. (Fig 16)



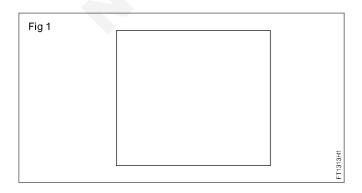
Make samples of shirrs

Objective: At the end of this exercise you shall be able to

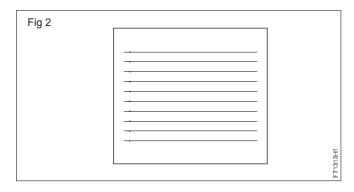
· make samples of shirrs.

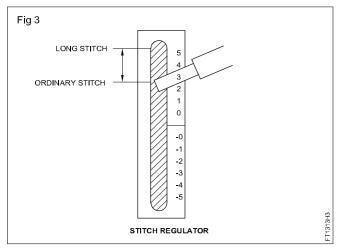
TASK 1: Prepare shirrs

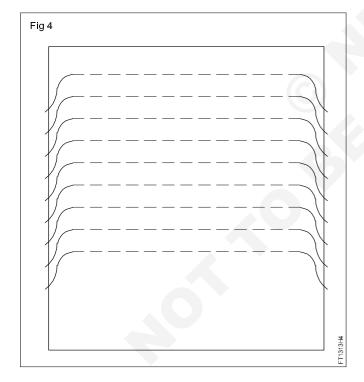
1 Cut one cotton fabric piece of size 15cm \times 20cm (Fig 1)



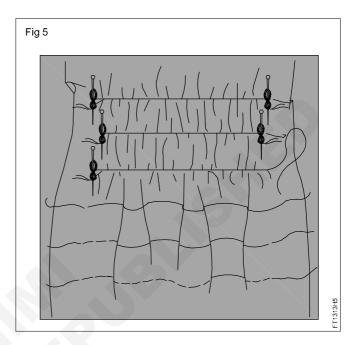
- 2 Mark lines of 2cm from the top edge. Continues marking 10 lines of 1cm distance in between each line. (Follow the marking procedures of task 1 of 3.11 from 2 to 3) (Fig 2)
- 3 Adjust the stitch regulator to a long stitch from a lower number to a higher number. (Fig 3)
- 4 Start giving long stitches on the marked lines leaving long threads on both ends. (Fig 4)
- 5 Starting pining each and every line and twist one end of bobbin thread around the line.
- 6 Pins must be place in the pattern shown in the picture Fig 5 & start pulling the stitches one by one at a time.

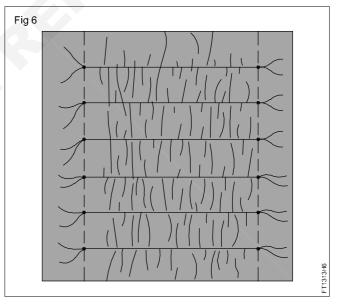






- 7 After pulling the thread twist the thread around the pin again at the end as shown in (Fig 5).
- 8 Adjust the stitches from long stitches to normal stiches give one from stitch at both the end of the stitch where the threads end with pin.
- 9 Remove the pins and make a knot with the threads at the end as shown in (Fig 6)
- 10 Shirring in ready.





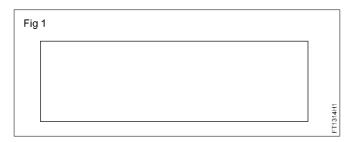
Make samples of frills

Objective: At the end of this exercise you shall be able to

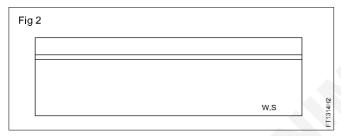
· make samples of frills and ruffles.

TASK 1: Prepare straight frills

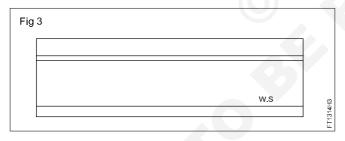
1 Cut one cotton fabric piece of size $10\text{cm} \times 20\text{cm}$ (Fig 1)



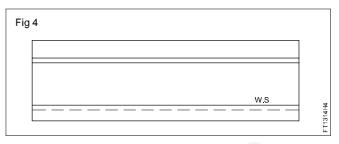
2 Mark a line with distance of 1cm from the upper edge and another line at 5cm below the marked line horizontally on the wrong side. (Fig 2)



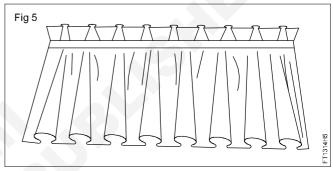
3 Mark a line with distance of 1.5cm from the bottom edge horizontally. (Fig 3)



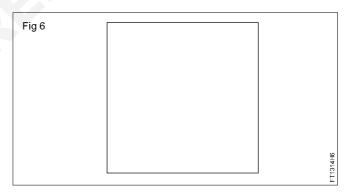
4 Turn the bottom edge once to 5cm and again to 1cm towards the wrong side of the fabric and give a machine stitch on the fold. (Fig 4)



5 Give long stitches on the two marked lines follow the procedure of Task 2 of ex 3.11 from 3 to 9. (Fig 5)



6 A fullness is produced by gathering straight ruffle. (Fig 6)



Apparel Exercise 1.3.21

Sewing Technology - Basic Construction

Practice of hand stitches & making samples of them

Objectives: At the end of this exercise you shall be able to

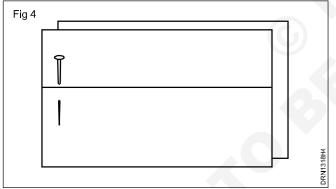
- · stitch even basting by hand
- · stitch uneven basting by hand
- stitch diagonal basting by hand
- · stitch slip basting by hand
- · stitch tailor's tacks by hand.

Requirements			
Tools/Instruments			
Scale - 12"Pencil HBScissor - 8"	- 1 No. - 1 No. - 1 No.	 Cotton fabric 10cm × 6cm Thread Needle Measuring tape 	-1 No. -1 No. -1 No. -1 No.

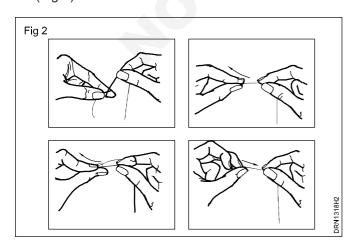
PROCEDURE

TASK 1: Stitch even basting

- 1 Cut two cotton fabric pieces of size (10cm \times 6cm) (Fig 1)
- 2 Cut (50 cm) thread from the cone.

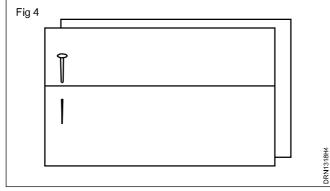


- 3 Make a knot at one end of the thread. (Fig 2)
- 4 Fix one fabric over the other fabric using ball pin. (Fig 3)

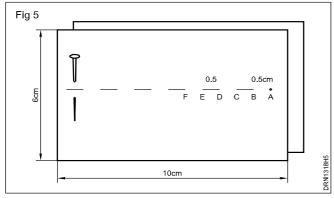


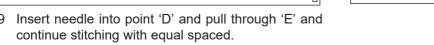


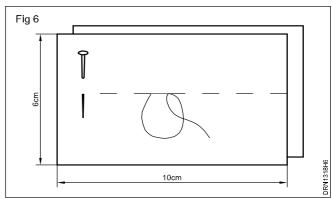
5 Draw a horizontal line at the center of the fabric. (Fig 4)



- 6 Mark equal stitch length with distance of (0.5cm) on the fabric. (Fig 5)
- 7 Bring the needle from the bottom of the fabric at point 'A' and pull the thread fully to the top layer.
- 8 Insert the needle at point 'B' and bring the needle through point 'C' from the bottom of the fabric.

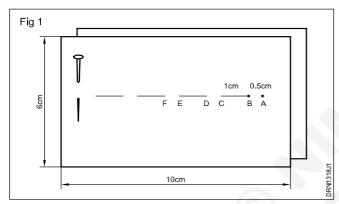




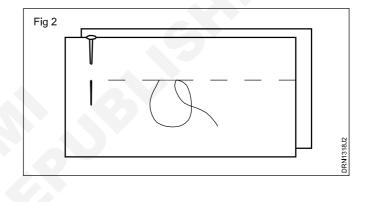


TASK 2: Stitch uneven basting

- 1 Follow the step 1 to 15 of task 1.
- 2 Mark points of 1cm and 0.5cm alternatively by naming A,B,C,D,E. (Fig 1)

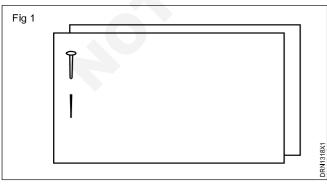


3 Follow the stitching procedure from point 7th 8th, 9th of TASK - 1 (Fig 2).



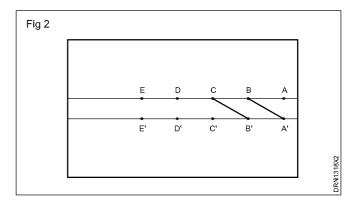
TASK 3: Stitch diagonal basting

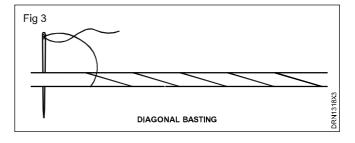
- 1 Cut two cotton fabric pieces of size $10cm \times 6cm$.
- 2 Fix one fabric over the other fabric using ball pin (Fig 1).
- 3 Draw 2 horizontal lines at the centre of the fabric with a distance of 1cm.
- 4 Mark points on the lines at equal distance on both the lines naming as A,B,C,D and A', B', C',D',...



- 5 Bring the threaded needle from point 'A" from the base of the fabric.
- 6 Insert the needle from 'B' to 'B' and pull the thread, diagonal stitch is formed (Fig 2).

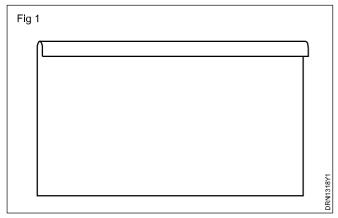
7 Repeat the same procedure along the points and finish the diagonal stitch with the knot at the base of the fabric (Fig 3).



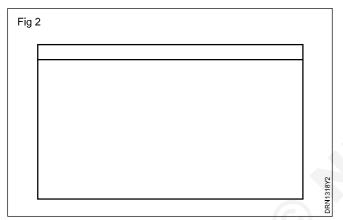


TASK 4: Slip basting

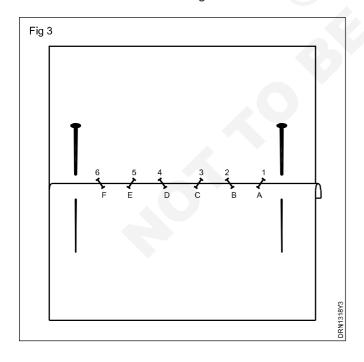
1 Cut two cotton fabric pieces of $10cm \times 6cm$.



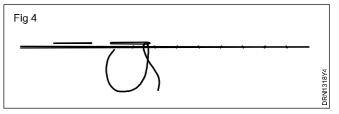
2 Take one piece and fold the edge of the fabric to 1.5cm.



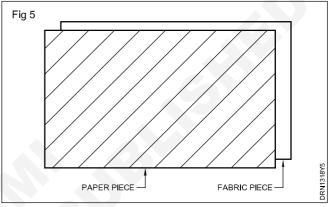
3 Mark 1.5cm at the other edge of the fabric.



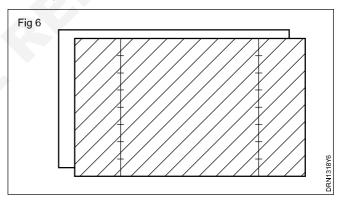
4 Place the folded fabric over the other flat fabric on the 1.5cm mark from the edge and pin on both the edges.



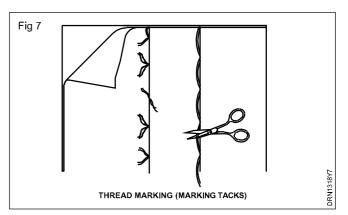
5 Mark slant small line on both the fabrics together naming 1,2,3,4 on top fabric and A,B,C,D on the base of the fabric.



6 Bring the needle out at the point 'A' from the base of the pinned fabric.



7 Insert the needle backside through 1' and bring it out at '2', again insert the needle.



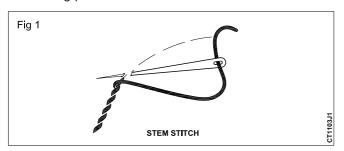
Decorative stitches by hand

Objective: At the end of this exercise you shall be able to

· make various decorative stitches by hand.

TASK 1: Make various decorative stitches by hand

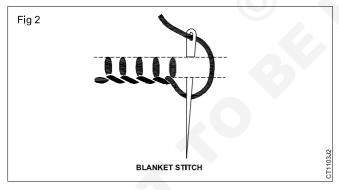
- 1 **Prepare the following stitches:** Stem stitch, blanket stitch, herringbone stitch, fishbone stitch, straight feather stitch, double feather stitch, chain stitch, Lazydaisy stitch, closed blanket stitch, cross stitch. Leave 5 cm on the top and bottom of the material.
- 2 **Stem stitch** (Fig 1): Hold the needle in right hand and insert the needle from the underside of fabric into the starting point at left side.



3 Working from left to right take regular slightly slanting stitches along the line of design. Continue in this manner, keeping all the stitches even.

For the stem stitch, the thread is placed below the needle.

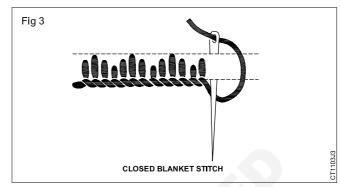
4 **Blanket stitch** (Fig 2): Mark horizontal lines at equal distance of 1 cm.



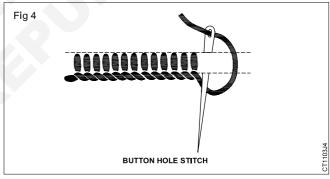
Working from left to right, bring needle out from wrong side on lower line. Then insert the needle on upper line and bring it out again on lower line. Hold thread down and take a stitch, pointing needle towards yourself with thread under the needle. Take needle through the loop and pull the thread forming a blanket stitch. Repeat the same stitch at a distance of 1 mm.

The length and distance of the stitches should be grouped or spaced, but keep the stitches even.

6 Closed blanket stitch (Fig 3): Blanket stitch is formed same as the buttonhole stitch (Ref.Ex.1). It is also used for different shapes. Here it's a V-shape.



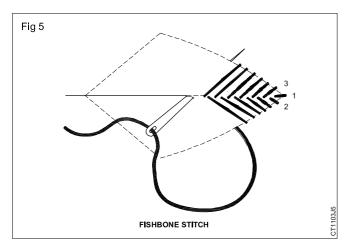
- 7 Draw two horizontal lines at a distance of approximately 0.5 cm. The blanket stitches close to each other. Insert needle on different levels so that the upper line is formed as a V-Shape.
- 8 **Buttonhole stitch** (Fig 4): Mark two horizontal lines at an equal distance of 0.5 cm. Work blanket stitches as close as possible to each other and repeat. Stitch is performed same as blanket stitch but stitches are placed very closely.

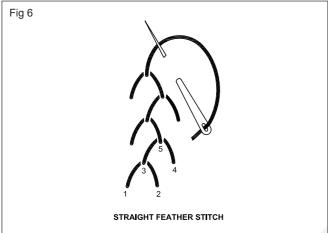


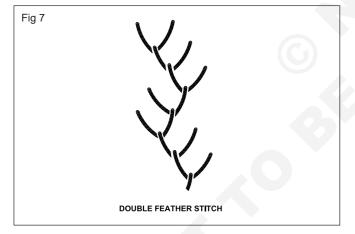
9 **Fishbone stitch** (Fig 5): Trace a design (Ref.SS2) and fill the shape with fish bone stitch. Bring the thread through at 1 and make a small straight stitch along the centre line of the shape. Bring the thread through again at 2 and make a sloping stitch across the central line at the base of the first stitch. Bring the thread through at 3 and make a similar sloping stitch to overlap the previous stitch. Continue working alternately.

Note: Stitches should be very close to each other so that the fabric should not be shown.

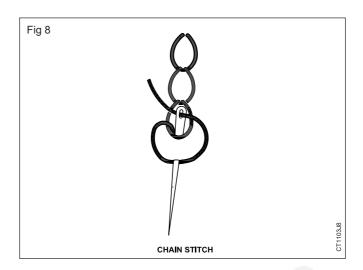
10 **Straight feather stitch** (Fig 6): Bring the needle out at 1. Hold the thread with left thumb, insert the needle at 2, i.e. a little to the right on the same level as 1, and take a small stitch to the centre (3) keeping the thread under the needle point. Insert the needle a little to the right (4), again hold the thread with left thumb. Bring the needle out at 5 thread under the needle point. Continue.

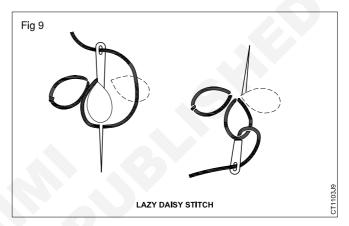


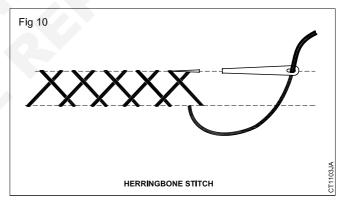




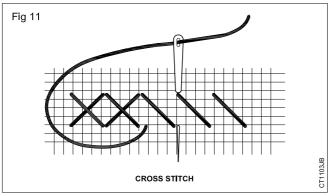
- 11 **Double feather stitch** (Fig 7): Follow the same method as with straight feather stitch but take two stitches to the right and left alternately.
- 12 **Chain stitch** (Fig 8): Bring out the needle from the underside of cloth, work from left to right, so you can fix loops with the left hand thumb. Form a loop in front of the needle, insert the needle a second time at the starting, bring out the needle at a short distance keeping thread under the needle point and pull the thread. Again form a loop, insert the needle from where it emerged last and continue as described.
- 13 **Lazy-daisy stitch** (Fig 9): Trace a design. The new stitches will work in the same way as the chain stitch but lock the end of the loop at its centre with a short stitch.



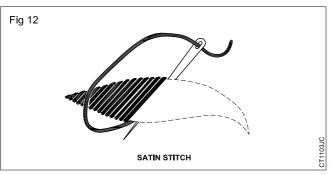




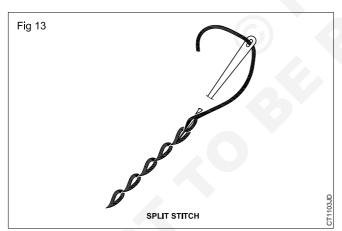
- 14 **Herringbone stitch** (Fig 10): Mark 2 parallel lines of approximately 0.5 cm distance. Bring the needle out on the lower line at the left side and insert on the upper line a little to the right. Take a small stitch to left with the thread below the needle. Next insert the needle on the lower line a little to the right and take small stitch to the left with the thread above the needle.
- 15 **Cross stitch** (Fig 11): Draw two lines at 0.5 cm distance to each other. Stitch a diagonal stitch between the two lines. Insert the needle on the lower line slant to the right upper line (45°), insert the needle and come out straightly on the lower line. Finish the row.
- 16 Turn the direction and form diagonal stitches while inserting the needle at the same points like the other stitches have been formed with. Cross the previous ones, stitch other rows at distance of 2 cm from each other.



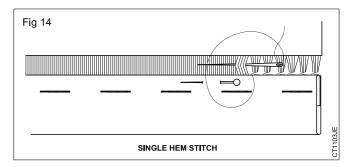
17 **Satin stitch** (Fig 12): Take 2 or 3 ply thread and stitch on the on line of the design with small running stitches. Then fill the design with long loose stitches covering the trimming stitches.



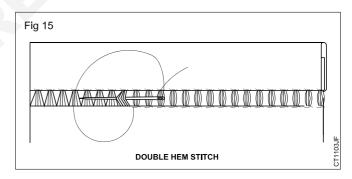
18 **Split stitch** (Fig 13): The split stitch is very similar to the Chain stitch. You start in the same manner. Then don't form a loop but pass the needle through the thread. Take care to get the centre of the thread.



19 **Single hem stitch** (Fig 14): Draw six yarns. Start at a distance of 2.5 cm from each side of the fabric.



- 20 Fold a hem at each side by folding 0.5 cm first and then 2 cm for the second fold up to the edge of the drawn yarns.
- 21 Fix the hem with pins first then with even basting.
- 22 Fix the thread at the right corners of one hem. Pick up 3 or 4 of the remaining yarns in the drawn thread line.
- 23 Turn the thread around the needle and tighten them. Make a diagonal stitch of 1 mm distance and insert the needle into the hem edge.
- 24 Repeat the same process and finish the whole line.
- 25 **Double hem stitch** (Fig 15): Finish the two opposite sides of the cloth by double hem stitch. When one of the edge has been finished as described above, turn the work and make duplicate stitches along the opposite edge of the drawn threads. Take care to retain thread groups that were established on the front edge.



Apparel Exercise 1.3.22

Sewing Technology - Basic Construction

Making samples of hem

Objectives: At the end of this exercise you shall be able to

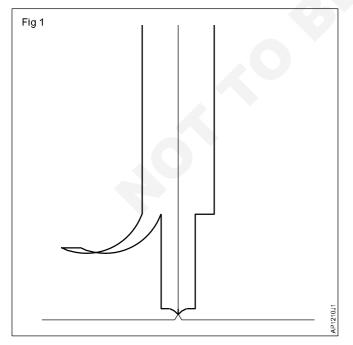
- · make circular hem
- · make edge stitched hem
- · make double stitched hem
- · make faced hem
- · make band hem.

Requirements				
	Materials			
machine - 1 No.	Long cloth or poplin	- 1 m		
	Sewing thread	- 1 m		
- 1 No.				
- 1 No.				
- 1 Box				
	- 1 No.	machine - 1 No. • Long cloth or poplin • Sewing thread - 1 No 1 No.		

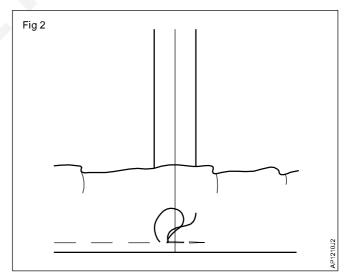
PROCEDURE

TASK 1: Make circular hem

- 1 Cut 0.15 cm X 0.15 cm of poplin material and joined with the help of plain seam. Measure and mark the hem portion.
- 2 Before turning up the hem, reduce bulk within the hem allowance by trimming seam allowances to half original widths. This will make the hem smoother at the seam lines (Fig. 1)

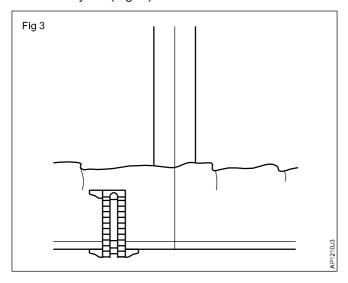


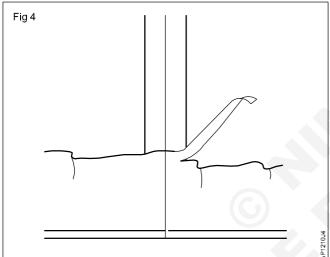
3 With wrong side facing you, fold hem on the marked line, placing pins at right angles to the fold about every 5 cm (If a mark should be greatly out of line with the others, ignore it, and align the fold with the marks on either side) Try on garment; make adjustments if necessary. After removing the garment, tack close to the folded edge. (Fig 2)



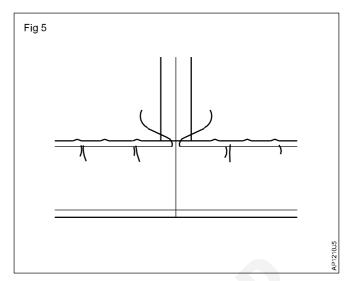
- 4 Make the hem allowance an even width all around by measuring the desired distance from the fold then marking with chalk. The Ironing board is an ideal place to work as it lets you deal with a small part of the hem at a time. A sewing gauge is the easiest measuring device to use. (Fig. 3)
- 5 Train excess hem allowance along the marks. At this stage you can see whether or not the hem edge lies smoothly against the garment. If there are ripples,

the fullness should be controlled by easing, a step that is usually necessary with gored skirts and other flared styles. (Fig. 4)

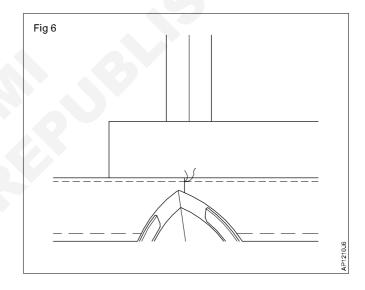




6 Ease the hem by machine-tacking 6mm from the edge, beginning and ending stitches at each seam. Draw up fabric on ease stitching until each section of the hem edge corresponds with that part of garment. Take care not to draw the edge in too much, or it, will pull against the garment when finished. (Fig. 5)

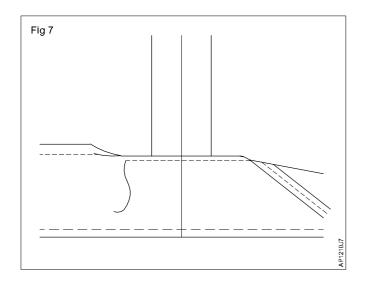


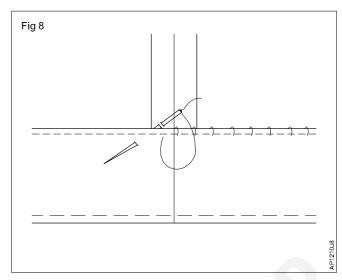
7 Press the hem lightly to shrink out excess fallness, keeping the hem allowance grain lines aligned with those of the garment. Heavy paper inserted between hem and garment will present the hem edge from leaving a ridge (Fig. 6)



TASK 2: Make edge stitched hem

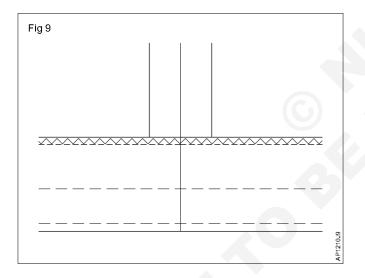
- 1 Cut 0.15 cm X 0.15 cm of poplin material and joined with the help of plain seam. Measure and mark the hem portion.
- 2 Turn the hem edge under 6mm and press (If using an ease stitch, turn the edge along the stitching line) Top stitch 3mm from fold. (Fig 7)
- 3 Secure hem with vertical hemming stitches(show) or use slip hemming, spacing the stitches 1 cm apart. Do not pull thread taut. (Fig. 8)



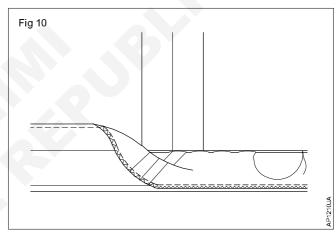


TASK 3: Make double stitched hem

- 1 Cut 0.15 cm X 0.15 cm of poplin material and joined with the help of plain seam. Measure and mark the hem portion.
- 2 After finishing the hem, place a row of tacking stitches half way between the edge the fold at the hemline. (Fig. 9)

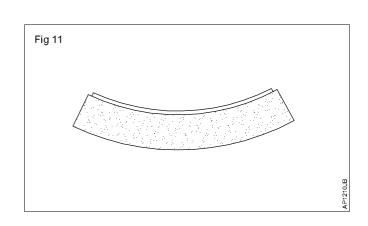


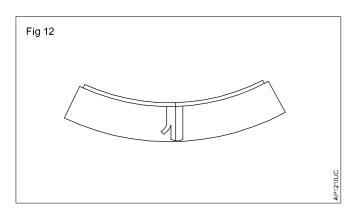
3 Turn the upper half of the hem up again, and secure the edge with a blind herring bone stitch. Do not pull the thread too tight. (Fig 10)

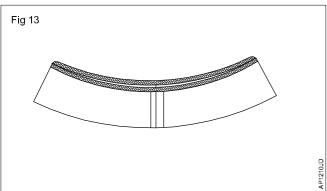


TASK 4: Make faced hem

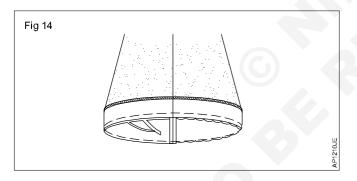
- 1 Cut 0.15 cm X 0.15 cm of poplin material and joined with the help of plain seam. Measure and mark the hem portion.
- 2 Cut facings to fit the hem if there are no patterns make your own tracing the hemline from garment pieces cut them 6 cm wide (Fig 11)
- 3 Join the facing sections and press the seams open. Trim the seam allowance to half their original width (Fig 12)
- 4 Finish the inner facing edge (the smaller curve), using one of the methods for an uncovered hem edge (Fig 13)



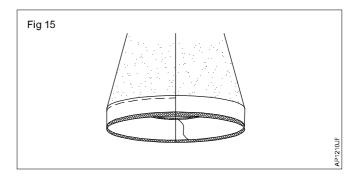




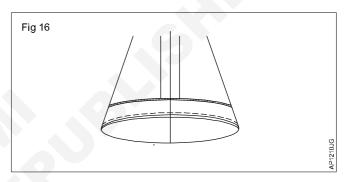
5 Before attaching facing, mark hemline and trim allowance to 1.5 cm. Right sides together sew facing to garment with 1 cm seam. Trim grade and notch seam allowance (Fig 14)



6 Press the seams open, then toward the facing. With the facing pulled out flat stitch the facing close to the seam edge, through all of the seam allowances. (Fig 15)



7 Turn facing inside the garment and press the hemline (Seam should be 3 mm from fold). Secure free edge of facing to garment with an appropriate hem stitch (Fig 16)



TASK 5: Mited hem

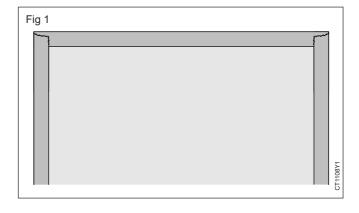
1 Cut the other piece of fabric (cambric cloth) of 45 x 45 cm in 4 equal pieces of 22.5 x 22.5 cm.

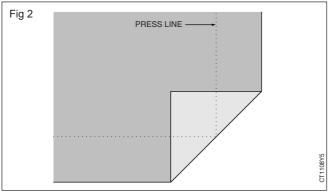
2 Overlapping corner: Take one of these pieces and fold widthwise edges (along the weft yarn) first by 0.5 cm, then by 1 cm. Hold the folds in shape with pressing. Then fold lengthwise edges (along the warp thread) in the same manner, so that the new folds will overlap the first ones at corners. Fix the corner and edges with whip stitches. (Fig 1)

3 Mitring corners: Mitring is the diagonal joining of two edges at the corner; the joint may be stitched or folded.

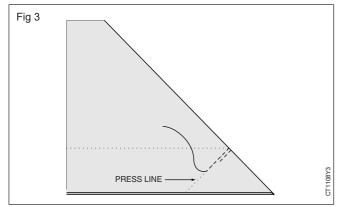
4 Mitring on self-turned-up corners: Take the second sample piece 22.5 x 22.5 cm and finish the corners as

follows: Fold on seamlines of widthwise and lengthwise edges, press. Open out edges, fold the corner up, aligning creased lines. Press again. (Fig 2)

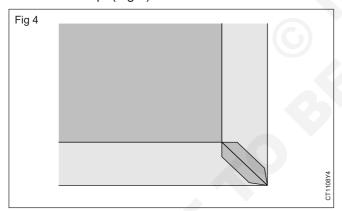




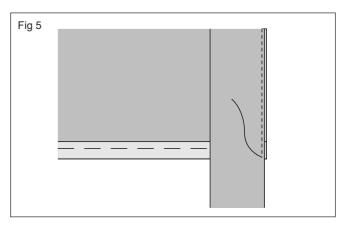
5 Open out the corner. Fold the garment diagonally (on bias) with right sides together and raw edges matching. Stitch on the diagonal press line. (Fig 3)

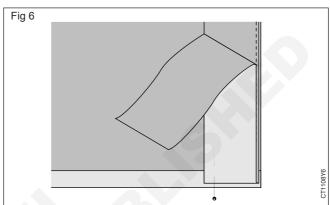


6 Trim the corner, leaving 5 mm seam allowance. Trim the corners of seam allowance separately so that they don't overlap. (Fig 4)

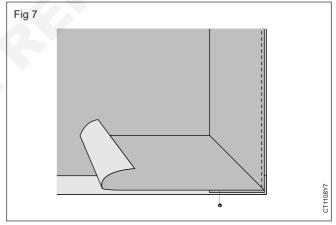


- 7 Press the seam allowance open and turn right side corner out. Finish for the remaining corners.
- **8 Mitring with flat tape/ribbon:** Take a sample piece of 22.5 x 22.5 cm. Fold the raw edges on all sides by 6 mm to the right side. Pin and baste. Baste the outer edge of a ready-made tape along one side of the sample piece.
- 9 Ensure that both outer edges are aligned together so that wrong side of the fold of the sample piece is not visible. Stitch close to the edge; stop slightly above the corner. (Fig 5)
- 10 Pull the thread to the wrong side and knot. Fold the tape straight back on itself so that the fold of the tape aligns with lower edge of the sample piece. Pin at the fold to hold in place. (Fig 6)

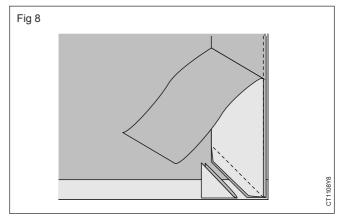




11 Fold the tape down and make a diagonal fold at corners aligning the outer edge of the tape with lower edge of the sample piece. Press on diagonal fold. (Fig 7)

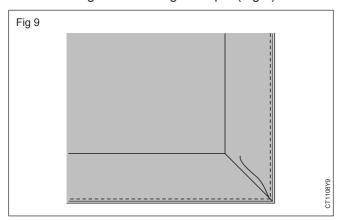


12 Lift the tape at corner and stitch on diagonal crease through all thickness. Trim the corner to reduce bulk and press the seam open. (Fig 8)



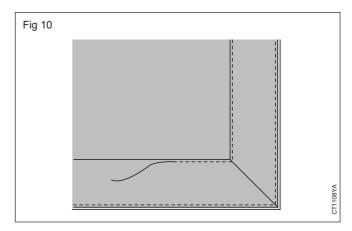
Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.3.22

13 Again fold the tape back aligning its lower raw edge with the sample edge. Starting in last stitch at corner, stitch along the outer edge of tape. (Fig 9)



14 Pull the threads at corner to wrong side and knot. Then stitch along the inner edge of the tape. Press the tape and sample piece. (Fig 10)

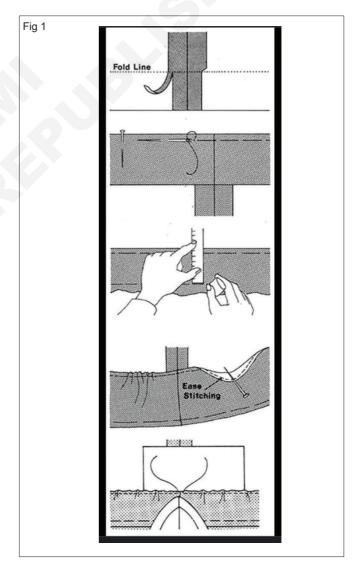
15 Finish the other corners in the same manner.



TASK 6: Ease in a hem

1 Flared the garment with just fold the edges up to 3 cm then fold and mark the wrong side of the width of the seam.

- 2 Stitch the edges of the hem allowance. Then fold the seam and put the pin on it.
- 3 Stitch the folded ends. Remove the pins and press the folded ends.
- 4 Hold the one of the stitches and pull it out little bit. It well shrinks. Stitch over on the shrinks ends.
- 5 Shrinks will not seen on the outside of the dress. Press the wrong side of the garment after sewing.



Apparel Exercise 1.3.23

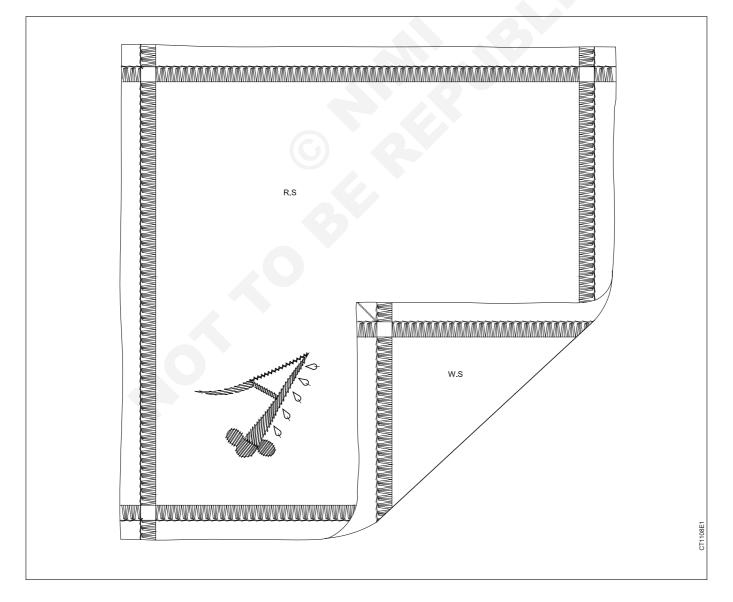
Sewing Technology - Basic Construction

Practice of the corner makings

Objectives: At the end of this exercise you shall be able to

- · stitch a handkerchief by hand
- design decorative lettering (monogram)
- finish different types of corners.

Requirements **Machines Materials** • Single needle lock stitch machine - 1 No. Cotton fabric - 1 m Thread - 1 No. **Tools/ Equipments** Scissors - 1 No. Hand needle - 1 No. Measuring tape - 1 No. Machine needle - 14 Nos.

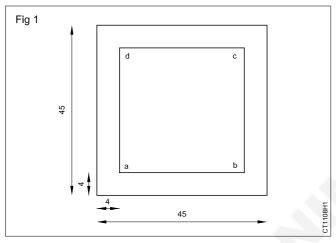


Job sequence

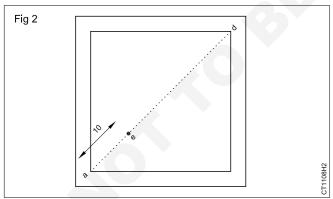
- Cut the material into 2 pieces of 45 x 45 cm. Use one for the handkerchief.
- · Check the material for its size and mill flaws.
- · Shrink the material and press.
- Create the design for lettering on tracing paper of 4-6 cm height. Perforate the outer lines with a pin.

The actual measurement after finishing will be 40 x 40 cm.

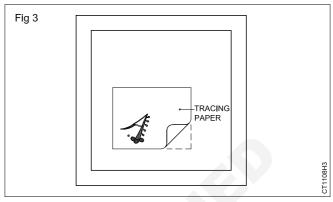
 Mark points a, b, c, d 4 cm from each edge and join them. (Fig 1)



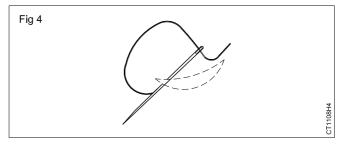
- Create a diagonal line from a to d by folding and pressing.
- Mark point 'e' at a distance of 10 cm from point 'a' on the diagonal line (position of monogram). (Fig 2)



 Set the centre of base of lettering on the point 'e' marked on cloth. Transfer the design on fabric using blue solution and swap. You can also trace a design with the help of carbon paper. In both cases, you have to draw design first on paper. (Fig 3)



- Remove one thread at a distance of 4 cm from all edges of the handkerchief. Remove 3 more threads towards the centre of cloth alternately on all sides.
- Fix the lettering traced portion of fabric in the centre of an embroidery frame and screw the frame carefully, keeping the cloth tight inside the frame.
- Determine the parts of lettering for different stitches using i.e. stem, satin, chain, cross stitches, etc.
- · Select the colour scheme of embroidery threads.
- Fill the portions marked for selected stitches and selected coloured thread.
- If you use satin stitch make first a border with running stitches. Then fill the marked portion with satin stitches covering the running stitches. (Fig 4)
- · Finish the corners by hand.



- Finish the edges by hand using hem-stitch.
- · Finish and press.
- Prepare other types of corners on a sample piece.

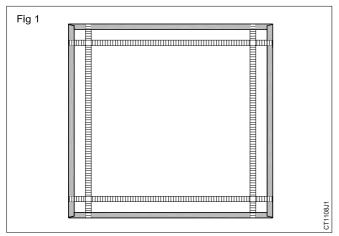
Skill sequence

Turned - out corner

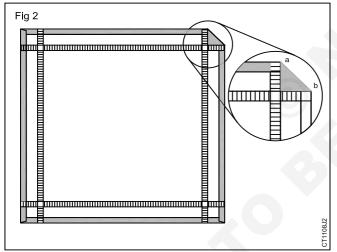
Objective: This shall help you to

• make the corners of the handkerchief.

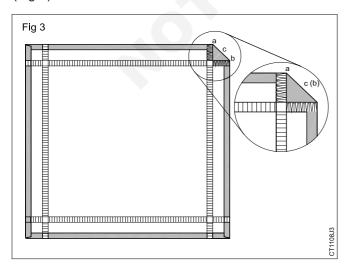
Turn edges of fabric 0.5 cm towards wrong side of the fabric on all edges. (Fig 1)



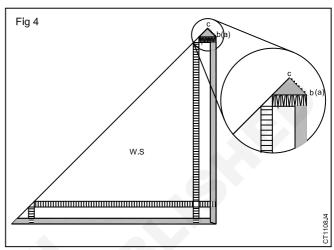
Fold corner and set the corner point on the corner of the hole created by removed threads. Fix with 2 stitches. (Fig 2)



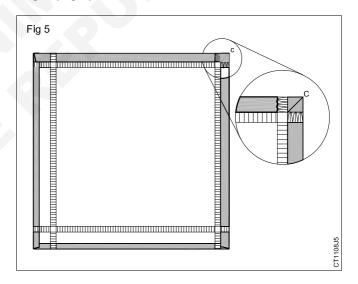
Stitch the turned edges of the corner with hem stitch. (Fig 3)



Fold the handkerchief in that way that points a and (Fig 3) will be joined and the right sides of fabric are together. Join the edges with whip stitch. (Fig 4)



Turn the edge inside out so that c will be on top of the edge. (Fig 5)



Repeat the same process for all the other corners.

Make the corners of the pieces diagonal

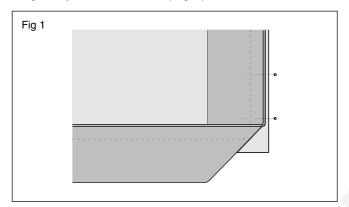
Objective: This shall help you to

· prepare the corners of the strips by mitring.

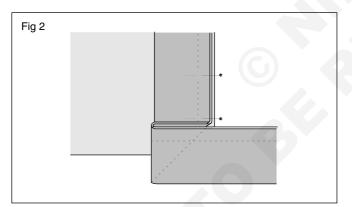
Fix the strip with pins on the longer side of the pillow cover piece (I). Start after 1/3 of the side. The folded side of the strips should be inwards.

Don't start joining at the corner. Don't start stitching on the joints of the strips.

Stop at the corner on seam line crossing, fold strips diagonally towards fabric. (Fig 1)

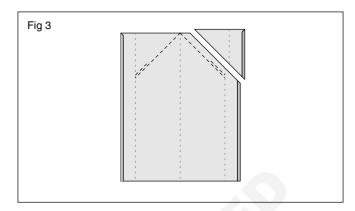


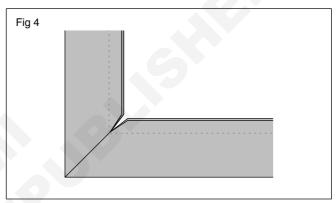
Fold the strip straight back towards the corner so that the fold is aligned with the strip edge; press slightly. (Fig 2)



Remove the strip from pillow cover piece and open it out completely. (Fig 3) Fold the strip along the horizontal press line, right sides together. Stitch along the diagonal press lines that form a "pyramid"; start stitching leaving 6 mm from the raw edge and finish leaving 6 mm from the other edge. Secure stitches. Trim away excess at corners leaving 6 mm seam allowance on each side. Clip to point.

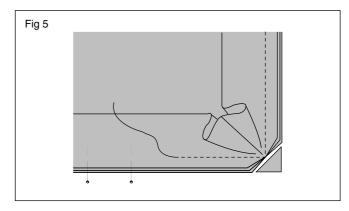
Press open seam allowances and turn mitred corner right side out. Again fold the strip on its centre then the mitred corner will appear on the strip. (Fig 4)





Pin the strip on the right side of the pillow cover piece (I). Corner of the strip has to match with the corner of pillow cover piece and the raw edges of the strip have to match with the raw edges of the pillow cover. Repeat the process of corner making for the other three corners.

Stitch along the four edges (shorten stitches around corners). Trim off the seam allowance at corners. (Fig 5)



Sewing Technology - Basic Construction

Making samples of casing

Objectives: At the end of this exercise you shall be able to

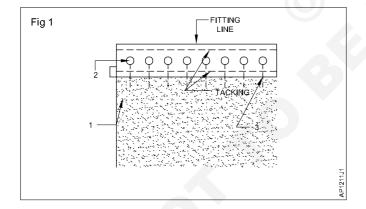
- · prepare fold down casing
- · prepare applied casing
- · prepare casing with draw string
- prepare casing with elastic
- · prepare casing and heading.

Requirements **Materials Tools/ Equipments** Long cloth or poplin - 1 m Lock stitch sewing machine - 1 No. Sewing thread Iron box - 1 No. - 1 No. Hand needle - 1 No. Scissors - 1 No. Dress maker's pin - 1 box

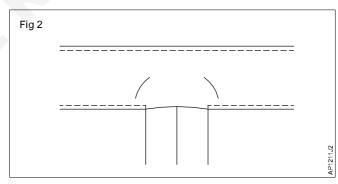
PROCEDURE

TASK 1: Fold down casing

- 1 Mark the fitting line, fold 1 cm to the wrong side.
- 2 Fold along the fitting line to make the tunnel.
- 3 Pin and tuck the casing, then press.

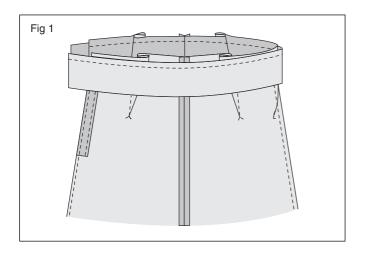


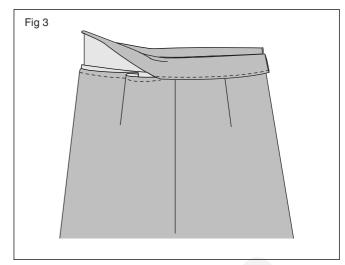
- 4 Machine stitch along the upper and lower edges of casing.
- 5 Leave an opening of approx. 4 cm on the lower edge
- 6 Back stitch at both the open ends of lower edge.

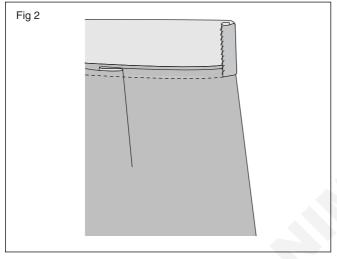


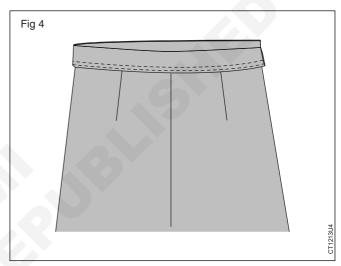
TASK 2: Applied casing

- 1 Place and pin the casing on waistline, right side of casing and wrong side of petticoat together. Start to pin from placket. Take care that balance marks on casing match the side seamlines and the centre of petticoat. Baste and stitch at a distance of 0.75 cm from raw edge. (Fig 1)
- 2 Turn the petticoat to right side and fold the casing up (i.e. turn by 180°). Press the seam allowance flat to casing piece.
- 3 Finish the raw edges of casing on sides. Turn the edge first by 0.5 cm and then by 1 cm. Hem, covering the seam allowance. (Fig 2)
- 4 Fold down casing on the centre line and pin the casing on the right side covering the previous seam line. Match the balance marks with side seam lines of the petticoat. Baste and top stitch through all layers. (Fig 3)
- 5 Top stitch a parallel stitch line at a distance of 0.5 cm.





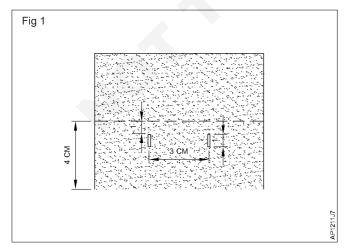




6 Keep the material under needle and pressure foot, lift the presser foot and pivot material by 90°, stitch 0.5 cm up, pivot material again etc. (Fig 4)

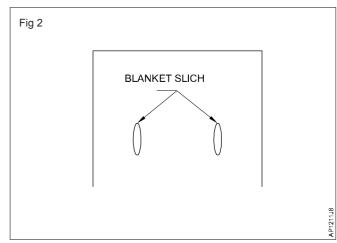
TASK 3: Casing with draw string

- 1 Mark the fitting line.
- 2 Mark and cut two holes for the draw string.

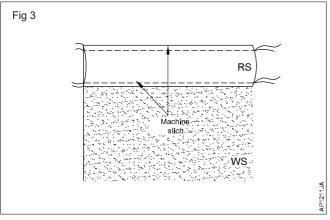


- 3 Finish the holes with blanket/ button hole stitch.
- 4 Fold 1 cm to the wrong side (First turning).

- 5 Fold along the fitting line to make second turning.
- 6 Pin, tack and press.

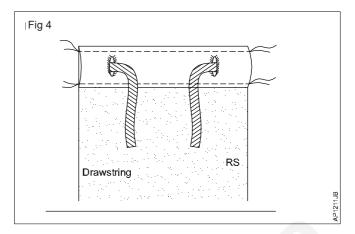


- 7 Machine stitch along the upper and lower edges of the casing.
- 8 Remove tacking.



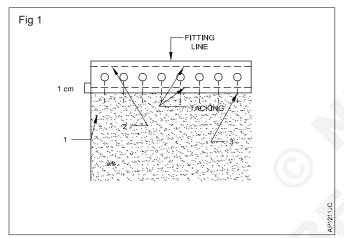
9 Insert the draw string from one hole.

10 Push it through casing and draw it out from the other hole.

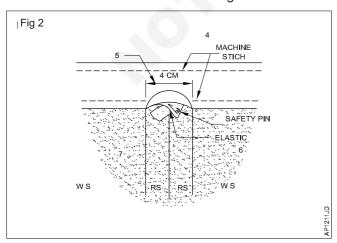


TASK 4: Casing with elastic

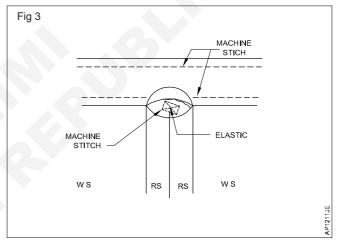
- 1 Mark the fitting line, fold 1 cm to the wrong side.
- 2 Fold along the fitting line to make the tunnel.
- 3 Pin and tuck the casing, then press.



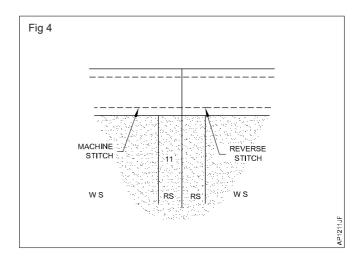
- 4 Machine stitch along the upper and lower edges of the casing.
- 5 Leave an opening of approx. 4 cm on the lower edge and remove the tacking.
- 6 Attach a safety pin to one end of the elastic.
- 7 Pin the other end of elastic to the garment.



- 8 Push the safety pin with the elastic through casing.
- 9 Remove safety pin. secure the ends of elastic by placing ends one over other and make a square stitching.



- 10 Machine stitch along the lower edge of the opening to close the casing.
- 11 Spread the gathers evenly in the casing.



Sewing Technology - Basic Construction

Making samples of neck edge finishing

Objective: At the end of this exercise you shall be able to

· finish the neckline using facing, binding, piping.

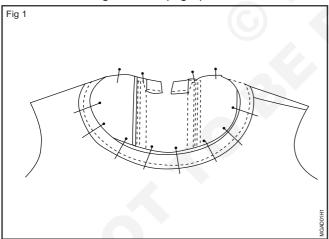
Requirements **Tools/ Equipments Materials** Long cloth or poplin - 1 m Lock stitch sewing machine - 1 No. Sewing thread Iron box - 1 No. - 1 No. Hand needle - 1 No. Scissors - 1 No. Dress maker's pin - 1 box

PROCEDURE

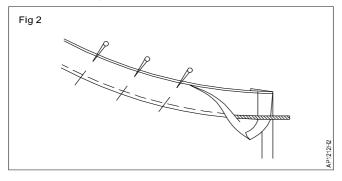
TASK 1: Piping or cording

Working method of piping

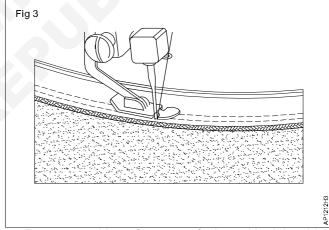
- 1 Measure the shape neckline and cut piping or cording piece of length 3cm to 4 cm than the neckline measurement and 3cm wide.
- 2 Open the placket or zipper, pin the cording to right side of garment with cord just outside seam line and the cording stitch line just inside seam line leave excess cording at ends. (Fig 1)



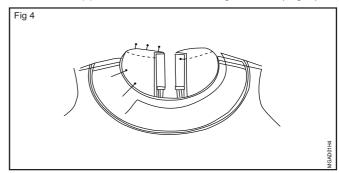
3 At ends, release enough of stitching adding cord to open fabric, and then cut cord to even with placket edges. Trim fabric ends to 6mm. (Fig 2)



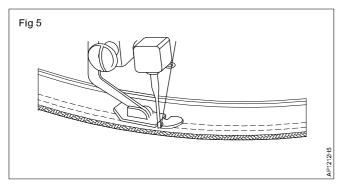
4 Remove taking. Tack cording to garment, remove pins. Using a zipper foot adjust to right of needle. Stitch cording to garment. Stitch between cord and the stitching encasing the cord. (Fig 3)

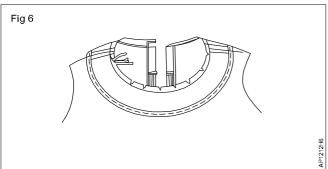


5 Remove tacking. Construct facing with right sides together, pin and tack to garment. Warp ends of facing around zipper halves to inside of garment. (Fig 4)

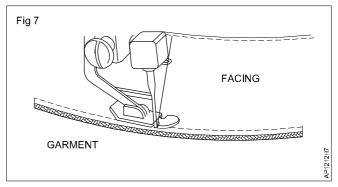


- 6 With wrong side of garment up stitch facing to garment along seam line (Fig 5)
- 7 Press seam flat. Trim the seam allowances diagonally at cross seams and corners. Press seam open and then press facing and seam allowances away from garment. (Fig 6)

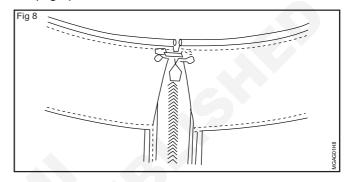




8 Extending facing and seam allowance away from the garment, under stitch along neck seam line. Use zipper foot stitch from right side of facing through all seam allowances. (Fig 7)



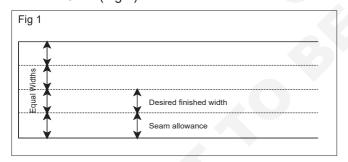
9 Turn facing to inside and press. Tack facing to garment at shoulders. Tack fabric at ends of cording closed slip stitch facing ends to zipper tapes. Attach fasteners. (Fig 8)



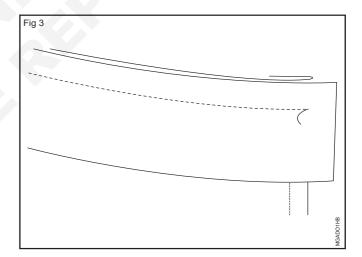
TASK 2: Binding

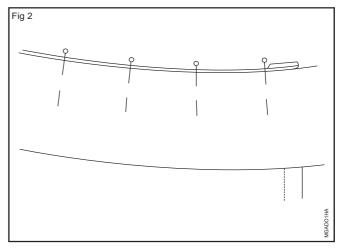
Working method of single layer binding

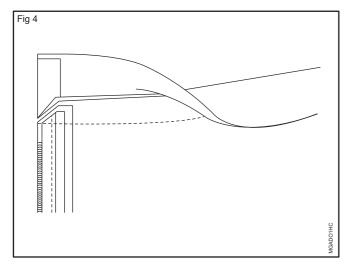
1 For a single layer binding cut binding of four times the desired finished width and the length of the neck seam line + 5cm. (Fig 1)

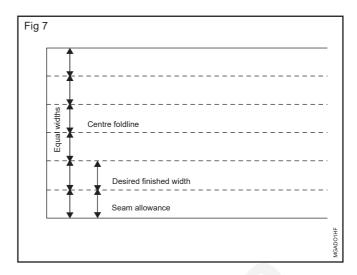


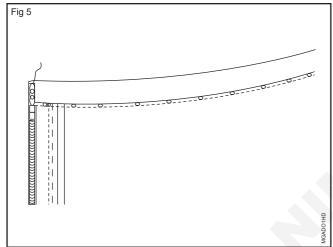
- 2 Open zipper. Place the binding over the garment with their right sides facing each other. Pin it after checking for correct matching of neck shapes. (Fig 2)
- 3 Stitch the binding to garment along the seam line. Remove pins and trim excess binding at ends to 1cm. (Fig 3)
- 4 Fold ends of binding back, even with placket edges. Trim across corners. Bring binding up over the seam allowances to inside garment. (Fig 4)
- 5 Fold the raw edge of the binding along the seam line. Pin in place. Slip stitch ends. (Fig 5)
- 6 From inside, press the neck edge. Close zipper and attach fastener. (Fig 6)

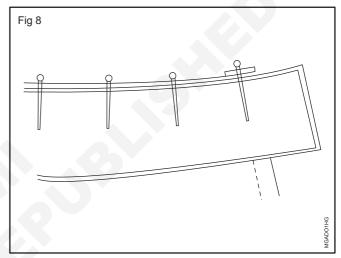


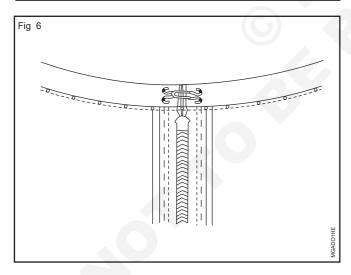


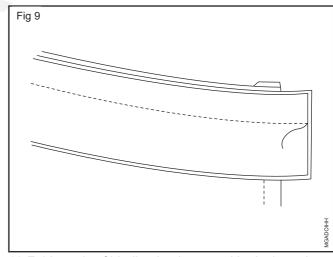






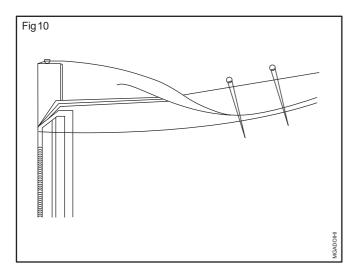


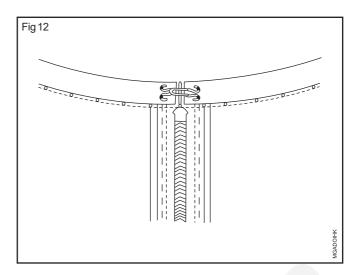


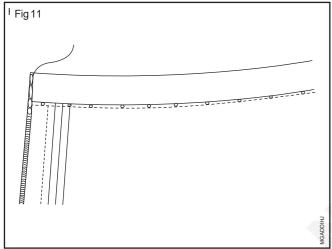


Working method of double layer binding

- 7 For double layer binding, cut the strip double the size of single layer binding. (Fig 7)
- 8 Open zipper. Right sides together pin the binding (Fig 8)
- 9 With binding up stitch to garment along the seam line removing pins. Trim excess binding at ends to 1 cm. (Fig 9)
- 10 Folds ends of binding back even with placket edges. Trim across corners and cross - seam allowances. Bring binding up over seam allowances to inside of garment. Pin in place. (Fig 10)
- 11 Slip stitch ends of binding closed, slip stitch the folded edge of binding to garment along the entire neck seam line. (Fig 11)
- 12 From the inside, press the neck edge. Close zipper and attach fasteners. (Fig 12)



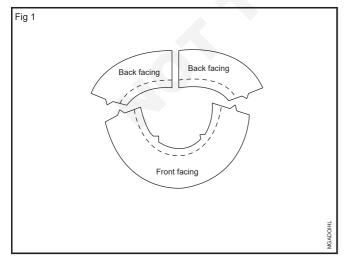




TASK 3: Facing

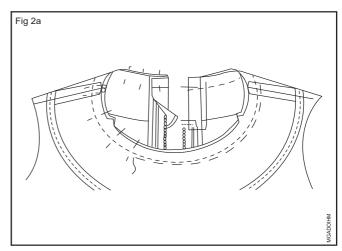
Working method of shaped facing

- 1 Draw the shape of the edge to be finished. (i.e.) neckline in a brown paper.
- With this neck outline as base measure about 5cm (facing piece width) all around the shaped neckline and draw complete the facing piece pattern. (Fig 1)



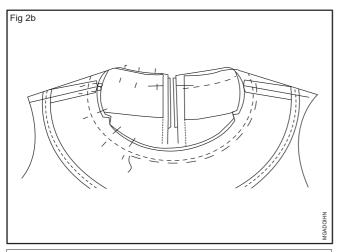
3 Using pattern cut the facing piece from the remaining fabric.

- 4 Place the facing over the neckline of the garment with its right sides facing each other and pin it and tack it.
- i) If zipper has been inserted open zipper and warp ends of facing to inside around each zipper. Half tack facing to garment along neck seam line. (Fig 2a)



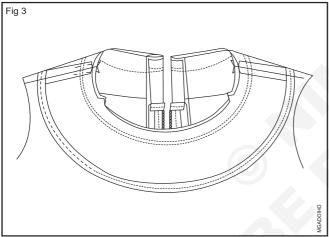
ii) If zipper has not been inserted:

Facing ends can be handled by keeping centre back seam allowances of both facing and garment extended the pin and tack them together in position. (Fig 2b)

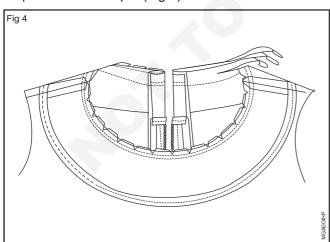


If the neckline is of square shape, apply the facing in the same way but reinforce the corners by short stitches for 2cm on both sides of each corner.

5 With facing side up, facing to garment along the neck seam line. Strengthen stitches at both ends. Remove tacking. (Fig 3)

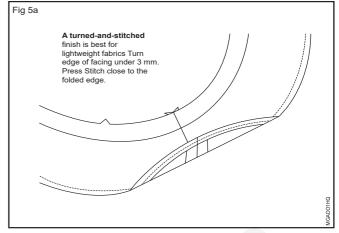


6 Trim the seam allowances as shown in fig to bring cut perfect neck shape. (Fig 4)

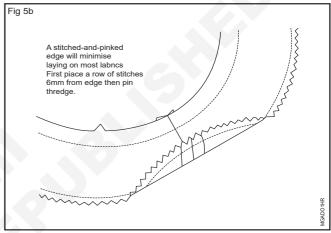


- 7 Turn facing to inside of the garment, check whether the centre front or centre back of the facing coincide with the garment for correct shape and press it.
- 8 Work out the other end of the facing using any one of the shown method

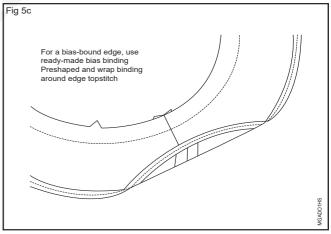
i) A turned and stitched. (Fig 5a)



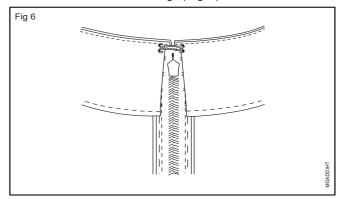
ii) A stitched and pinked. (Fig 5b)



iii) Using bias binding (Fig. 5c)



9 With ends folded under, stitch a row of machining to finish the neckline facing. (Fig 6)



Apparel Exercise 1.4.26

Sewing Technology - Garment Part Construction

Make samples of different shaped neck lines

Objectives: At the end of this exercise you shall be able to

- · draw different neck line shapes
- finish the neck line edges by facing.

Requirements				
Tools/ Equipments		Materials		
 Lock stitch sewing machine Iron box Hand needle Scissors Dress maker's pin Pencil 	- 1 No. - 1 No. - 1 No. - 1 No. - 1 No. - 1 No.	Long clothSewing threadA4 size paper	- 1.5 m - 1 No. - 3 Nos.	
• Eraser	- 1 No.			

PROCEDURE

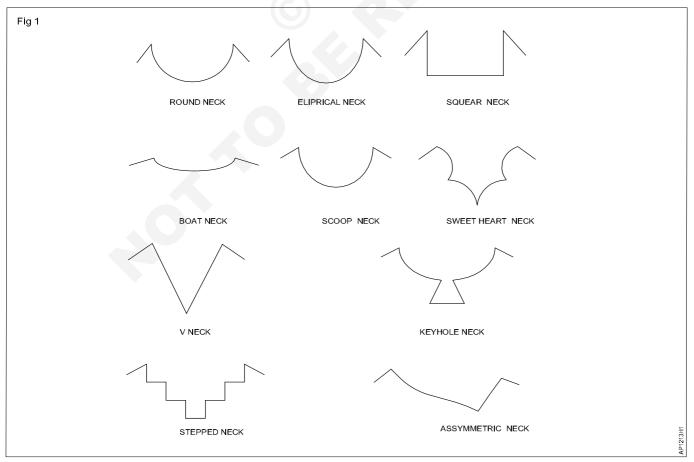
TASK 1: Draw different neck line shapes

- 1 Takes one A4 size sheet
- 2 Practice the following neck line shapes with the help of HB pencil (Fig. 1)

TASK 2: Finish the neck line edge by facing

- 1 Cut the neck line shapes with shoulder in a fabric.
- 2 Finish the neck line edges by facing

Get the work checked by your instructor



Apparel Exercise 1.4.27

Sewing Technology - Garment Part Construction

Making samples of plackets

Objectives: At the end of this exercise you shall be able to

- · make sample of a faced placket
- · make sample of two -piece placket for waist line
- · make sample of continuous placket
- · make sample of Italian placket
- · make sample of two- piece placket for upper garment
- · make sample of one- piece placket.

Requirements

Tools / Equipments

- Single needle lock stitch machine 1 No.
- Hand needleScissors

- 1 No. - 1 No.
- · Dress maker's pin
- 1 Box

Materials

- · Long cloth or muslin
- 0.30 x 0.90 m

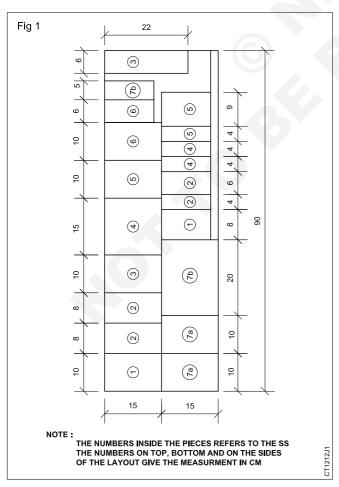
- 1 No.

- · Sewing thread
- 0.15 x 0.90m Long cloth / Poplin

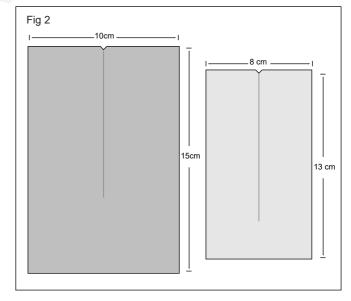
PROCEDURE

TASK 1: Construct a faced placket

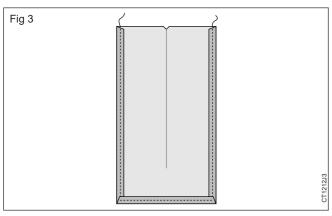
1 Cut the material for all the samples plackets as per given layout. (Fig 1)



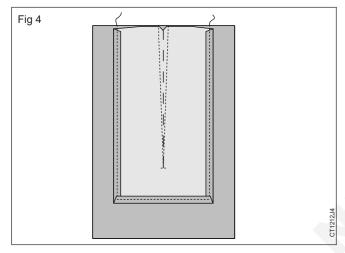
- 2 Take two pieces of fabric 15 cm x 10 cm (sample) and 13 cm x 8 cm (facing).
- 3 Draw 10 cm long lines on the right side of the sample piece and on the wrong side of the facing piece. Mark in the centre of both. (Fig 2)



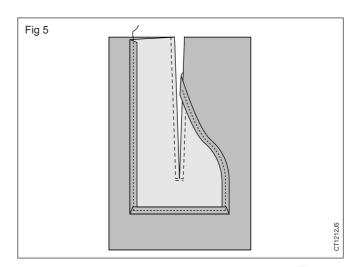
- 4 Turn the edges of facing by 1 cm and leave the top edge. (Fig 3)
- 5 Place facing piece on sample piece with right sides together. Match the centre lines and based on the line.
- 6 Mark 5 mm on both sides of the centre line on the top edge. Join the two marks with bottom end of centre line in V-shape.



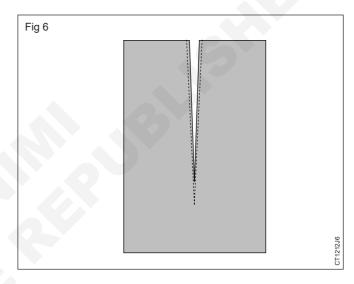
7 Stitch over the lines which form V-shape. Start on top, stitch down to peak point, take 2 stitches horizontally and stitch back on other line up to top. (Fig 4)



8 Slash on the centre line leaving 2 mm at peak point. Turn the facing on the wrong side and press it gently to make out the edge. (Fig 5)

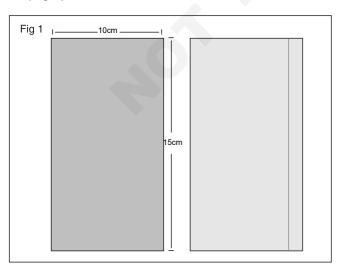


9 Stitch top seam from right side on the edges of the placket outlines. (Fig 6) Trim the ends of threads and press it.

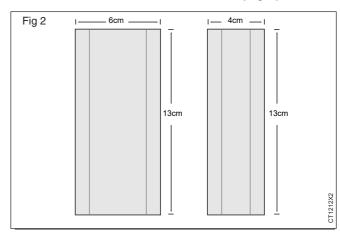


TASK 2: Construct a two-piece placket (for waistline)

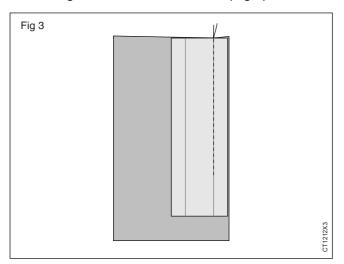
1 Take 2 sample pieces of 15 x 8 cm and mark the seam line on wrong side leaving 1 cm seam allowance. (Fig 1)



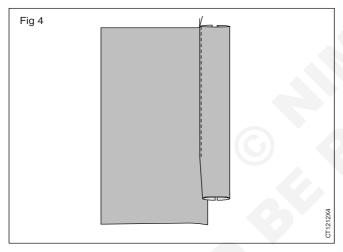
2 Take 2 facings of 13 x 6 cm and 13 x 4 cm and mark seam allowance on the wrong side of both pieces at a distance of 1 cm from both sides. (Fig 2)



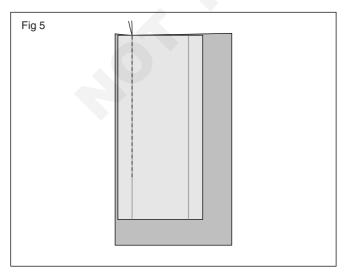
3 Take one sample piece and fix smaller facing (13 x 4 cm) on the right hand side with right sides of fabric together. Baste and stitch on the seam line up to 10 cm length. Lock seam at the end. (Fig 3)

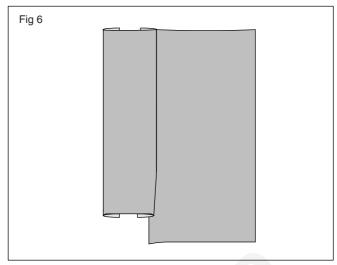


4 Fold raw edge of placket piece by 1 cm on the wrong side. Turn the facing by 180°, right side upwards. Press and stitch close to the edge upto the length of seam line. (Fig 4)

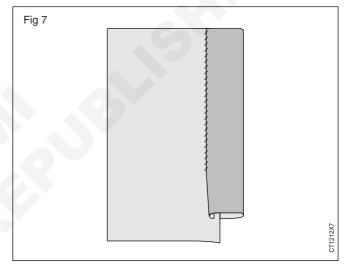


5 Repeat the same process for other sample and facing piece, but don't top stitch from the right side of the fabric. (Fig 5 and 6)

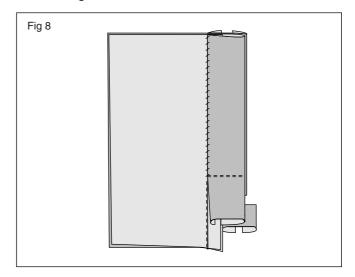




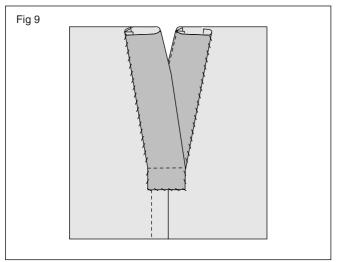
6 Turn to the wrong side. Roll over the turned edge of bigger facing on the seam line and hem the edge along the seam. (Fig 7)



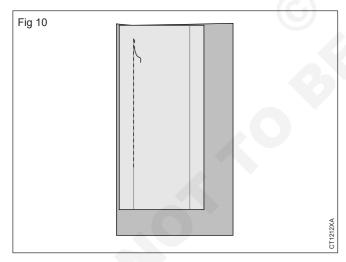
7 Place the 2 sample pieces one over the other with right sides together. The sample with bigger facing has to be on top. Join them on the remaining unstitched seam line; first baste, then stitch with machine on the seam line. Lock the placket at the end of the seam line with 2 rows of stitches. (Fig 8) Trim the smaller piece of facing at the bottom.



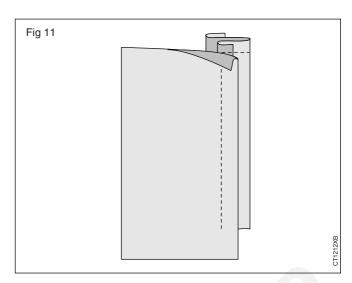
8 Unfold the 2 sample pieces with wrong side up. Set the smaller facing on the sample piece and hem the loose edge. Turn under the raw edge of the bigger facing piece at the bottom and hem to sample pieces. (Fig 9)

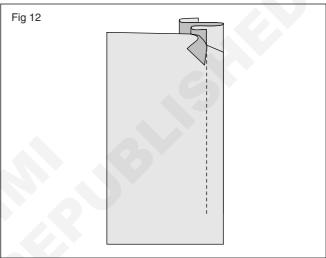


- 9 Variation of two-piece placket for petticoat.
- 10 The following variation of the 2-piece placket (waistline) is used in petticoats. You can apply the method in the next exercise or you stitch it separately using the leftover material of exercise 5 and 11 for example.
- 11 Follow the process as described above up to Fig 4.
- 12 Take the other sample as described above and facing pieces, stitch on the seamline but stop 1 cm before the upper edge. (Fig 10)

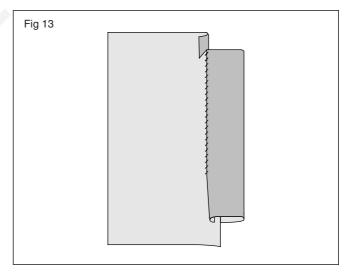


- 13 Fold raw edge of the facing to wrong side by 1 cm. Turn facing by 180°, with right side upwards. Press on the seamline and turn the piece with wrong side up.
- 14 Fold the facing back on centre line with right sides together, covering the previous seamline. Baste and stitch on top portion of facing only. Take care to fold back the sample piece. (Fig 11)
- 15 Clip the seam allowance of the sample piece on top of the seamline diagonally. (Fig 12)

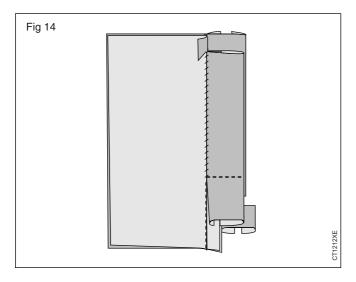


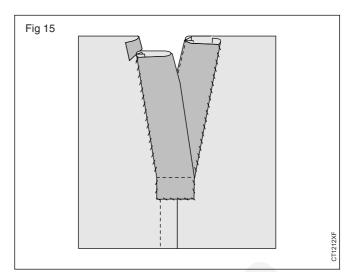


16 Turn the facing inside out. Set loose edge on the previous seamline and hem it. (Fig 13)



17 Place the two sample pieces one over the other with right sides together. The sample with the bigger facing must be on top. Join the two sample pieces in the lower part on the remaining unstitched seamline. Lock the placket at the end of the seamline with 2 rows of stitches. (Fig 14)

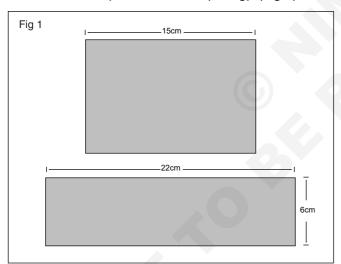




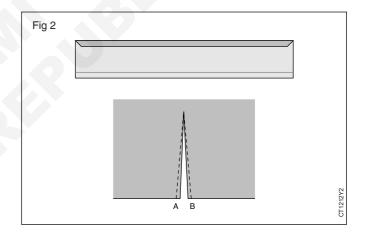
18 Unfold the two sample pieces with wrong side up. Set the smaller facing on the sample piece and hem the loose edge. Trim the smaller facing at the bottom. Turn under the raw edge of the bigger facing at the bottom and hem it to the sample pieces. (Fig 15)

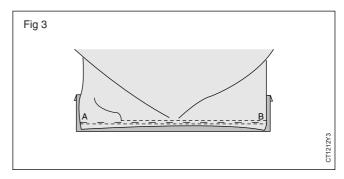
TASK 3: Construct a continuous placket

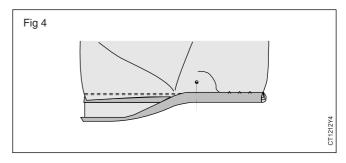
1 Take two pieces of fabric: one 15 x 10 cm (sample) and the other piece 22 x 6 cm (facing). (Fig 1)



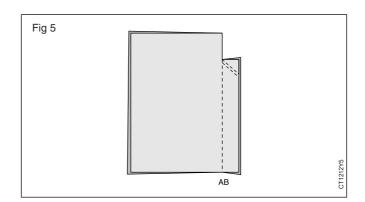
- 2 Turn the long edge of the facing piece by 1 cm to wrong side. Mark 5 mm from either side of the centre line on bottom. Join the marks with the top point of centre line in V-shape. Stitch on V-shape for reinforcement.
- 3 Slash on the centre line (Fig 2)
- 4 Spread open the slashed portion. Tack the facing along the slashed edge of the sample piece, leave 1 cm on each side with the right sides of both the pieces together. Stitch. (Fig 3)
- 5 Turn the folded edge of placket piece over the seam covering the seam allowance, tack and hem. (Fig 4)
- 6 Fold the piece on centre i.e. on the slashed line keeping right side of the fabric inside.





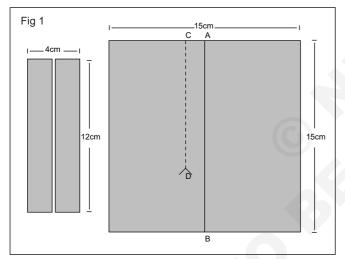


7 Make diagonal tack (twice) on the folded end of the placket. (Fig 5)

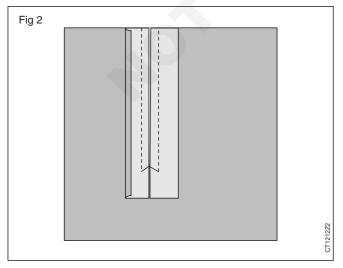


TASK 4: Construct an Italian placket (hemmed placket)

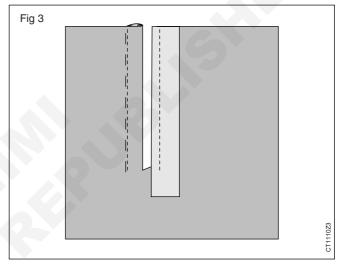
- 1 Take a piece of fabric 15 x 15 cm (sample piece). Take two pieces of fabric 12 x 4 cm for facing.
- 2 Draw a centre line on the sample piece, mark A and B. Take a point C at a distance of 1.5 cm from point A and draw a parallel line to the centre line 10 cm long. Mark point 'D'. (Fig 1)
- 3 Slash on the grain line 'C' to 'D' and clip diagonally to both sides on point D by 0.5 cm. (Fig 1)



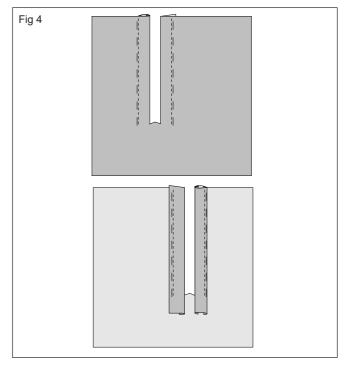
4 Set both the strips (12 x 4 cm) along with the slashed portion with right sides together and stitch up to clip and turn the edge of right facing by 1 cm. (Fig 2)



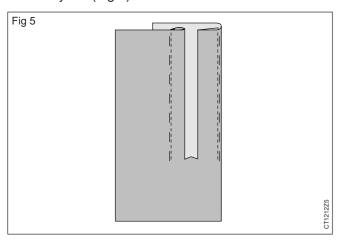
5 Turn the right facing on seam to wrong side of the fabric. Set the strip and stitch on the edge from right side of the fabric. (Fig 3)



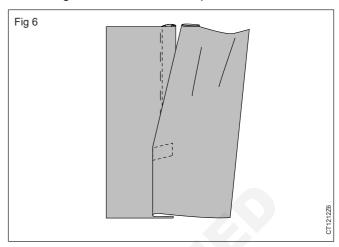
6 Turn the left facing to wrong side and baste the strip with sample piece. Seam, leaving 0.5 cm from the raw edge of the strip. (Fig 4)



7 Fold sample piece on left facing, leaving 3.5 cm and wrong sides of the fabric together. Baste through all the layers. (Fig 5)

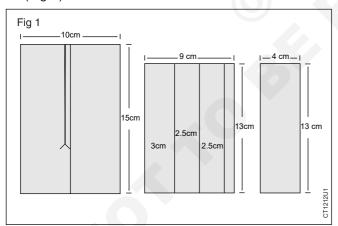


8 Turn the left placket side on the right placket side forming a pleat. Baste. Lock it at the end of the cut portion on the right side of the fabric. (Fig 6) Remove basting, trim the threads and press.

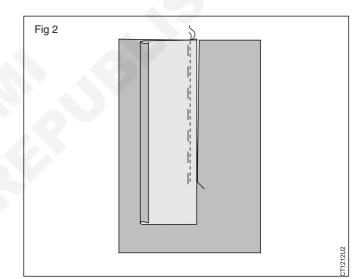


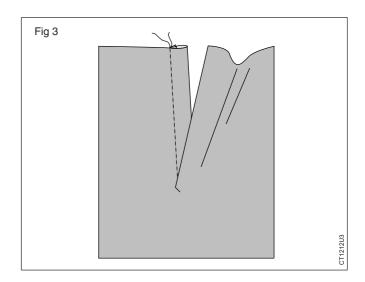
TASK 5: Construct a two-piece placket (upper garment)

- 1 Mark and cut a piece of fabric 15 x 10 cm (sample piece). Cut 2 facings, one of 13 x 4 cm and the other of 13 x 9 cm.
- 2 Mark lines on the bigger facing 3 cm from the edge and two times 2.5 cm from the edge of each line. Mark the centre line on the sample piece. (Fig 1)
- 3 Mark parallel a 10 cm long line for placket opening, 0.5 cm away from the centre line towards left side. Slash the line and clip diagonally (0.5 cm) at the end. (Fig 1)

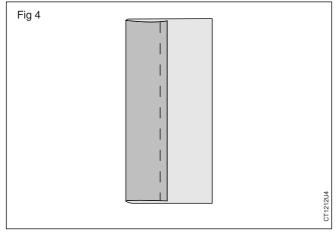


- 4 Turn sample piece to the right side. Place the smaller facing (13 x 4 cm) on the bigger side of the sample piece with right sides of the fabric together. Baste and stitch. Turn the other edge of the facing by 1 cm. (Fig 2)
- 5 Clip facing at end of slash line on the previous clip.
- 6 Turn the facing towards wrong side of sample piece and fix the edge on the previous seam and stitch it in the crevice of the previous seam line from right side. Stop at clip and trim off 1.5 cm from bottom of facing. (Fig 3)

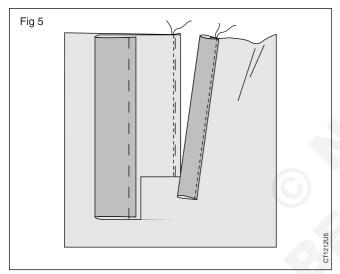




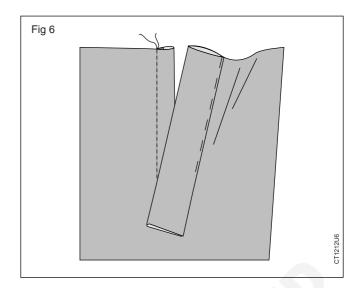
7 Take the bigger facing and fold and press 3 cm side towards wrong side of the fabric. Baste 0.5 cm away from the raw edge. (Fig 4)

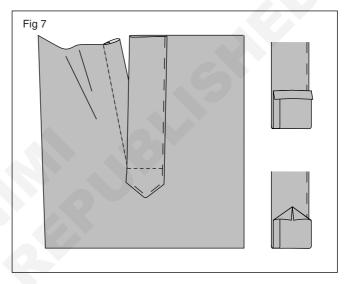


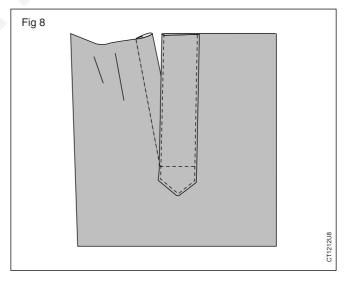
8 Place the right side of the facing on wrong side of the sample piece along the slash line and baste 0.5 cm away from the edge. Cut off a square of 3 x 3 cm from lower end of facing. Stitch along basting. (Fig 5)



- 9 Bring the folded edge of facing to the right side of the fabric. Fold facing once more on the centre and set it covering previous seam. Keep seam allowance inside and baste, leaving 3 cm at lower edge. (Fig 6)
- 10 Fold the lower edge inside by 0.5 cm. Fold back the lower end of facing, forming a V-shape. (Fig 7)
- 11 Fold back on fabric and top stitch all around leaving 1 mm from edges. Tack horizontally 3 mm above the slash end. (Fig 8)

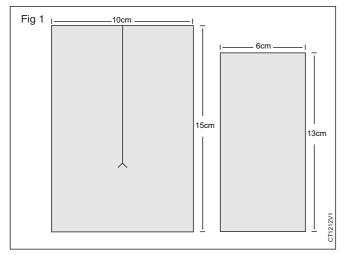




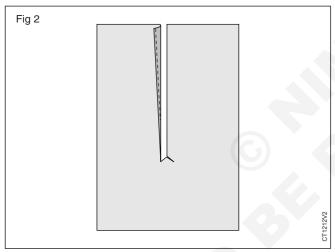


TASK 6: Construct a one-piece placket (sleeve)

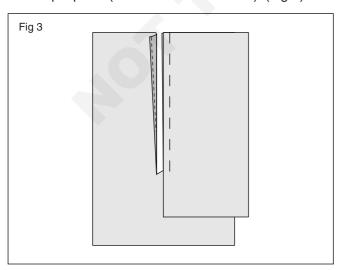
1 Take one piece of fabric 13 x 6 cm (facing) and another piece of 15 x 10 cm (sample). Mark 10 cm long line on centre of sample piece (placket opening) and slash. Clip 0.75 cm diagonally at the end. (Fig 1)



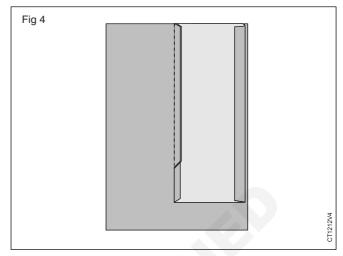
2 On the top edge turn 0.5 cm twice on the wrong side. Taper towards the clip side and machine stitch. (Fig 2)



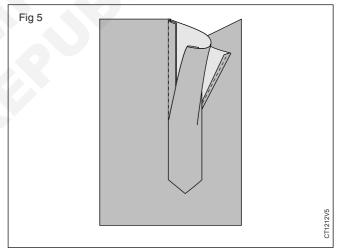
3 Baste facing along the unfinished edge of the placket opening, right side of facing with wrong side of the sample piece (0.5 cm seam allowance). (Fig 3)



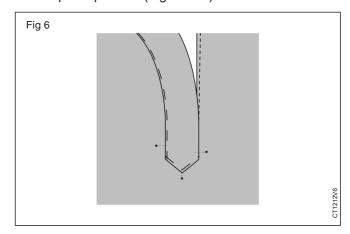
4 Bring facing out on the right side of the sample piece and turn the raw edge of facing by 1 cm. (Fig 4)

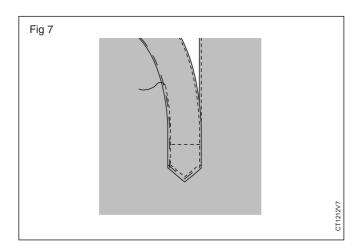


- 5 From lower end of facing close to the stitching line cut off 3 cm in width and 1 cm in length to reduce bulk.
- 6 Roll over the facing on its previous seam, make a fold on the centre line and press. (Fig 5)



7 Turn the corners and form a peak at the centre of the placket end and press. Finish the placket end as in two-piece placket. (Figs 6 & 7)





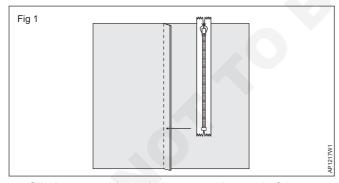
Make a samples of zipper plackets

Objectives: At the end of this exercise you shall be able to

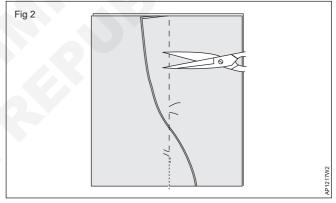
- · construct centered application of zipper
- · construct visible centered application of zipper
- · construct a lapped zipped
- construct an open end zipper application.

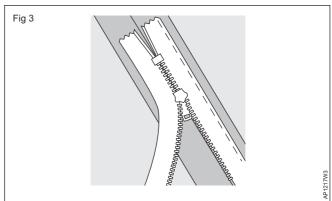
TASK1: Centered application - Invisible

1 Work with motorised sewing machine. Attach zipper foot. Take 10cm long zipper and pieces of fabric (15x10cm); cover 1 piece 1by the other with right sides together. Form a plain seam on the longer side; give 2 cm seam allowance. Follow these instructions. Lock seam in the beginning, use longer machine stitches (i.e.3stitches/cm) up to the end of the placket, i.e. 10cm from top. Stitch back at the end. Reduce the stitch length to normal and stitch to the rest of the length of the fabric. Lock in the end and unfold the pieces. (Fig 1)



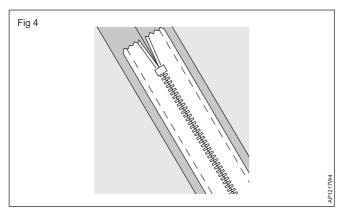
- 2 Clip long machine stitches at an interval of 3 cm, as this seam has to be removed after fixing the zipper. (Fig 2) Press open seam allowance.
- 3 Open the zipper and place the right side of zipper on the wrong side of the fabric. Keep the chain edge along the seam line from top edge of the fabric up the placket opening mark. Baste the zipper tape with one seam allowance. (Fig 3)
- 4 Close the zipper. Baste the other side of the zipper tape with other seam allowance. (Fig 4)

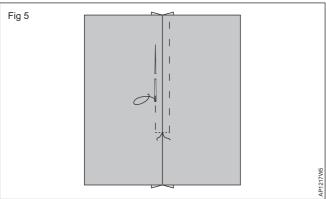




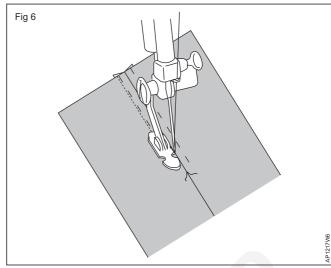
Lock of zipper end should be kept towards the end of the placket opening).

5 Turn the fabric with right side up and spread the fabric as flat as possible. Now baste from right side through all layers of the fabric 6 mm away from seam line. Start basting from the seam line at the bottom end of the opening. (Fig 5)

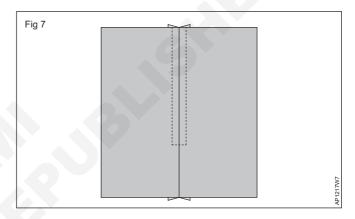




6 Start machine stitching from the right side along the basting from top end of the fabric using a zipper foot. Stop in the end of opening just below the lock of the zipper. Make pivot and cross to other side and stitch up to the top end of fabric. (Fig 6)

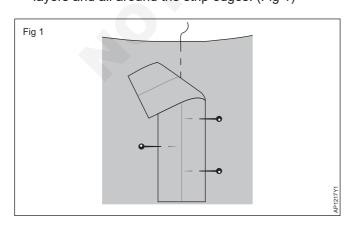


7 Remove basting and clipped centre seam threads. (Fig 7)

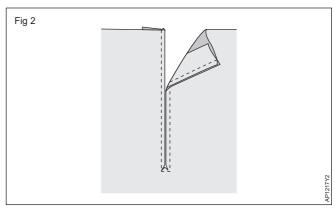


TASK2: Zipper Centered Application - Visible

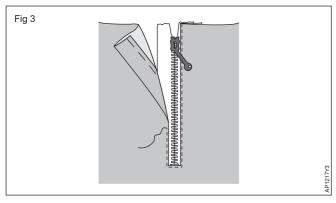
- 1 Zipper placket (visible): Take one piece of the sample cloth of 15 x 20 cm and take a zipper of 10 cm length. Mark 10 cm for slash on the centre line from right side of the cloth. Cut a strip of 13 x 5 cm (length of strip should be app. 3 cm more than the zipper length).
- 2 Fold and press strip on the centre. Match the centre line of strip with sample piece with the right sides together. Baste on the slash mark through both the layers and all around the strip edges. (Fig 1)



3 Stitch from left side round the slash mark at a distance of teeth width plus 2 mm. Slash on slash mark, stop 1 cm before the end and clip to the corners. Remove basting. (Fig 2)

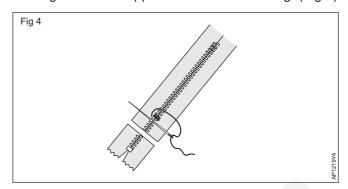


4 Turn the strip pieces towards wrong side of the sample piece. Press and fix with basting. Set the zipper on slash line. Baste zipper below the slash edges and stitch all around. (Fig 3)



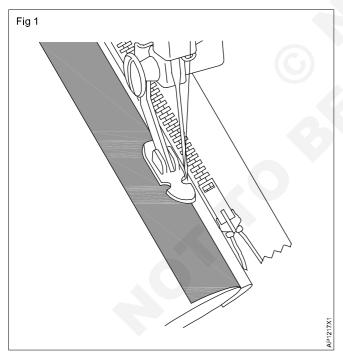
5 How to adjust the zipper length?: Zips are available in different length, but they will not always match the required slit length of the placket. In that case you have

- to use a zipper longer than the placket length and to shorten it.
- 6 Shorten zipper at the lower end. Tack at the required length and trim zipper 1.5 cm below tacking. (Fig 4)

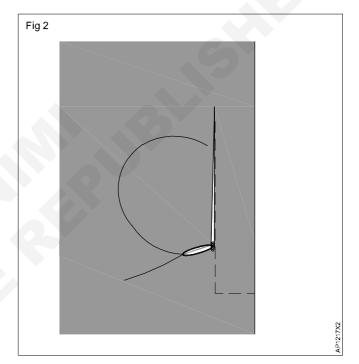


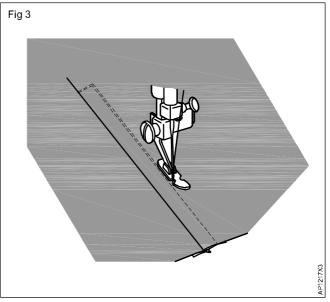
TASK 3: Lapped Zipper

1 Take two pieces of (15x10cm) fabric. Follow the instructions in Task1 till fig 3. Now, position Zipper foot to the left of the needle. Turn the Zipper foot to the left of the needle. Turn the Zipper face up, forming a fold in the seam allowance. Bring the fold close to the Zipper ladder or chain but not over it. Stitch along the edge of the fold with the seam allowance. Bring the fold close to the Zipper ladder or chain but not over it. Stitch along the edge of the fold with the seam allowance the left side sample piece. (Fig 1)



- 2 Turn the fabric with right side up and spread it as flat as possible. Now baste across bottom of zipper, then up along the side. through all layers of fabric 6mm away from seam line. (Fig 2)
- 3 Position zipper foot at the right side and top stitch close to the basting. Remove basting (Fig 3)

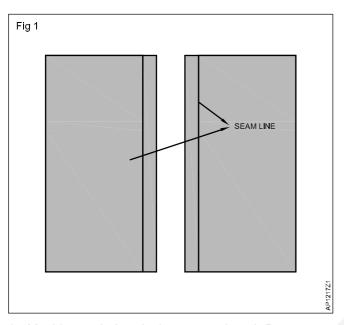




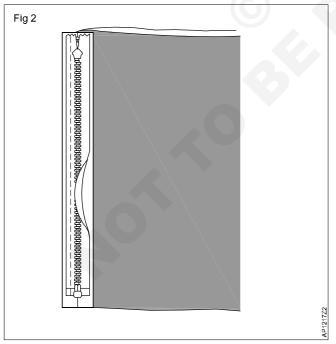
TASK 4: Open end Zipper

Use an open ender Zipper

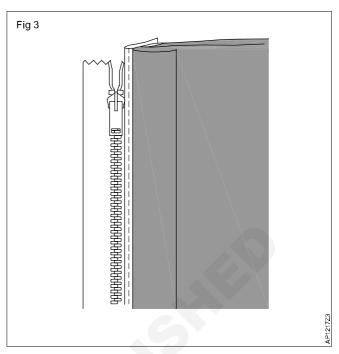
1 Take two pieces of fabric (15x15cm). Mark the seam allowance of placket opening (2cm) at the wrong side of both the fabric. piece. (Fig 1)



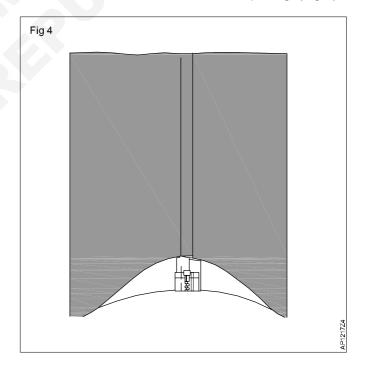
2 Machine tack the placket seam closed. Press open the seam allowances. With the zipper teeth centred over the seam and bottom stop at the bottom of opening position the closed zipper and pin it . Baste the right hand tape to seam allowances from bottom to top (Fig 2)



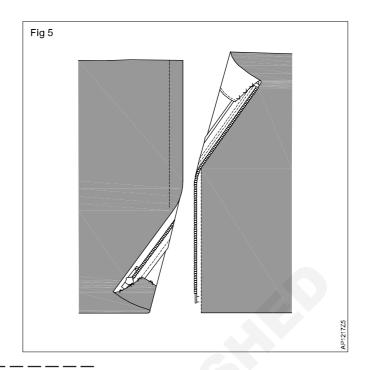
3 Turn the Zipper face up, forming a fold in the seam allowance. Fold close to the Zipper teeth, but care must be taken not it take it over the zipper teeth. Position the foot to the left of the needle and stitch along edge of fold through all thickness of fabric (Fig 3)



4 Turn the fabric with right side up and spread the fabric as flat as possible. Now baste from right side through all layers of fabric from right side through all layers of fabric 6mm away from seamline. Baste from the seamline at the bottom end of the opening. (Fig 4)

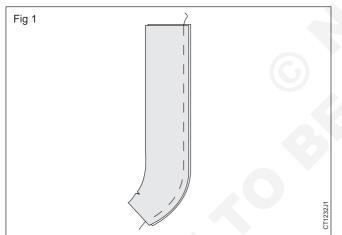


5 Position zipper foot to the right of the needle. Top stitch close to basting. Similarly, top stitch the other side zipper position the foot at the left of the needle (Stitch at the required distance from seamline). Finally, remove the basting to open the zipper and apply facing. (Fig 5)

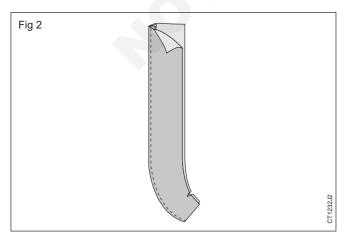


TASK 5: Prepare the zip fly in front part of a trouser cut fabric

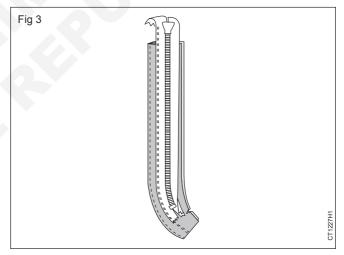
1 Take two fly pieces (left fly is facing, right fly is shield) and their linings. Clip the seam allowance on point 11 in front and fly (see instructions for drafting). Take left fly (=facing part) and lining. Stitch on outer round shape, right sides together. (Fig 1)



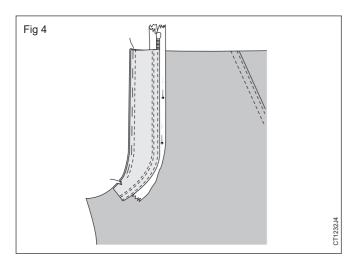
2 Turn right side out and stitch on the edge of previous seam. (Fig 2)

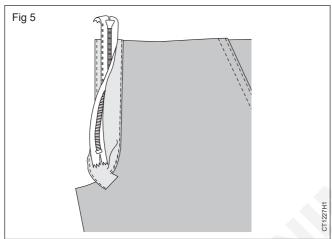


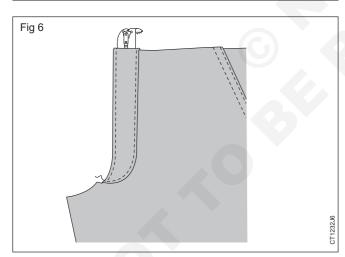
3 Place closed zip on the fly piece wrong side of zip up; leave 0.5 cm from the raw edge and 1 cm above the clip. Baste 6 mm away from the teeth of zip. Stitch with double seam. (Fig 3)



- 4 Baste raw edge of facing and lining with left front of short. Match clip of facing and fly line. Be careful that the edge of zip is not caught by stitches. (Fold zipper back and if necessary pin it to hold it out of the way). Stitch along the basting line from clip to waist edge. (Fig 4)
- 5 Turn facing on seam line away from the front piece. From right side stitch through the facing and all seam allowances close to the edge of facing up to clip and lock the stitch. (Fig 5)
- 6 Fold the facing towards wrong side on the seam line. Baste close to the fold to hold facing in position. From the right side baste a guide line 3 cm away from the fold, maintaining the shape of fly. Stitch close to the basting line. (Fig 6)

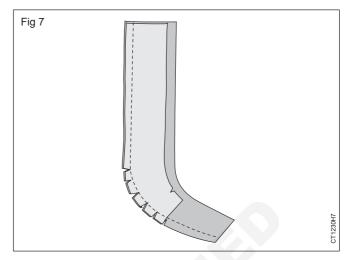


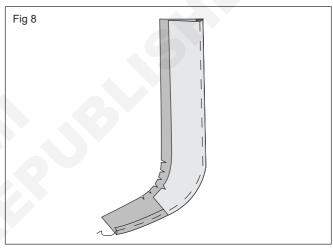


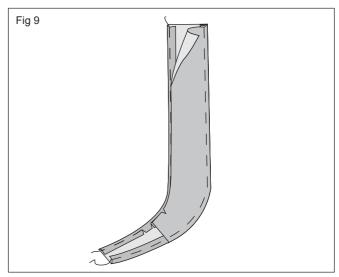


- 7 Stitch the right fly (shield): Take right sides of fly and lining together. Baste and stitch on outer shape. Cut notches on the round shape. (Fig 7)
- 8 Turn right side out. Press and set the outer edge and baste on it up to end. Turn also the edge of the balance part of lining. Cut notches on the inner curved shape of lining. (Fig 8)
- 9 Fold the edge of lining by 1.5 cm to wrong side. Align edge of lining and shield. Baste and press on the lining. (Fig 9)
- 10 Open the zip. Baste the unattached zip part to the fly shield, wrong side of zip on right side of fly shield.

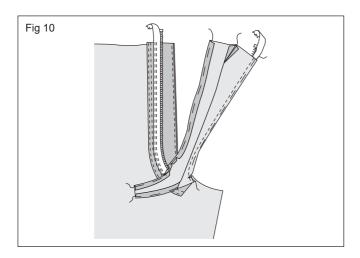
Stitch along the basting but don't stitch the shield lining. Be careful: the position of the zip should be same as in left side facing. (Fig 10)

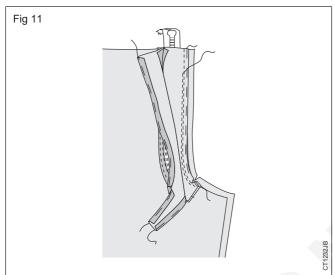




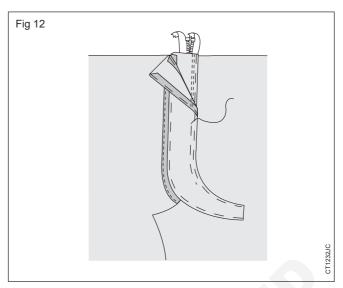


11 Close the zip. Place right front piece under left front piece with right sides together. Edge of fly line of right front has to extend the fly line of left front by 1 cm. Baste zip and shield on the right front short piece along the fly line. Stitch over the previous seam line up to the clip. Turn away lining piece. (Fig 11)

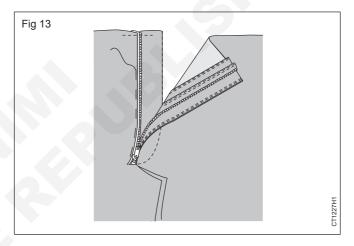




12 Place short flat on table with wrong side upwards. Turn the seam allowance to shield and right front piece towards right front portion. Cover the shield and seam allowance with lining. Baste it. Be careful that the lining is flat on shield, so that no folds and wrinkles come in it. (Fig 12)



13 Turn the garment to the right side. Stitch close to the left fly seam through all layers. Tack zip flat on waistline on both sides 0.5 cm below the waist-line. Trim the edges at the top. (Fig 13)



Sewing Technology - Garment Part Construction

Making samples of different pockets

Objectives: At the end of this exercise you shall be able to

- prepare a patch pocket
- · prepare and fix flap on patch pocket
- · prepare an inseam pocket for trousers
- prepare a slant pocket
- · prepare an inseam pocket for kurta
- · prepare a hip pocket with welt and flap.

Requirements **Tools / Equipments Materials** Single needle lock stitch machine - 1 No. **Poplin** - 0.35 x 0.90 m Iron box - 1 No. Casement - 0.25 x 0.90 m Hand needle - 1 No. Lining (Long cloth) - 0.35 x 0.90 m Scissors - 1 No. Sewing thread - 1 No.

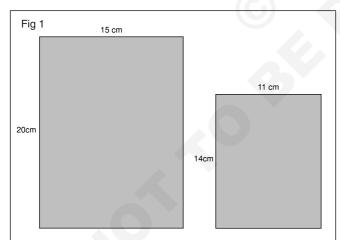
- 1 Box

PROCEDURE

TASK 1: Prepare a patch pocket

Dress maker's pin

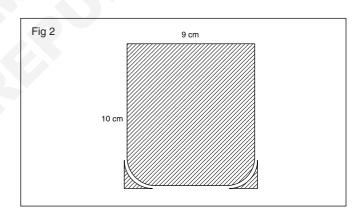
1 Cut one piece of Poplin (20 cm x 15 cm) and another piece of cloth (14 x 11 cm) for pocket. This includes seam allowances and facing on upper side of pocket. (Fig 1)

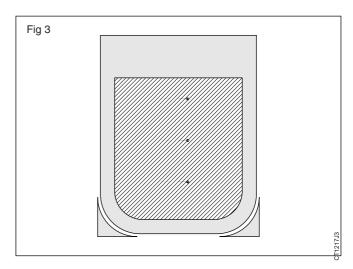


2 Prepare a paper pattern (template) on hard paper of 10 cm x 9 cm (exact size of pocket without seam allowances and facing). Shape the lower corners round. (Fig 2)

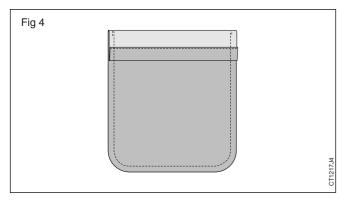
Take care that both rounds are equal.

3 Pin the paper pattern on wrong side of the cloth (14 x 11 cm). Keep 3 cm facing on the top and 1 cm at all other three sides. Mark with chalk or pencil. Transfer the mark with tracing wheel on right side of cloth. Trim off the corners. (Fig 3)

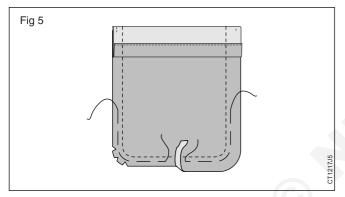




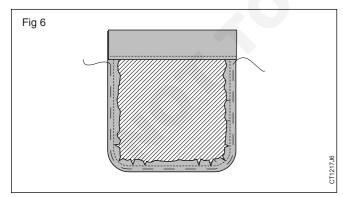
4 Turn the edge of facing by 1 cm on the wrong side of cloth and machine stitch 0.5 cm away from the folded edge. Then turn the facing from folding line on the right side and machine stitch on the side turning mark of both sides of facing. (Fig 4)



5 Mark running stitch 2 mm outside the turning mark of three sides. Notch on the rounds to reduce bulk. (Fig 5)

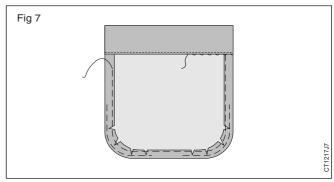


6 Turn the facing on the wrong side. Pull corners out neatly. Put the paper pattern (template) inside the facing touching the folding line on top. This shall help to shape the pocket. Hold one thread end of running stitch and pull the other end tamping seam allowance over the paper pattern until the seam allowance rolls over it. Press gently on the edges. (Fig 6)

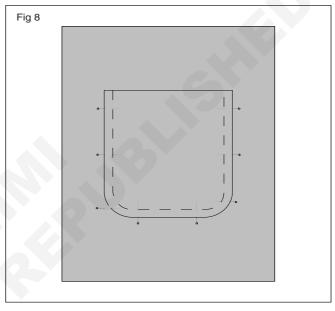


7 Notch on curves and remove thread of running stitch and remove the paper pattern.

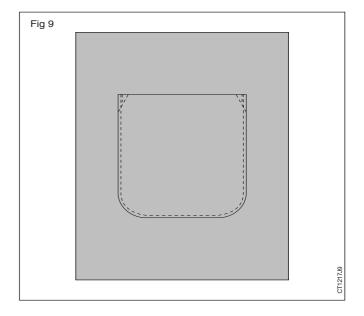
Take care that the turned edges are not disturbed. Finish the facing turning on pocket mouth by slip stitch. (Fig 7)



8 To fix the pocket on the desired position take the piece of cloth (20 x 15 cm). Place the pocket in the centre of it and pin. Keeping right side of cloth up, baste along the sides 2 mm away from the edge, but don't baste on pocket mouth. (Fig 8)

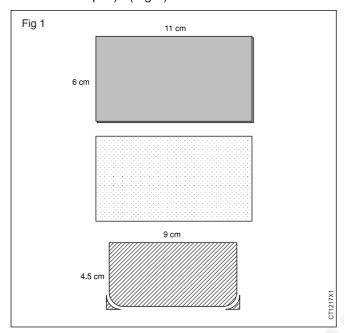


9 Remove pins. Start machine stitching from side top end of pocket. Tack the corners while forming a triangle. Continue up to the other end and tack the corner in the same manner. Remove basting and press. (Fig 9)

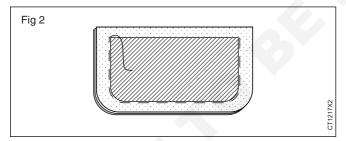


TASK 2: Prepare and fix flap on patch pocket

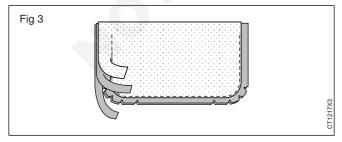
1 Cut 2 pieces of cloth (poplin) and 1 piece of interlining cloth (11 cm X 6 cm). Prepare a paper pattern for flap (9 cm X 4.5 cm) without any seam allowance. Shape the corners of one side, (round shape of both sides must be equal). (Fig 1)



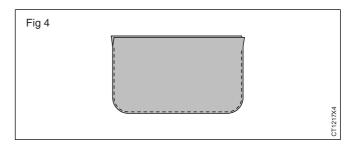
2 Match with right side together the original cloth pieces. Place the facing piece over it. Lay the flap paper pattern on the facing piece leaving seam allowance and pin all around. Mark with chalk or pencil along the edge of the paper pattern. Baste slightly away from the mark. Remove pins and paper pattern. Stitch on the mark. Remove basting. (Fig 2)



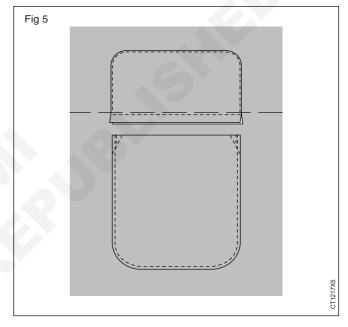
3 Trim the seam allowance and notch the curves. Trim facing completely to seam line. (Fig 3)



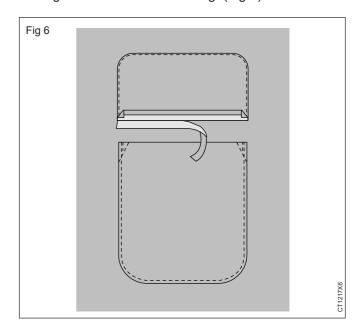
4 Turn the right side of flap out and set the seam by pushing the seam edge inside by 1 mm, so that the seam is not visible from right side. Stitch with machine from right side at 1 mm distance from edge. Start at a distance of 0.5 cm from the flap. (Fig 4)



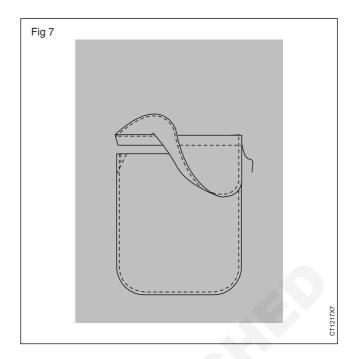
5 Attach the pocket flap above the prepared patch pocket (SS.No.1). Mark flap seam line at 1 cm distance on the top of pocket. Pin flap to the patch piece with right sides together raw edge of flap 0.5 cm away from pocket mouth. Baste first, then stitch on flap seam line. (Fig 5)



6 Remove basting and press open the seam. Trim off carefully the lower seam allowance of facing and original cloth close to stitching. (Fig 6)

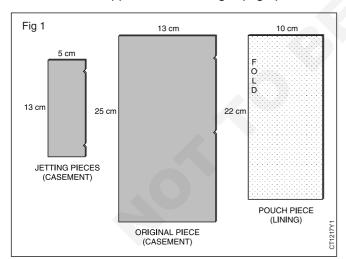


7 Turn down the flap over the pocket and press. Machine stitch at a distance of 5 mm from the turned edge of flap. Tack firmly both ends of seams. Press both pocket and flap. (Fig 7)



TASK 3: Prepare an inseam pocket (trousers)

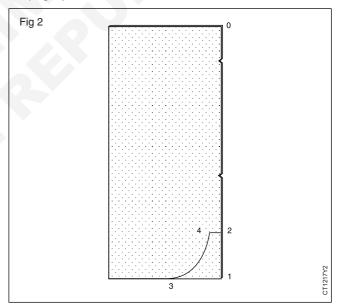
- 1 Take two pieces of casement (25 x 13 cm). Mark points at a distance of 3 cm and 13 cm from top edge on longer side. Cut notches on both the marks.
- 2 Cut one piece of pocket pouch cloth (22 x 20 cm). Fold the fabric lengthwise.
- 3 Cut two pieces of casement cloth (13 x 5 cm) for pocket stay jetting.
- 4 Cut notches on one longer side of jetting piece leaving 1.5 cm from upper and lower edge. (Fig 1)



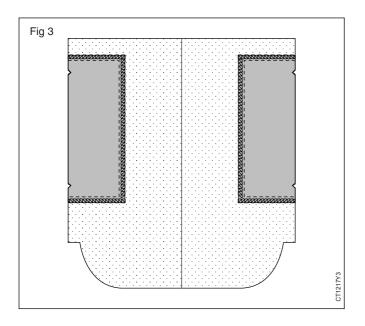
Depth of all notches should be of 1 cm.

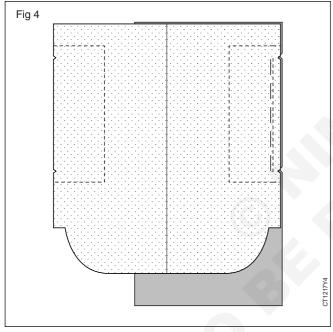
5 Shape pocket pouch

0-1 = 22 cm pouch length 1-2 = 1-3 = 5 cm 2-4 = 1.5 cm Cut on the marked lines (Fig 3) Shape round 6 Cut on the marked lines Cut notches from top (i.e. point 0) and 5 cm from lower corner (i.e. point 2) (Fig 2).

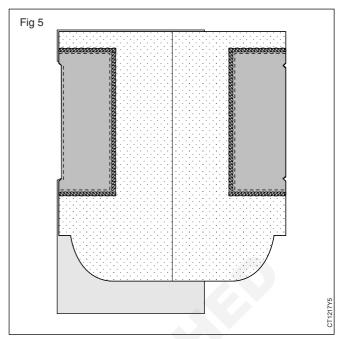


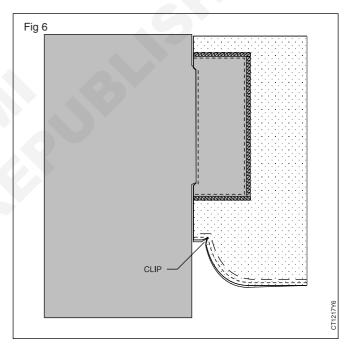
- 7 Overlock on the edges except the notched edge.
- 8 Fix stay pieces on the wrong side of the pouch piece, matching notches and raw edges on either sides. Machine stitch along the overlock. (Fig 3)
- 9 With wrong side of pouch piece and right side of casement (original piece) together match notches and edges. Baste together between notches (pocket opening) slightly away from notch depth and stitch with machine, leaving seam allowance of 8 mm from the edge. (Lock both ends of seam by knotting thread ends.) (Fig 4)





- 10 Turn the pocket pouch on the wrong side of the original cloth. Seam pushing the edge by 2 mm inside and press. Make top stitch on the right side between the notches 8 mm away from the edge. Finish both sides. (Fig 5)
- 11 Fold the pocket pouch lengthwise bringing out wrong side. Match lower round edges, baste and stitch with machine 0.75 cm away from the edge making pivot at the upper end of round shape. Clip the corner and remove basting. (Fig 6)
- 12 Turn the pocket pouch, right side out. Set the seam in centre. Make top stitch 0.75 cm away from the edge. Place both original pieces one over the other with right sides together, match the notches and raw edges from top to bottom.

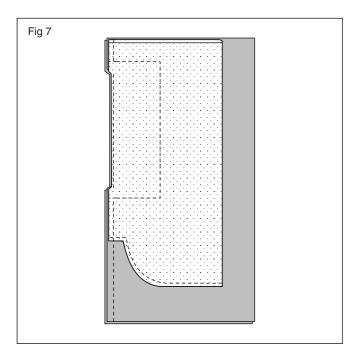


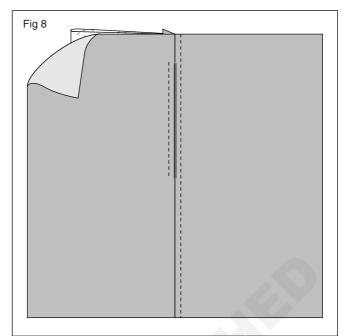


13 Tack the loose raw edge of the pocket pouch close to the pocket mouth along with the raw edges of original cloth and baste. Stitch by machine leaving 1 cm seam allowance from top to bottom.

(Take care that the pocket is not caught by the seam (Fig 7)

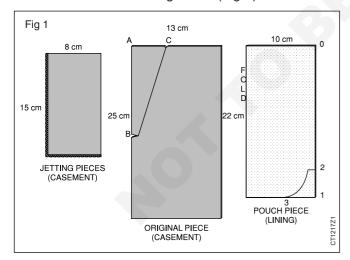
14 Bring out the right sides of original cloth. Press the seam allowance away from pocket mouth. Make top seam on the seam allowance side, 2 mm away from the previous seam line. (Fig 8)





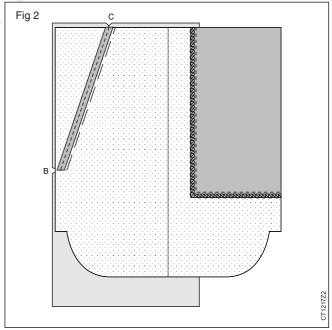
TASK 4: Prepare a slant pocket

1 Take one jetting piece (15 x 8 cm), overlock one long and one short edge. (Fig 1) Take two pieces of casement (25 x 13 cm) and mark point A at left upper corner of the original/ piece on wrong side of the cloth. Mark a point B, 13 cm from A on the lower side and C, 5 cm from A on the upper edge. Cut notch by 1 cm on point B and small notch on point C. Join C and B (line should be drawn from the depth of notch at B to C). Trace the mark with tracing wheel to right side of cloth. (Fig 1) Draft and cut pocket pouch from lining material follow the instructions given in (Fig 1)



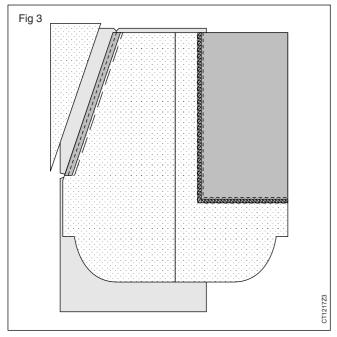
2 Place the pocket pouch on the original piece. With right side of pocket pouch and wrong side of original material together match side edges.

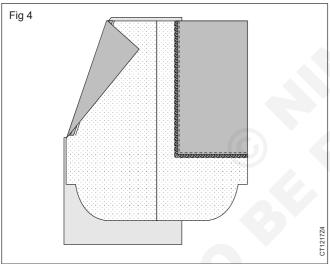
3 Baste both the pieces together from right side slightly away from the mark line BC. Cut a tape of thin cloth on straight grain (13 cm x 1 cm). (Woven tape/selvage of cloth can also be used.) Place the tape edge along the basting line on wrong side of the pocket pouch and stitch along the center of the tape. Place jetting piece on the other side of pouch piece with right sides together and raw edges matching at top and side. Baste and stitch along the overlocked edges. (Fig 2)



4 Cut off the pocket pouch cloth along the outer edge of tape. (Fig 3)

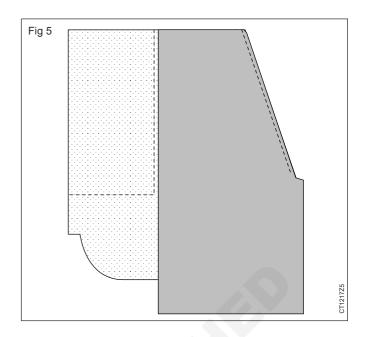
5 Fold the triangular portion of original cloth on mark towards wrong side on pouch piece and iron gently. (Fig 4)

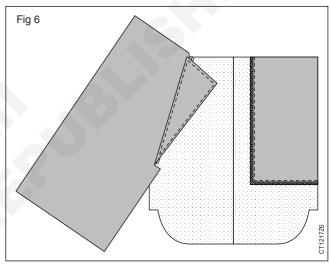


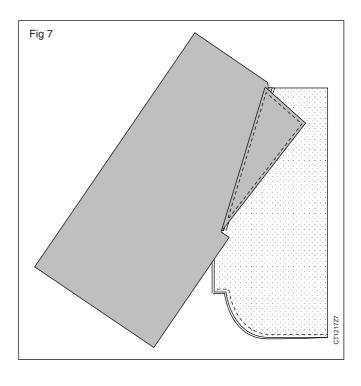


- 6 Turn pocket and original cloth together with right sides upwards. Make a top stitch from right side, 0.75 cm away from the folded edge. (Fig 5)
- 7 Unfold original cloth and pocket pouch. Turn the raw edge of the original piece which forms a triangle inside by 0.5 cm and stitch with the pocket pouch. (Fig 6)
- 8 Fold the pouch piece lengthwise with right sides together and matching the round shape. Stitch the edge. (Ref.SS.No.3) (Fig 7)
- 9 Turn the pocket pouch right side out and set the seam in center. Place the pocket mouth flat over the jetting piece matching side and top edges of pocket pouch and original piece.

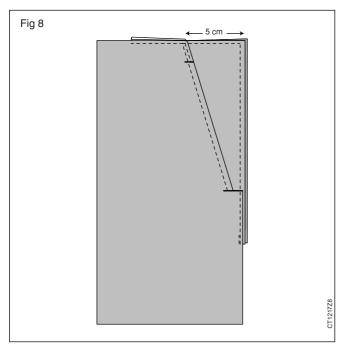
Take care that the top slant line of the pocket edge is placed 5 cm away from the top corner of jetting piece.



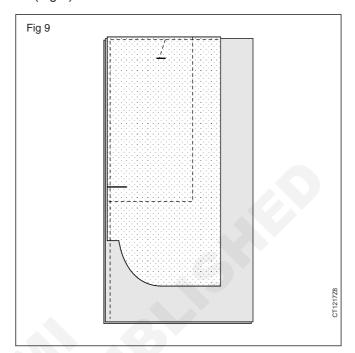




10 Baste side length of the original piece along with the jetting and pocket pouch below the pocket mouth and stitch on the top of pocket slant line 2 mm away from the folded edge upto 2 cm below the top edge and make firm tacking. (Fig 8)



- 11 Take the other piece of the original cloth, place one over the other with right sides together, pocket pouch upwards.
- 12 Stitch side seam leaving 1 cm seam allowance. (Fig 9)



Apparel Exercise 1.4.29

Sewing Technology - Garment Part Construction

Samples of making collars

Objectives: At the end of this exercise you shall be able to

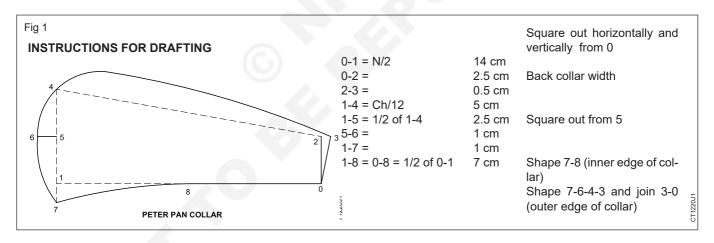
- prepare a peter-pan collar
- stitch open collar (rolled collar)
- stitch and fuse a mandarin (stand) collar
- · stitch a shirt collar with stand.

Requirements			
Dress maker pin	- 1 No. - 1 No. - 1 Box - 1 No. - 1 No.	MaterialsPoplinInterliningThread	- 0.40 x 0.90 m - 0.40 x 0.40 cm - 1 No.

PROCEDURE

TASK 1: Prepare a peter-pan collar

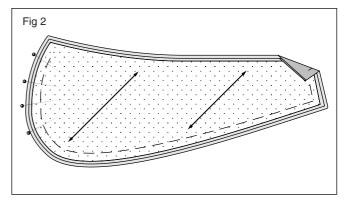
- 1 This collar is made of two separate collar units: for left and right side of the neck.
- 2 Prepare a paper pattern according to the draft and instructions. (Fig 1)



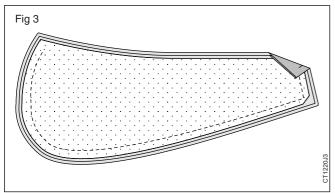
- 3 Prepare a master pattern leaving 0.75 cm all around.
- 4 Lay the pattern on a cloth matching bias grains and cut three pieces from it. One piece is upper collar, one is under collar and one serves as interlining. Mark the three pieces.
- 5 With right sides together place under collar over upper collar. Place the interlining piece over upper collar. Match the corners of all the layers. Pin and baste through all three layers. (Fig 2)

Fusing or interlining is always attached with upper collar.

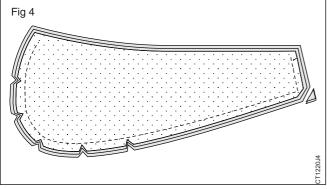
6 Trim out the corner of interlining piece only.



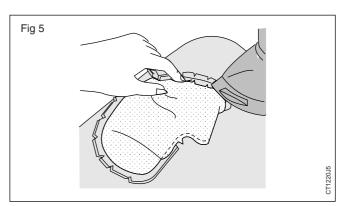
7 Stitch along outer seam line maintaining the shape of curved shape and corner and leaving neck edge open. (Fig 3)

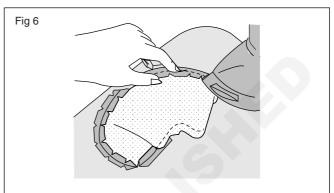


8 Trim the corner and clip fullness in seam allowance of curved shape. (Fig 4)



- 9 Press all seams open. (Fig 5)
- 10 Then press them towards the underside of collar. (Fig 6)

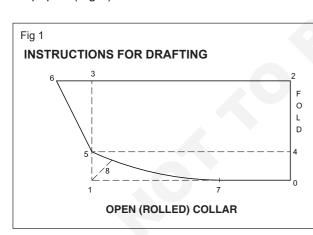




11 Turn the collar unit with right side out. Bring seamline to under collar side and fix with diagonal basting. Then press.

TASK 2: Stitch open collar (rolled collar)

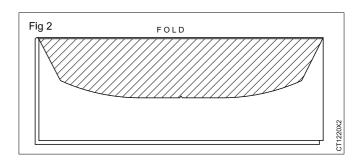
1 Prepare a paper pattern according to draft and instructions for drafting on double layered brown paper. (Fig 1)



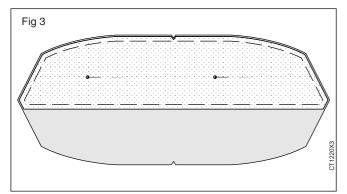
Square out horizontally and vertically from 0

0-1 = N/2 0-2 = 1-3 =	14 cm	Square up from 0 and 1
Ch/12 + 2 cm = 0-4 = 1-5 3-6 = 0-7 = Ch/12 + 1 cm	7 cm 2 cm 2.5 cm 6 cm	Join 2-3 Join 4-5 Join 5-6 Divide angle 5-1-7
1-8 =	2 cm	Shape 0-7-8-5

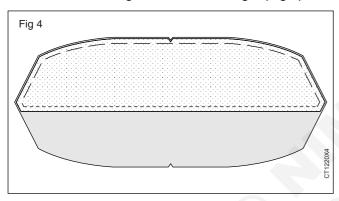
2 Give 0.75 cm seam allowance on sides and lower edge. Cut the master pattern. Set balance marks on the centre of shaped edge. Lay the pattern on double layered sample cloth, mark and cut on the outlines. Transfer and cut balance marks. (Fig 2)



3 Cut the interlining material with the help of the pattern but extend horizontal centre line by 1 cm. Cut balance mark on the centre of shaped edge. Pin interling on the wrong side of collar piece, balance marks and centre lines matching. Baste all around the interlining piece. (Fig 3)

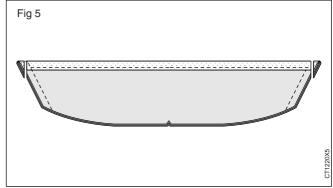


4 Stitch the interlining to the collar piece below the centre line leaving 2 mm from the edge. (Fig 4)

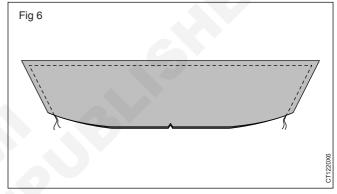


5 Fold collar piece with interlining on centre line with right sides of collar together. Stitch on the sides

leaving 0.75 cm from edges. Trim off the corners, take care not to cut the seam line. (Fig 5)



Turn the collar piece so that the right side is out. Use bodkin to pull out corners neatly. Top stitch from upper side of the collar on the three edges leaving 0.5 cm. (Fig 6)

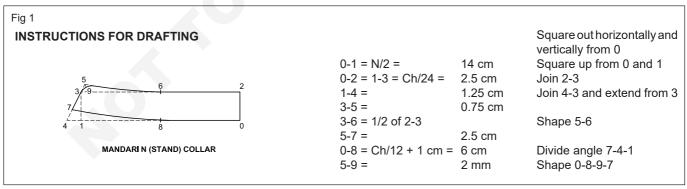


7 The notch in the lower edge of unfolded collar piece will later serve as balance mark for attaching collar to the neck.

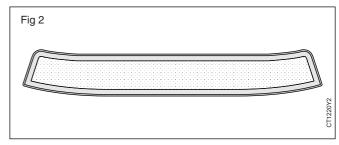
TASK 3: Stitch and fuse a mandarin (stand) collar

1 Prepare a paper pattern according to the draft and instructions. Cut the pattern (Fig 1).

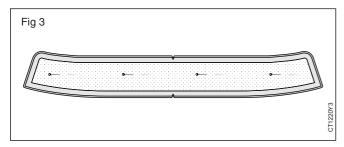
2 Transfer the pattern on fusible interlining and cut it on the outer lines without giving any allowances.



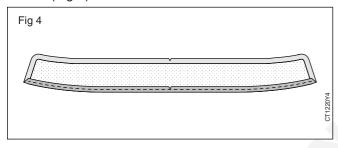
- 3 Lay this fusing piece over sample on wrong side of material (already cut to nearly same size). Match the grains. Pin and baste it.
- 4 Remove pins and fuse the interlining with iron. Cut the fabric leaving 0.75 cm seam allowance all around the fusing piece. (Fig 2)



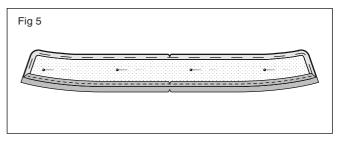
- 5 Place this fused piece of collar over another piece of sample cloth matching grains and right sides together. Pin it and cut the excess material of under collar leaving also 0.75 cm seam allowance along the shape of fusing.
- 6 Cut balance marks in centre of upper and lower edge of collar. (Fig 3)



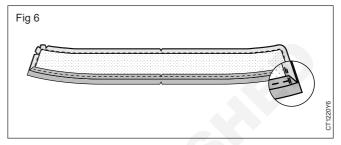
7 Remove the pins. Remove also under collar piece. Take the fused piece (upper collar) and turn the seam allowance of lower edge of cloth over the fusing. Baste and topstitch from right side at a distance of 0.5 cm. (Fig 4)



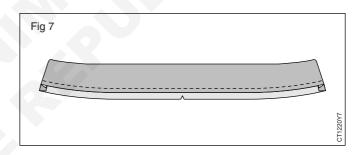
8 Place this fused piece on the upper edge of under collar, matching grains and balance marks. Pin and baste. (Fig 5)



9 Stitch along the three edges 1 mm away from fusing through all layers. Stitch over turned lower edge but don't stitch over seam allowance of under collar piece. Leave 2 mm at the ends. Lock seam. (Fig 6)



- 10 Cut notches on shaped corners.
- 11 Press open the seam, then press seam allowances towards the under collar.
- 12 Turn the collar with right side out, pull out the corners neatly and press. (Fig 7)

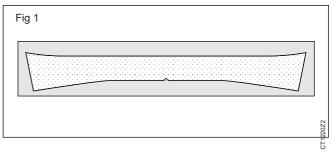


TASK 4: Stitch a shirt collar with stand

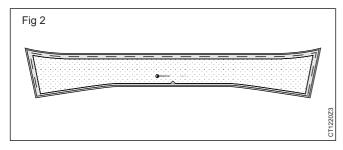
1 Prepare a paper pattern according to the draft and instructions. Give seam allowance of 0.75 cm only on the lower edge of collar part (line 2-7). Cut the pattern.

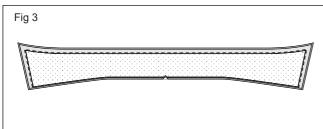
By cutting on 2-10-14-7 make 2 separate pieces of collar and band.

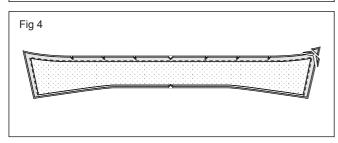
- 3 Transfer the pattern of collar and stand part on fusible interlining and cut it on the outer lines.
- 4 Cut sample cloth according to pattern but give approximately 1 cm tolerance all around.
- 5 Lay the fusing piece over sample cloth on the wrong side of material along the grains. Pin and baste it.
- 6 Remove pins and fuse the interlining piece with iron. (Fig 1)
- 7 Trim the fabric leaving 0.75 cm seam allowance all around fusing, except on the lower edge of collar (allowance already added in paper pattern). Cut the pieces.



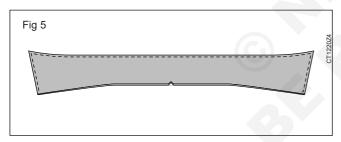
- 8 Place the fused piece of collar over the under collar of sample cloth matching grains and right sides together. Pin and baste it along the shape of fusing and cut the excess material of lower cloth leaving also 0.75 cm seam allowance. (Fig 2)
- 9 Stitch the outer edge of collar having stitch 1 mm away from fused interlining. (Fig 3)
- 10 Cut notches on upper edge and trim corners. (Fig 4)
- 11 Press open all the seams, then press seam allowances towards the under collar.



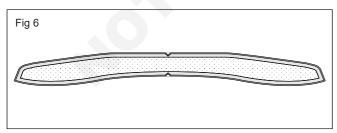




12 Turn the collar inside out. Use bodkin to pull out corners properly. Top stitch on fusing side on the upper edge and sides at a distance of 0.5 cm. Cut balance marks in centre of lower edge. (Fig 5)

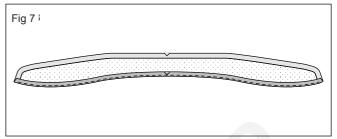


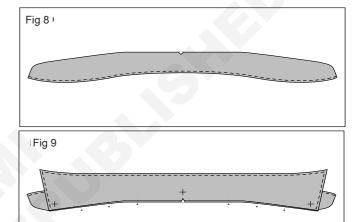
13 Transfer pattern of stand part on fusing material and cut without leaving any seam allowance. Repeat the same process for stand as earlier for the collar part until you have cut both sample pieces of cloth. Cut balance marks at the centre of upper and lower edge. (Fig 6)



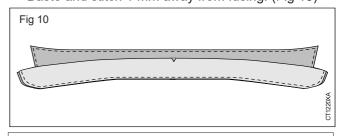
- 14 Remove the basting. Remove also the lower stand piece. Take fused piece and turn the seam allowance of lower edge of cloth over the fusing. (Fig 7)
- 15 Baste and top stitch from right side a distance of 0.5 cm. (Fig 8)
- 16 Join fused stand piece and collar piece, fused fabric sides together. Place the collar flat on stand piece.

17 Tack first on centre balance marks, then adjust the collar on one side, edges of seam allowances matching. In this procedure you have to bend the collar to adjust the seam allowances. Pin along the seam allowances. Repeat the process on the other side. Take care that both extensions of stand piece are equal. Baste and remove the pins. (Fig 9)



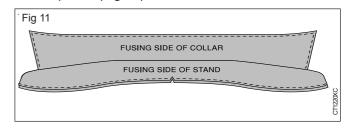


18 Place unfused stand piece over the underside of collar matching balance marks and the shape of fused stand piece. Take care that the edges of seam allowances are matching. Collar piece is now in between the two stand pieces - unfused stand piece is extending the fused stand piece on unfixed edge. Baste and stitch 1 mm away from fusing. (Fig 10)



Don't stitch over seam allowance of lower stand piece. Leave 2 mm at the ends.

19 Remove basting and turn stand pieces down. Finish and press. (Fig 11)



Apparel Exercise 1.4.30

Sewing Technology - Garment Part Construction

Samples of making sleeves

Objectives: At the end of this exercise you shall be able to

- make a sample of plain sleeve
- make a sample of bell sleeve
- make a sample of bishop sleeve
- · make a sample of puff sleeve
- · make a sample of leg o' mutton sleeve.

Requirements

Tools / Equipments

- Single needle lock stitch machine 1 No.
- Scissors 1 No.
- Hand needle 1 No.
- Ball pin 1 Box

Materials

- · Long cloth or poplin
- · Sewing thread

- 1 m
- 1 m

PROCEDURE

TASK 1: Make sample of plain sleeve

1 Draft the plain sleeve and cut in the fabric.

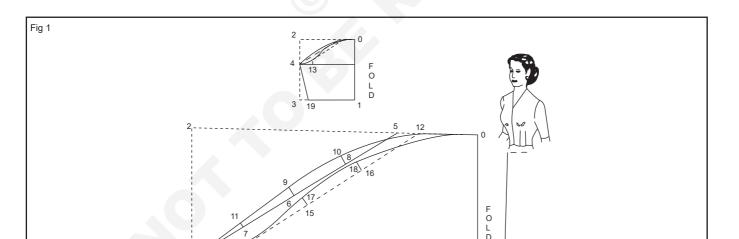
Measurements

Material

Sleeve length = 14 cm

Poplin

Chest = 60 cm

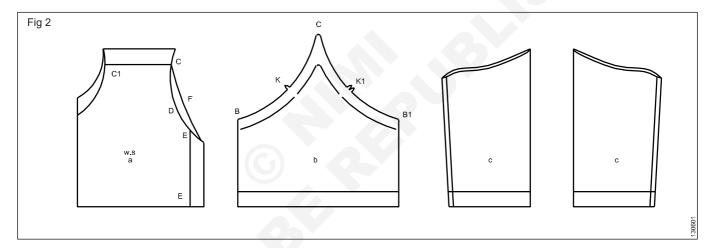


Sleeve 0-1 = SL	Square out horizontally and vertically from 0
0-2 = Ch/4 - 1 cm	Square down from 2 and mark
2-4 =Ch/12 + 1.5 cm	3
0-5 = Ch/12 - 1 cm	Join 4-5
	Divide 4-5 into form equal
	parts and mark 6,7 and 8
7-11 = 0.3 cm	Square up from 7
6-9 = 0.5 cm	Square up from 6
	Square up from 8
8-10 = 0.5 cm	Shape 4-11-9-10-0 (back
5-12 = 1 cm	shape of sleeve)
4-13 = 3 cm	Square up from 13

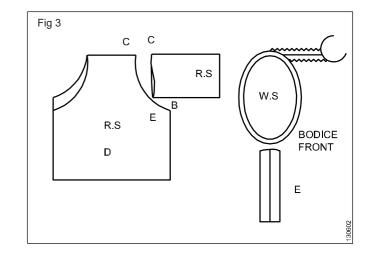
13-14 = 1 cm	J oin 12 and 14
	Divide 12 -14 in 3 equal
	parts and mark 15 and 16
	Square up from 15 and 16
15-17 = 16-18 = 0.5 cm	Shape 4-14-17-18 and 0
	(front shape of sleeve)
3-19 = 2.5 cm	Join 4 and 19

The shape of sleeve crowns proportionately will be the same in all the Garments stitched. The exact measurement given shall help you to shape the crown initially, but also try to draw the shape free hand for practice.

- 2 Stitch the shoulder seams and side seams. It is necessary to adjust the size of the sleeve cap seam line according to the armhole explained below. Stitch around top to sleeve on the seam line (Fig 2).
- 3 Use firm machine stitch from under arm to first notch (k) change to large stitch between notches (K to K1) and then be to firm K1 to under arm point (B1). Draw up the loose stitches so that the sleeve cap seam line measured ¼ more than the armhole of the bodies section. Distribute the fullness evenly so that no gather is visible.



- 4 Hem the lower edge of the sleeve.
- 5 Stitch the side seams of the sleeves making sure that you are not making two sleeves for the same arm then attach the sleeve to the armhole. With the sleeve and garment right side out, hold the sleeve next to the bodice as shown in Fig. 3.
- 6 Hold the seam edges together out under arm and turn the bodice wrong side out as shown in fig.2. pin the sleeve to the armhole matching the under arm seams and centre point (c) on sleeve to shoulder arm. Now stitch the sleeve to the armhole. The seam allowance is turned toward the sleeve at the top and is left turned up at the under arm.



TASK 2: Make sample of bell sleeve

1 Draft the bell sleeve and cut in the fabric.

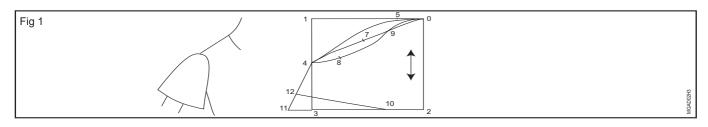
Measurements

Material

Sleeve length = 14 cm

Poplin

Bust = 60 cm



0 - 1 = 1/8 chest

0 - 2 = sleeve length

3 is square down from 2

1 - 4 = 1/8 Chest +1.5 cm

0 - 5 = 2 - 5 cm

Join 4 – 5

6 is mid-way of 4-5

6 - 7 = 2cm

Shape back side 4 - 75 - 0

Square up from 4 – 8

4 - 8 = 5cm Join 8 - 5

Take 1cm above point 4

Shape front-side 4 - 8 - 9 - 0

2 - 10 = 5cm

3 - 11 = 2.5cm to 5cm

Join 11 - 4

11 - 12 = about 2.5cm

shape 12 - 10

- 2 Join the sleeve to the armhole after matching centre of sleeve to centre of shoulder point.
- 3 Finish the lower hem of the sleeve

The sleeve bottom is finished with narrow hem or with shaped facing. Join side seam

TASK 3: Make sample of bishop sleeve

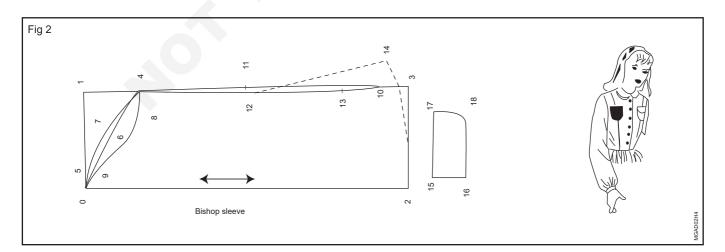
1 Draft the bell sleeve and cut in the fabric.

Measurements

Sleeve length = 58 cm

Chest = 80 cm

Cuff = 5 cm



0 - 1 = One - eight bust + 6.5cm

0-2 = Sleeve length + 2cm for fullness less Cuff-width

For points 3 to 9, so

2 - 3 =Same as 1 - 0. Join 3 - 1

1 - 4 = B/8

0-5 = 2.5cm 6 is mid -way of 4-5

6 - 7 = 2 cm

Shape back-side 4 - 7 - 5 - 0

Square up from 4 - 8

4 - 8 = 5cm for ladies and

4cm for girls garments
Join 8 – 5 Taking 1 cm above

10 - 3 = 2cm

- 2 Join the sleeve to the armhole after matching centre of sleeve to centre of shoulder point.
- 3 Finish the lower hem of the sleeve.

Shape 10 - 2

11 is midway of 10 - 4

12 11 = 1.5cm

Shape 4 - 12 and 12 -10

10 - 13 = B/8 + 1.5cm for opening

If more fullness at the bottom is required, add 12 – 14

10 as shown.

Cuff: - Proportion for cloth,

Not canvas. Square line from 15, fold at 16 – 15

16 - 15 = Cuff width + 1.5cm

 $17 - 15 = \frac{1}{2}$ Cuff width + 1.5cm

18 - 17 =same as 16 - 15

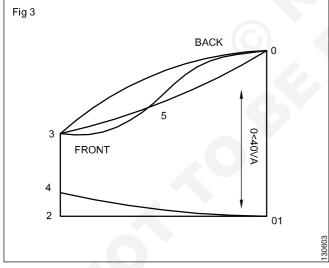
Join 18 - 16

If required, take a curve at 18

4 Join side seam

TASK 4: Make sample of puff sleeve

1 Draft the puff sleeve and cut in the fabric.



Puff sleeve

0 - 1 = The sleeve length + $6\frac{1}{2}$ cm for the puff

 $1 - 2 = \frac{1}{4}$ Chest + $3\frac{3}{4}$ cm

 $2 - 3 = \text{Half of } 1 - 2 \text{ less } \frac{3}{4} \text{ cm}$

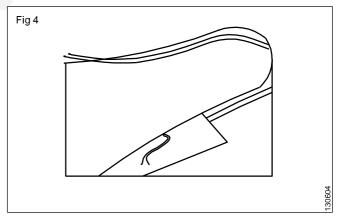
Join 3 & 0 with a straight line

 $4 - 2 = 2 \frac{1}{2}$ cm

5 - 3 =One third of 4 - 0

2 Make two rows of ease stitches at upper sleeve shape. 2. 1st at a distance of 0.5cm, 2nd at a distance

of 0.75cm. 3. Start stitches 5-6 cm from raw edge and stop also 5-6 cm before the other edge. leave long threads. Stitch sleeve side seam. Pin the centre of sleeve crown.



- 3 Stitch sleeve side seam pin the centre of sleeve crown on shoulder, with right sides together and leaving seam allow.
- 4 Gather on sleeve crown 3 cm. on both sides of shoulder seam while pulling the long thread ends from both sides
- 5 Pull until the girth of sleeve is equal with the girth of armhole
- 6 Baste sleeves to bodice armhole then stitch with machine.

TASK 5: Make sample of leg o' mutton sleeve

1 Draft the leg o' mutton sleeve and cut in the fabric.

Measurements

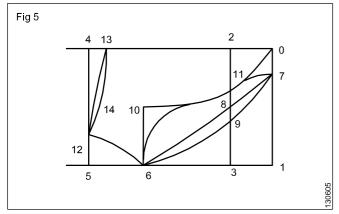
Material

Sleeve length = 12.5 cm

Poplin - 17 cm

Chest = 60 cm

Sleeve pound = 18 cm



0 - 1 = 1/8 chest + 6.5 cm + 1.5 cm for looseness

0-2=6.5 to 10 cm according to gathers at the top

3 - 1 = Same 2 - 0

4 - 2 = Sleeve length + 1.5 cm

5 - 3 = Same 4 - 2 join 4 - 5

6 - 3 = 1/8 chest

7 - 0 = 4 cm

Shape 6 - 9 - 7 - 0 and 6 - 10 - 11 - 0

12 - 5 = 2.5 cm join 6 - 12

13 - 4 = 2.5 cm

join and shape 12 - 13

 $14 - 13 = \frac{1}{2}$ sleeve round + 1.5 cm

Suprpess the distance 10 - 12 in the dart at 13. Keep 2 cm inlays at 12 - 6.

- 2 Stitch the side seam and shoulder seam of the bodies.
- 3 Set the sewing machine for long stitches at by adjusting the stitch regulator
- 4 Work a row of large machine stitches at the top of the sleeve edges.
- 5 Prepare pull the formed stitches at both ends to farm gathers.
- 6 Sleeve bottom 3 or 5 darks are stitch
- 7 Prepare a bias strip to the required length of the sleeve round and the width of 2 cm.
- 8 Keep the right side of the bias piece to the right side of the lower edge of the sleeve and give machine stitch.
- 9 Make 5 cm fold on the other side of the bias band and bring the folded edge over to the wrong side of the sleeve, just covering the row of large running stitch.
- 10 Hem the folded edge of the sleeve on the wrong side.
- 11 Measure the armhole and sleeve round, stitch the side seam of the sleeve.

Apparel Exercise 1.4.31

Sewing Technology - Garment Part Construction

Practice of fixing fasterness as buttons, hooks, eyes press studs

Objectives: At the end of this exercise you shall be able to

- · attach sew through buttons by hand
- · attach a sew through button and to form a shank
- attach press studs
- attach metal hooks and to prepare an eye bar from thread.

Requirements			
Tools/ Equipments		Materials	
Hand needleScissors	- 1 No. - 1 No.	Long clothSewing threadButtons (4 holes)Press studsMetal hooks	- 0.30 x 0.90 m - 1 spool - 6 Nos. - 8 Nos. - 8 Nos.

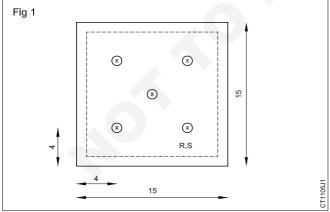
PROCEDURE

TASK 1: Attach sew-through buttons by hand

- 1 Take a piece of Long cloth (30 cm x 90 cm) mark and cut it into 12 square pieces of 15 x 15 cm, i.e. 6 widthwise and 2 lengthwise.
- 2 Take 2 pieces, place one over the other and stitch all around by machine leaving 1 cm from the edge.
- 3 Insert single thread into the needle.

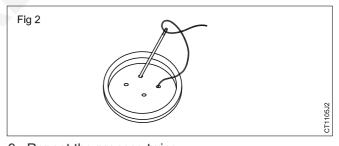
Don't knot at any end of the thread.

4 Set 5 marks on cloth, one in centre, the other four grouped around at a distance of 4 cm away from the edge. (Fig 1)

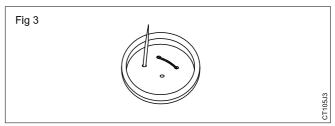


- 5 Hold the fabric by left hand and insert the needle from right side of the fabric at mark, right angled to the fabric. Pull the needle with thread leaving 1 cm thread at the right side.
- 6 To secure thread make stab stitch: hold the thread end with left hand thumb and insert the needle into the fabric very near (i.e. 1 mm) to the 1st insertion from wrong side.

- 7 Repeat the last two steps. Cut loose thread end from the upper side. Centre the button upon the mark directly on the stab stitch.
- 8 Bring needle through the button from one hole and back into the fabric by other hole and pull the thread. (Fig 2)

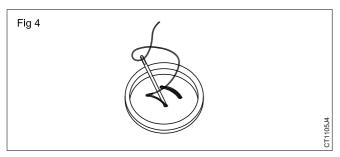


- 9 Repeat the process twice.
- 10 Bring the needle from the underside of the fabric through the remaining holes of the button. (Fig 3)



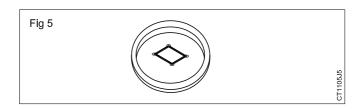
- 11 Then bring back into the fabric through the other hole left. (Fig 4)
- 12 Repeat the step four more times.
- 13 To secure the thread, insert the needle into the thread of the last stitch below the fabric, leave a loop, pass the needle through the loop and pull the thread. Repeat the process one more time.

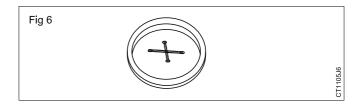
14 Fix another button on a mark on the cloth in the same way.



15 Attach 2 buttons in square shape. (Fig 5)

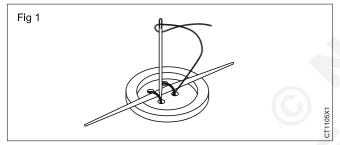
16 Attach 1 button crosswise. (Fig 6)





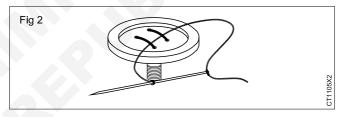
TASK 2: Attach a sew-through button and to form a shank

- 1 Take another 2 pieces (15 x 15 cm) and stitch all around with machine. Set 5 marks (Task 1).
- 2 Secure the thread as described (Task 1).
- 3 Bring needle through the button from one hole.
- 4 Lay a pin/toothpick/match-stick above the button, stitch across top of the pin from underside through one hole and take needle down to other hole. (Fig 1)



5 Repeat two or more times.

- 6 Bring the needle up from the remaining hole of the button and back into the fabric by the opposite hole.
- 7 Repeat two or more times.
- 8 Remove pin or stick and lift button away from the fabric, so stitches are taut.
- 9 Wind thread firmly under the stitched button thread to make shank. (Fig 2)

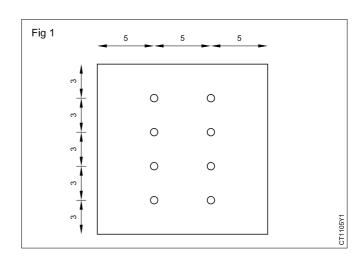


10 Secure the thread with a stitch into the shank, form a loop and pass the needle through it. Tighten the thread.

TASK 3: Attach press studs

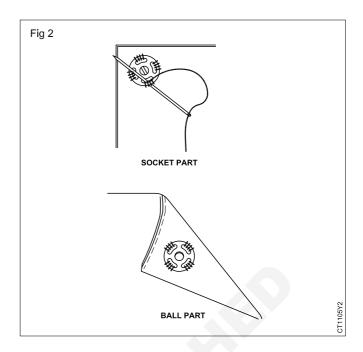
- 1 Take 4 pieces of cloth (15 x 15 cm) machine stitch 2 pieces together so that you get 2 sets. Mark position for fixing ball parts on one and socket parts on another set. (Fig 1)
- 2 Thread the needle with a double thread (both cutted ends are passed through the needle eye). To secure thread, insert the needle in the cloth downwards on the marking, bring out the needle upwards at a distance of 2 mm, pull the thread partly and pass the needle through the loop at the end of the thread.
- 3 Fill one hole of the ball part by four buttonhole stitches with double thread. Pass the needle between button and fabric to the next hole beside.

In case of double layered cloth you can also pass the needle between the two layers of the fabric.



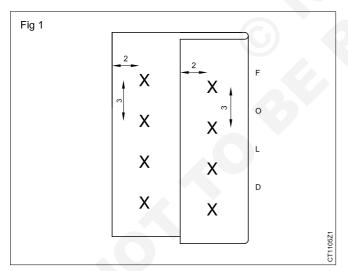
- 4 Fill the other holes of the ball part in the same manner. (Fig 2)
- 5 Secure the thread from the underside of the cloth with back stitch and cut. Take the other set of cloth. Place socket parts of stud over the mark and stitch in the same way as the ball part.

Take care that the stitching areas of the socket and ball part are not covering each other, otherwise press studs will open easily.



TASK 4: Attach metal hooks and to prepare an eye bar from thread

- 1 Take 2 pieces of cloth (15 x 15 cm) and prepare double layered set.
- 2 Set 4 marks for attaching eye bars at a distance of 3 cm from the left edge of the cloth and for hooks at a distance of 3 cm from the right edge on reverse, i.e. the underside of the fabric. (Fig 1)

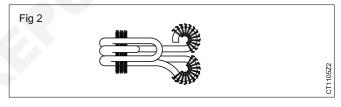


3 Secure the double thread at one of left marks by stab stitch (or by loop). Place hook over the mark.

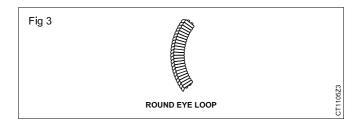
Take care for the right direction of hook and eye bar, so that the cloth forms a tube after closing the fastners.

4 Fill both the holes of the hook by 5 to 9 button hole stitches in each hole.

5 Pass needle and thread buttonhole through the fabric to the neck of the hook and make three stitches around the end of the hook neck to hold it flat on the fabric. (Fig 2)



6 Secure and cut the loose threads - eye bar. To make a thread-eye-bar, mark two points in the total length of the eye (0.5 cm) centered over one mark. Insert the double threaded needle at one mark, secure thread and bring it from the underside of the fabric to the other mark. Take the needle to the first mark from the upper side of the cloth, and repeat three times. Cover all the strands of thread on the upper side of the cloth with closely spaced buttonhole stitches. When finished, bring the needle and thread to the underside of the cloth and secure stitches. (Fig 3)



Sewing Technology - Garment Part Construction

Practice of making button holes by hand

Objectives: At the end of this exercise you shall be able to

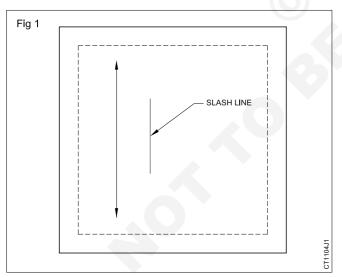
- · prepare one-bar-one fan button hole by hand
- · prepare a corded key hole button hole by hand
- · prepare a bound button hole by hand
- cut and stitch shirt/ pant button holes by zig zag machine.

- 1 No.	 Scissors 	- 1 No.
	Materials	
- 1 No	 Thread 	- as required
	 Fabric 	- as required
- 1 No.		
	- 1 No. - 1 No.	Materials - 1 No 1 No 1 No.

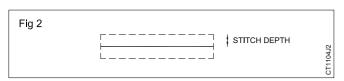
PROCEDURE

TASK 1: Prepare one-bar-one fan button hole by hand

1 Take 2 pieces of 15 x 15 cm. Cover one by the other congruently in warp direction with wrong sides together and stitch around with machine leaving 1 cm seam allowances from all edges. For marking position of buttonhole, draw a line of 15 mm with pencil at the centre of the stitched piece in warp direction. This line is called slash line. (Fig 1)



2 Place a row of machine stitches around the slash line (2mm away from slash line). (Fig 2)

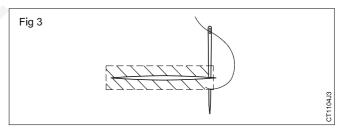


Machine stitches must be approx. 6 stitches per 1 cm.

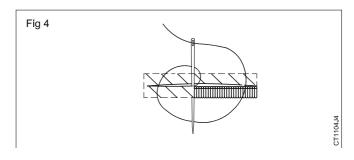
3 Set the buttonhole scissor according to the buttonhole, then cut along the slash line with buttonhole scissors using one thread of fabric as a guide.

Scissors must be sharp and pointed.

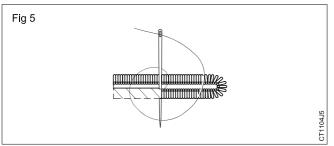
4 Overcast the raw edges of the slit by hand with single thread, keeping 3 stitches per cm and length of 2 mm. (Fig 3)



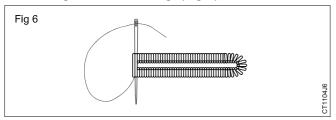
5 Hold the fabric by left hand and start filling the overcasted edge from one end by buttonhole stitches covering the machine stitched line. Take the stitches close side by side at a regular distance maintaining even tension in each stitch. (Take suitable thick thread or twisted double thread.) (Fig 4)



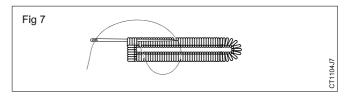
6 At the outer end spread, 5 to 7 stitches in fan shape. (Fig 5)



7 Fill the remaining cut by buttonhole stitches. On the end make two stitches taking full width of both worked out edges for bar tacking. (Fig 6)



8 Fill bar tack stitches by buttonhole stitches. (Fig 7)



While filling bar tacks with buttonhole stitches, the needle should catch one thread of the previous buttonhole stitches of either side.

9 Dip the needle in the end of the bar tack to the under side of the cloth and make two locking stitches catching bar tack thread and few threads of cloth. Trim the thread. Repeat the process for practice and perfection.

After you have gained perfection there is no need of setting a stitch line around the slash line.

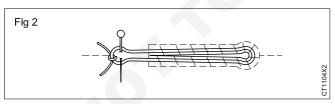
TASK 2: Prepare a corded key bole button hole by hand

Take two pieces of cloth 15 x 15 cm.

1 Mark the buttonhole position at the centre of the piece. Punch a hole of approx. 2 mm diameter with a stiletto at the right end of marking. Machine stitch around the buttonhole mark, 2 mm away from the slash line and the hole. Cut on the marking with scissors upto the end of mark. (Fig 1)



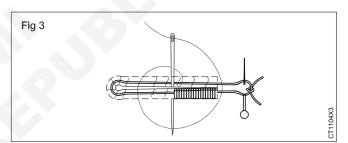
2 Use a length of cord to fit loosely around the buttonhole, knot it at the ends and secure with pin. Overcast over the cord. Keep the cord within 2 mm from the slashed edge. (Fig 2)

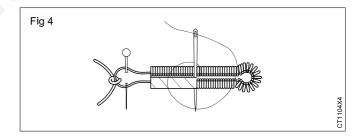


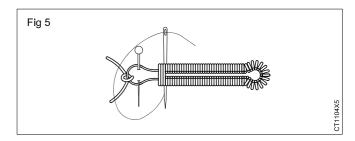
- 3 Turn the fabric so that you start to work out the buttonhole from right lower side. (Fig 3)
- 4 Workout the buttonhole in the similar process of onefan-one-bar buttonhole covering the cord and maintain the straight edge of cut and the round of hole. (Fig 4)
- 5 Make bar tack in the end. (Fig 5)

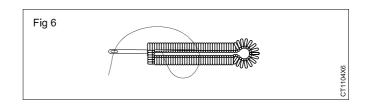
Hold both ends of the cord, remove the pin, pull slightly and cut off the excess cord, before filling the bar tacks. (Fig 6)

6 Repeat the process for practice and perfection.









Sewing Technology - Garment Part Construction

Practicing darning and patching

Objectives: At the end of this exercise you shall be able to

- · darn a hear and a hole
- stitch a plain patch, a hemmed patch and a decorative patch.

Requirements

Tools/ Equipments / Machines

- Single needle lock stitch machine
- · Darning needle
- Hand needle
- Scissors

- 1 No.
- 1 No.
- 1 No.

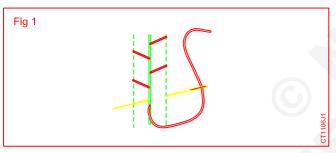
Materials

- Worn out garments
- Patcher

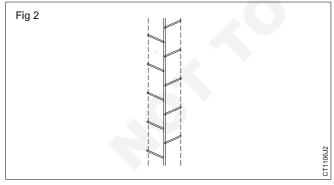
PROCEDURE

TASK 1: Darn a hear and a hole

- 1 **Straight cut/tear:** Study the weave of the fabric and the cut position carefully.
- 2 Mark lines all around the cut keeping equal distance (appr.0.5 cm 1 cm) on all sides. Use marks as a guidance for darning. (Fig 1)



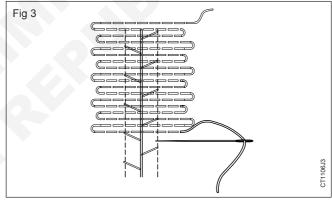
3 Draw both edges of the cut together with open fish bone stitch. (Fig 2)



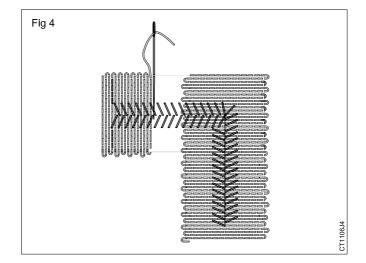
- 4 On the wrong side, start to darn on marks rectangular to the cut.
- 5 Use the darning needle and if possible use thread from same fabric. Draw threads from the underside of the garment (hem or facing etc.).

For best results, use warp thread if you darn in warp direction and weft thread if you darn in weft direction.

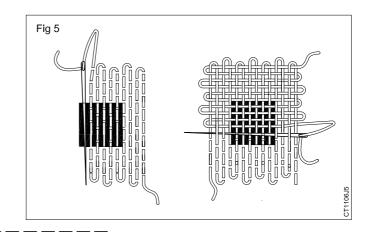
6 Darn according to the weave of the fabric (one thread up and one thread down). Leave loops at the end of the row of stitches, longer loops at each alternate row of the stitches for shrinking. (Fig 3)



7 Triangular cut: Follow the same method of straight cut. Start working on weft way first, then weave in warp direction through the previous stitches. (Fig 4) At the corner the stitches will overlap.

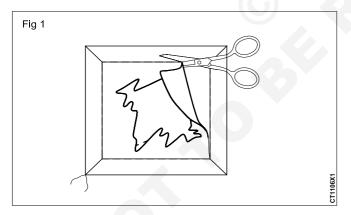


8 Darning of a hole: First trim the edges of a hole so that a rectangular shape is visible. Trim also the wornout places around the hole. The darning should extend the hole on all sides by several stitches. Now weave with alternating stitches. (Fig 5)



TASK 2: Stitch a plain patch, a hemmed patch and a decorative patch

- 1 Select a patch first. A patch should be of the same material as the garment.
- 2 If the fabric is figured, cut the patch to match the designs. If the material is to be durable, it should be of the same weight and texture as the garment.
- 3 Always cut a patch on the straight of the fabric and match the grain of the patch to the grains of the garment.
- 4 Plain patch: Independent of the shape of the hole, the patch has to be square or rectangular. Baste with rectangular or square shape around the wornout place or hole. Trim the edges around the hole matching the shape of basting and leaving 1 cm inside from basting. Clip 1 cm diagonal cuts at each corner. (Fig 1)

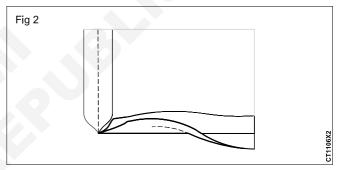


- 5 Fold back the edges (seam allowance) to the wrong side of the garment. Press flat and be careful not to stretch the edges.
- 6 Place the cut out part on the patch fabric, mark the outlines. Add 1 cm seam allowance all around, mark again and cut on the outer lines. Baste on the inner rectangular shape.
- 7 Place the patch in position with right sides of the fabric together. Keep the hole in the middle matching the basting lines on the garment and on the patch.

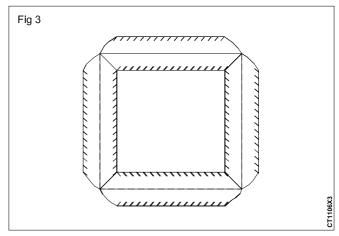
Don't forget to match the grain lines and design of the fabric.

8 Fix the patch first with basting stitches on the previous basting lines. Then stitch with back or with machine stitches close to the basting lines. (Fig 2)

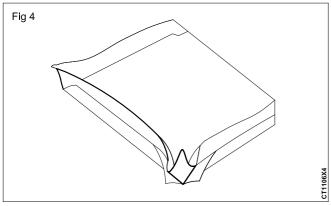
Take care to tuck the clipped corners carefully.



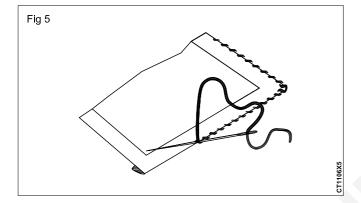
9 Press open the seam allowances and trim off the corners. Finish the seam allowance with overcasting and remove basting. (Fig 3)



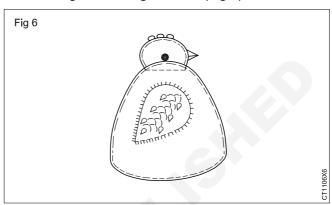
- 10 **Hemmed patch:** Apply the same procedure as for plain patch but add bigger seam allowance to the patch piece, i.e. add 1.5 cm instead of 1 cm.
- 11 Attach patch in the same way. Trim the corners of the garment seam allowance. (Fig 4)



12 Press both seam allowances flat on the garment. Turn the patch seam allowance by 0.5 cm to the underside. Baste it to the garment, then hem it with slip stitch. Remove basting. (Fig 5)



- 13 **Decorative patch:** Decorative patches are attached on the right side of the garment.
- 14 Select a colour contrasting with dress fabric. Draw a design on a paper. The shape of the design should cover the damaged portion in the dress properly. Pin the paper on the patch fabric for cutting the patch. Cut through both, paper and fabric together on the drawn shape.
- 15 Baste patch in place. Set running stitches on the outer edges of patch. Finish with close button hole stitches covering the running stitches. (Fig 6)



- 16 Trim the edges of the garment at the damaged portion from underside. Leave 1 cm seam allowance, finish it with overcasting.
- 17 Decorate the patch with embroidery stitches.

Apparel Exercise 1.5.34

Sewing Technology - Garment Construction

Stitching a ladies suit

Objectives: At the end of this exercise you shall be able to

- · calculate the material required for a churidar
- draft and cut the churidar paper pattern and master pattern.
- prepare the bias bag for layout and cut the required components.



Measurements (Medium size)

- Full length (Waist to ankle) = 105 cm
- Churi = 15 cm
- Hip = 100 cm
- Round knee = 41 cm
- Round calf = 38 cm
- Round bottom (ankle) = 30 cm

Materials and Trimmings

- 2.00 x 0.90 m Poplin/Terycot
- 2 Brown sheet

Paper Pattern Drafting

 Lay the brown sheet widthwise folded on the cutting table with its wrong side facing.

If required, attach excess brown sheet lengthwise to suit the length of churidar.

- Draw the drafting of churidar for the given measurements with the help of the instructions for drafting (Fig 1).
- Draw smooth curve joining the points 6 14 9 10 11-12 for perfect fitting.

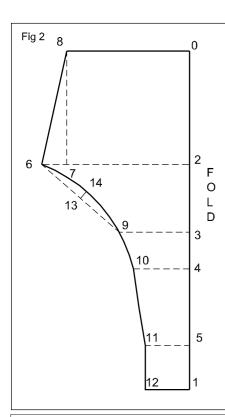
Paper Pattern Cutting

• Cut the prepared paper pattern along the following cutting lines, leaving enough space around them.

Front and Back ____ 0 - 8- 6 - 14 - 9 - 10 - 11 - 12 - 1

Master Pattern

- Lay a brown sheet and draft the master pattern from the cut paper pattern.
- Add the allowances as mentioned in the instructions for master pattern to the cut paper pattern components for seam allowances, turnings, openings etc.



PANT

0 - 1 = FL + Churi length (approx. H/6) 0 - 2 = H/3 + 5 cm 0 - 3 = ²/₃ FL - 5 cm 3 - 4 = H/8 0 - 5 = FL 2 - 6 = H/2 6 - 7 = H/12 3 - 9 = RK/2 + 1.5 cm 4 - 10 = RC/2 5 - 11 = RB/2 1 - 12 = 5 - 11

FRONT AND BACK

Square out horizontally and vertically from 0

Square out from 1,2,3,4 and 5

Square up from 7 and mark 8 Join 6-8

Join 6-9 Mark 13, 1/2 of 6-9 Square up from 13 up to 2.5 cm and mark 14 Shape 6 - 14 - 9 - 10 - 11 -12

INSTRUCTIONS FOR MASTER PATTERN

Crotch line 1.5 cm
Inside leg seam 2 cm
Fold-down casing on waist 5 cm
Bottom for hem 2 cm

Balance marks on knee line (9)

calf line (10) bottom line (11)

- Balance marks on knee line (9), calf line (10), bottom line (11)
- Cut the excess brown sheet to get the master pattern of curidar.
- Name the cut master pattern components with its descriptions for future reference.

Layout and Cutting

 Use the given measurement and estimate the material required by following the formula for calculation (width of cloth = 0.90 m).

Material required

 $= \frac{\text{Length of bag } x \text{ width of bag}}{\text{Half width of cloth}}$

- Length of bag = Full length + bottom turning + casing turning + churi
 - Width of bag = Half hip + half knee round +

two seam allowances

Cloth required =

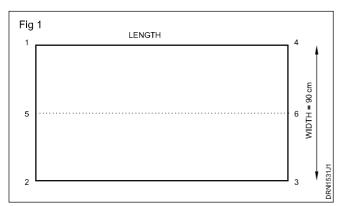
- Prepare the bias bag and layout the component mark and cut the cloth (SS No. 1)
- Fold and tie the cut components together, which are ready for stitching.

Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.5.34

Objective: This shall help you to

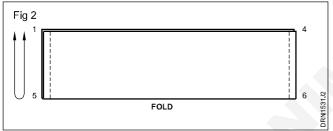
· prepare the bias bag, to layout, mark and cut the cloth.

1,2,3,4 is the material for bag. 1 - 2 is the width and 1-4 is the length of cloth. (Fig 1)



Fold the material from center in length i.e. at point 5 - 6.

By this we get the size 1,4, 6,5 (Fig 2)



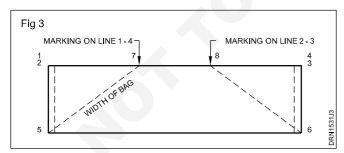
Stitch at 1 to 5 and 4 to 6, allowing 1 cm seam allowance by double stitching.

To adjust the width of bag, take

$$\frac{H}{2} + \frac{RB}{2} + 2 \text{ cm}$$

On line 1 - 4 measure from 5 and mark 7.

5-7 = width of bag (Fig 3)



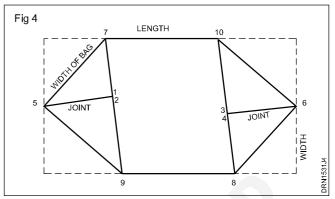
On line 2 - 3 measure from 6 and mark 8.

$$6-8=5-7$$
 =width of bag

Fold the piece at 7 and 8. (Fig 4)

After that procedure open edges are on 7 - 9 - 8 - 10. Start stitching from 10.

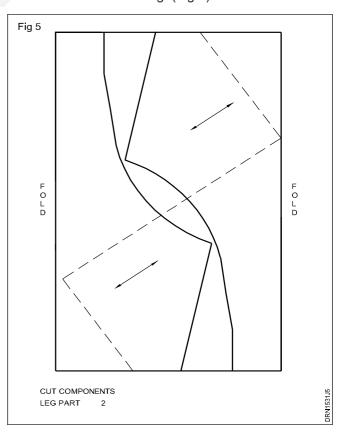
Join 10-8-9 with 10-7-9 (stitching along the selvage) Make a cut at 5 and open upto 7, i.e. on width of bag. Repeat for other end of width (6-8). Now you have prepared a cylinder.



Fold the brown paper lengthwise, cut along the outer lines of draft, so you get two copies of the pattern for layout. Mark notches for fold-down casing, bottom hem and seam allowance. Roll the cylinder and lay the pattern on bias bag in such a way that the maximum joints are placed above knee, i.e. on upper side.

To find the right placement of the cylinder you have to try: roll the cylinder and place the pattern. If the placement still is not proper try once more.

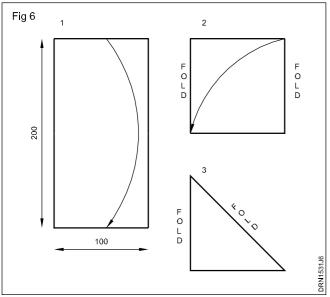
After finding the right position of cylinder make the cylinder flat, take care that no wrinkles are there. The paper pattern has to be placed in opposite direction the straight part of the pattern has to be placed at the long folded side of the bias bag. (Fig 5)



The next two graphics show another type of layout which can be used only on bigger width: the material required is $2.00 \times 1.00 \text{ m}$.

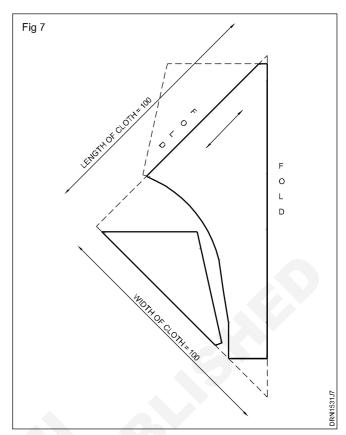
The advantage of this layout is: there are no joints in leg pieces, so it is more comfortable to wear. Leg seams also keep in position, even after several washings.

Fold the fabric twice. (Fig 6)

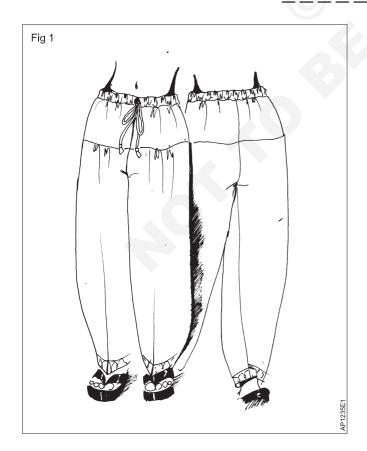


Layout as shown. (Fig 7)

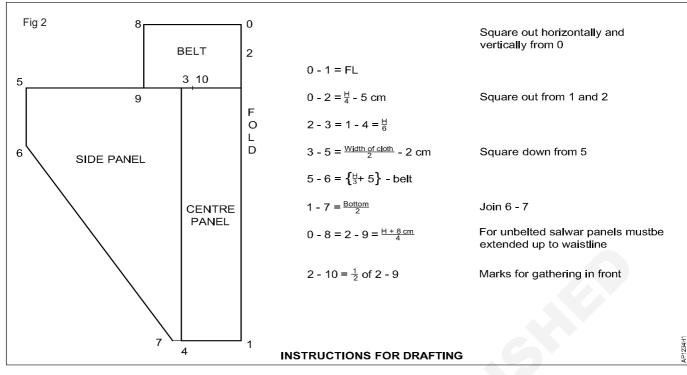
While stitching the triangular leg pieces take care to join them selvedges together and widths together.



To reduce the bulk of material on waistline, the churidhar can also be stitched with belt, similar as in Salwar.



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.5.34



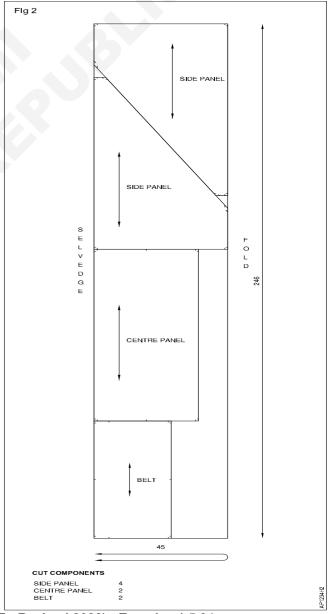
Instructions for Master Pattern

Belt waistline for fold-down casing 5 cm All other sides 1 cm

- Mark the master pattern allowances and then cut the excess brown sheet to get the master pattern of salwar with waistband.
- Name the cut pattern components for future reference.

Layout and Cutting

- Follow the given measurements and calculate the material required. (Formula: 2 length of salwar + 1 length (body rise-belt) + 8 cm for shape + 5 cm for fold down casing + 3 cm for seam).
- Lay the salwar fabric widthwise folded on the cutting table with its wrong side facing.
- Arrange the patterns of salwar components side panel, centre panel and waist band.
- Mark the outline of the layed patterns on the fabric using tailor's chalk.
- Similarly, draw required no: of components of salwar, check the pattern positions for grain lines. Remove the master pattern.
- · Mark and cut notches at centre of centre panel.
- · Cut along the marked lines with sharp shears.
- Fold and tie all the components of salwar together, to prevent it from missing.



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.5.34

The cut components of salwar are the following

Side Panel 4

Centre panel 2

Belt 2

- Join straight sides of side panels with centre panel, for both leg parts.
- Make bottom cuff with stiffening. (SS.No.1)
- Make ease stitches, 1 cm below upper edge of stitched leg pieces.
- Match centre front and centre back of leg piece and belt.
- Adjust the width of the leg piece with belt piece by gathering the fabric between the marks.

First gather, then pin belt to leg piece and set additional gathers for adjustment in the same operation.

- Stitch with double seam.
- · Repeat the process for other leg.
- Stitch inside leg lengths.
- · Join crotch by double seam.
- Cut excess material from bottom seam allowance.
- · Finish by making fold-down casing at top of belt.
- Prepare a tying string of 1-1.5 cm width from balance material. Length of string must be at least 15 cm longer than belt girth.
- · Press the garment.

Bottom finish

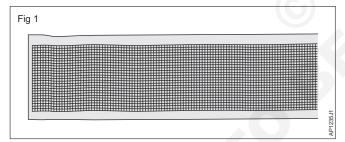
Objective: This shall help you to

· make decorative bottom cuff with stiffening.

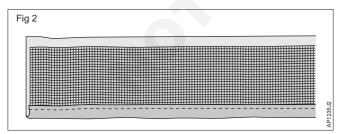
Cut two strips of canvas/stiffing material (size: width of bottom + 5 cm for shape and seam; 5 cm length.)

Cut 2 pieces of cloth from remaining fabric (width is same as canvas, length is 7 cm).

Place canvas piece over a strip of cloth on wrong side at a distance of 1 cm from each long edge. (Fig 1)

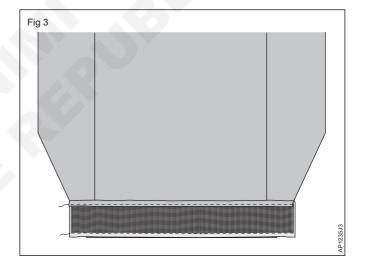


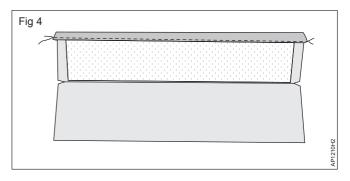
Turn 1 cm cloth over canvas strip and stitch 5 mm from edge. (Fig 2)



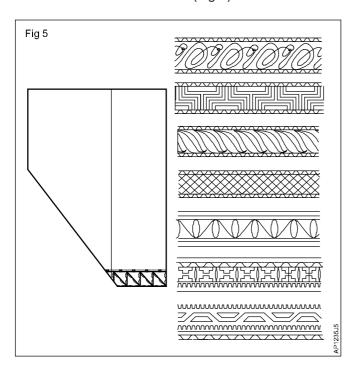
Place bottom strip over bottom of leg panel, with right sides together and stitch. (Fig 3)

Now turn bottom strip towards underside (wrong side of panel will match with wrong side of strip now) and stitch from right side at upper edge of bottom strip. (Fig 4)

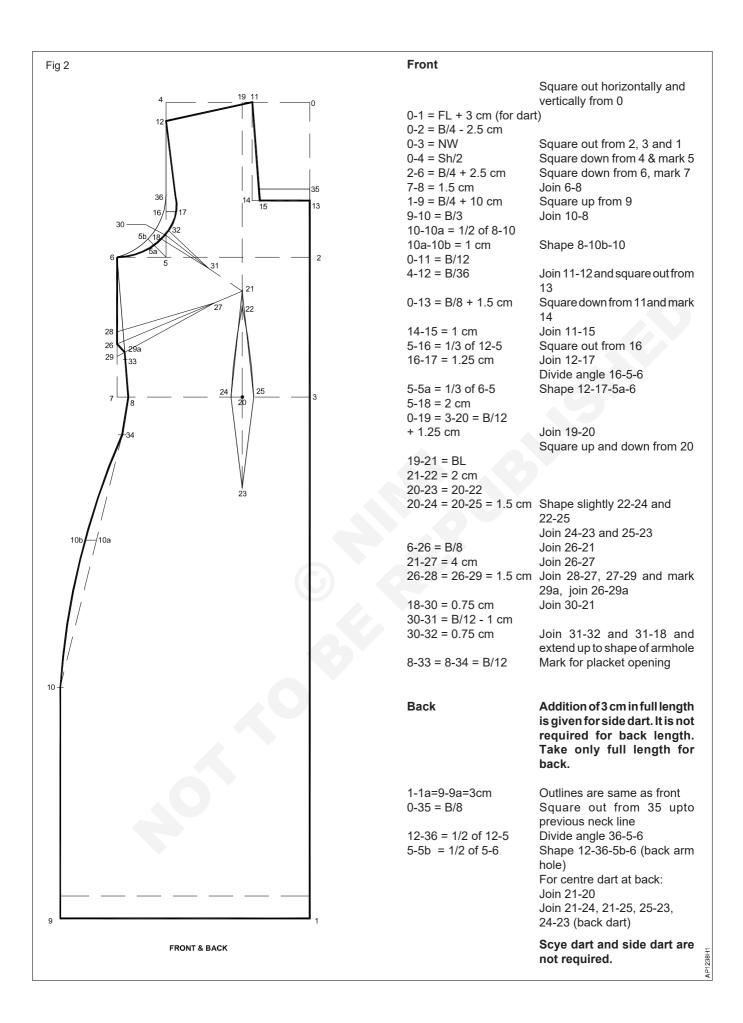


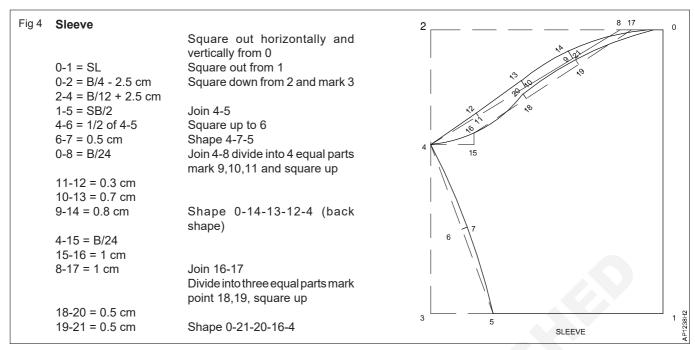


Decorate bottom with different decorative stitches with fashion maker machine or draw design on the cuff and stitch it with treadle machine. (Fig 5)









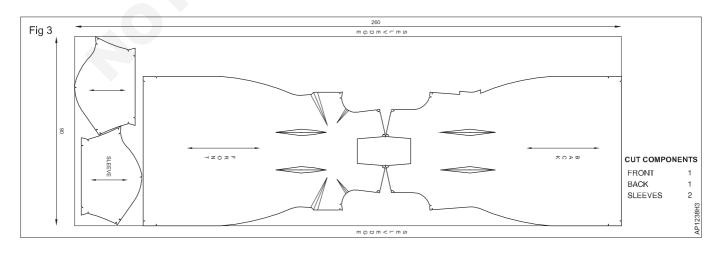
Master Pattern Add the given allowance to the cut paper pattern for seam allowance, turnings, hems, etc.

Front and back		Sleeve	
Neck, shoulder and armhole	0.75 cm	Тор	0.75 cm
Sides	2.5 cm	Side	2.5 cm
Bottom turning Placket portion at back side on left h	6 cm and 4 cm	Turning	3 cm

- Draw and cut the master pattern after marking the required allowances to the bodice and sleeve pattern.
- Cut notches at required markings.
- Name all the cut pattern of the kameez for future reference.

Layout and Cutting

- Lay the Kameez fabric open on the cutting table with its wrong side facing.
- Spread and arrange the master pattern of kameez front and back part, sleeve economically on the fabric (Fig 5).
- Mark the outline of all the components of kameez as arranged using a tailor's chalk
- Remove the master pattern. Cut the fabric components as marked using a sharp pointed scissors.
- Cut notches at dart markings to set their positions.
- Fold and tie all the cut fabric components of kameez together.



Style Features

- Front part with scye dart, side dart and waist dart
- · Back part with waist dart
- Faced neck finish
- Side Slit
- Inseam placket at the waist seam

Materials and Trimmings

- · Cut components of kameez
- 2 hooks
- Matching colour sewing thread
- Machine needle no.16
- Hand needle.
- The cut components of kameez are the following

Front bodice 1 Facing piece 1

Back bodice 1

Sleeves 2

- Baste and stitch darts, and press scye and side darts towards waistline and waist darts towards centre back and centre front.
- · Finish the neck with facing.
- Stitch front and back side together, leaving slit opening on both sides and in seam placket mouth on left side on marks.

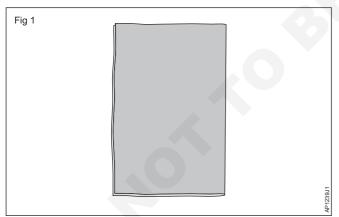
- Trim the edges of side seam with pinking scissor leaving placket opening.
- Prepare the inseam placket
- · Press open the side seams.
- Finish the slit and bottom by hem.
- · Finish the sleeve bottom by hem.
- Stitch the side seam of sleeve and trim the edges with pinking scissors.
- Set the sleeves in armhole (set-in-sleeve method).
- · Fix 3 hooks and eyes on placket.
- Finish and press.

Neckline facing

Objective: This shall help you to

· to cut the facing and to attach it to the square neck.

Take two pieces of cloth $(16 \times 22 \text{ cm})$ from the same fabric as the kameez for facing. Use excess material from layout. Fold each facing piece in centre widthwise. Work with one piece first. (Fig 1)

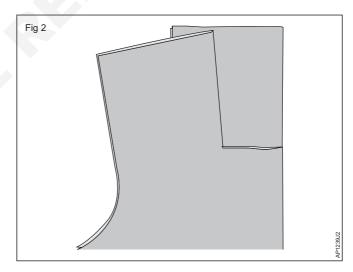


Set the folded front neck of kameez upon one folded piece together with folded edges of both pieces. Mark the neck shape and the slope of shoulder line on the facing. (Fig 2)

Copy the neck shape on facing at a distance of 4.5 cm. (Fig 3)

Cut on inner and outer shape and unfold the facing piece.

Repeat the whole process with back neck on other facing piece.

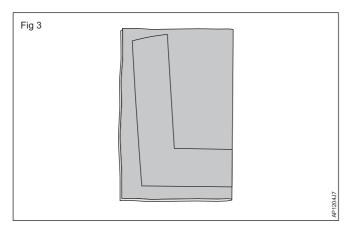


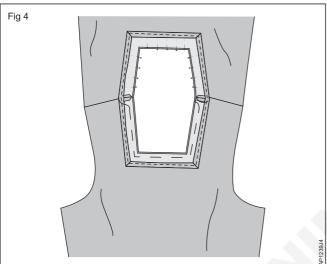
Stitch the shoulder seam of kameez and facing strip separately from the wrong side. Press open the shoulder seam of facing strip. Press the seam allowance of kameez towards back.

Turn the outer raw edges of facing strip by 1 cm towards wrong side and stitch at a distance of 0.5 cm.

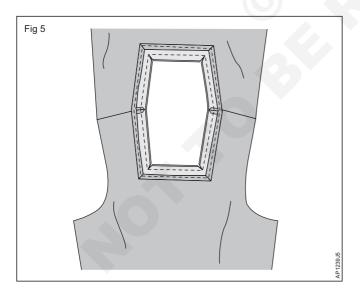
Pin the facing strip congruently on the neck of shirt; join right side of kameez and facing strip. Take care that shoulder seams match. Baste it. (Fig 4)

Stitch around the inner neckline at a distance of 0.75 cm.



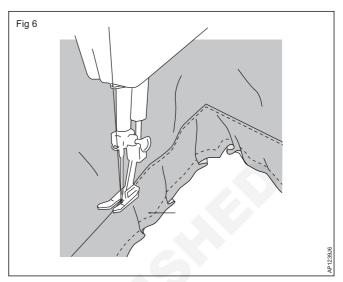


Clip all the corners diagonally leaving 2 mm from seam edge. (Fig 5)

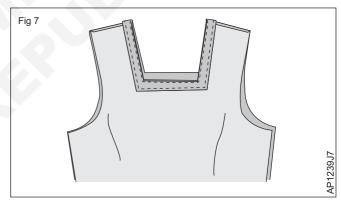


Fold the facing upwards inside the neck and top stitch all around very close to the edge of neck shape. (Fig 6)

Stitch only on facing and seam allowance, don't catch shirt material.



Fold the facing on the line on neck shape on the wrong side of shirt piece. Set the seam; press, baste and hem it. (Fig 7)



Apparel Exercise 1.6.35

Sewing Technology - Measurement of Pattern Techniques

Practice of taking body measurements

Objectives: At the end of this exercise you shall be able to

- · take measurement of individual figure
- · compare the standard measurement with individual measure
- · take measurements in different ways from a garment.

Requirements			
Tools/Instruments		Materials	
Measuring tape - 150cmDress form	- 1 set - 1 No.	Pencil or pen (2H)Record note book	- 1 No. - 1 No.
Diessionii	- 1 NO.	* Record Hote book	- 1 NO.

PROCEDURE

TASK 1: Individual body measurements

1 Bust round

Measure the figure at the fullest point of the bust; do not allow the tape to fall at the back.

2 Waist

Take this measurement round the waist, make sure it is comfortable.

3 Hip

Measure the widest part of the hips approximately 21 cm from the waistline.

4 Back width

Measure the back width 15 cm down from the neck bone at the centre back. Measure from armhole to armhole.

5 Chest

Measure the chest 7 cm down from the neck point at the centre front (armhole to armhole).

6 Shoulder

Measure from nape of the neck to the shoulder bone.

7 Neck size

Measure the base of neck touching front collar bone.

8 Dart

Take standard measurements from the size chart.

9 Top arm

Measure the biceps, make sure that the arm must be bent.

10 Wrist

Take the wrist measurement, around the wrist with slight ease.

11 Ankle

Measure around the ankle, just over the angle bone.

12 High ankle

Measure along the leg, just above the ankle.

13 Nape to waist

Measure form the neck bone at the centre back string tied around the waist.

14 Front shoulder to waist

Measure from centre of the front shoulder and the tape along the bust point to waist.

15 Armhole depth

Take standard measurement and verify measurement with that.

16 Skirt length

Measure the skirt length from the waist and do the required hem length.

Measure from waist to the floor at the back and front to check that the balance of the figure is even.

17 Waist to hip

Measure from waist to the level of below the hip.

18 Waist to floor

Measure from waist to floor starting from centre body.

19 Body rise

The subject should sit on a hard chair. Take the measurements at the side from the waist to the chest.

20 Sleeve length

Place the hand on hip so that the arm is bent. Measure from shoulder bone and bring the tape along the elbow to wrist bone above the little finger.

The list of individual measurements should be carefully checked against the list standard measurements and any great deviation accounted for. The blocks can then be drafted using the student's individual measurements.

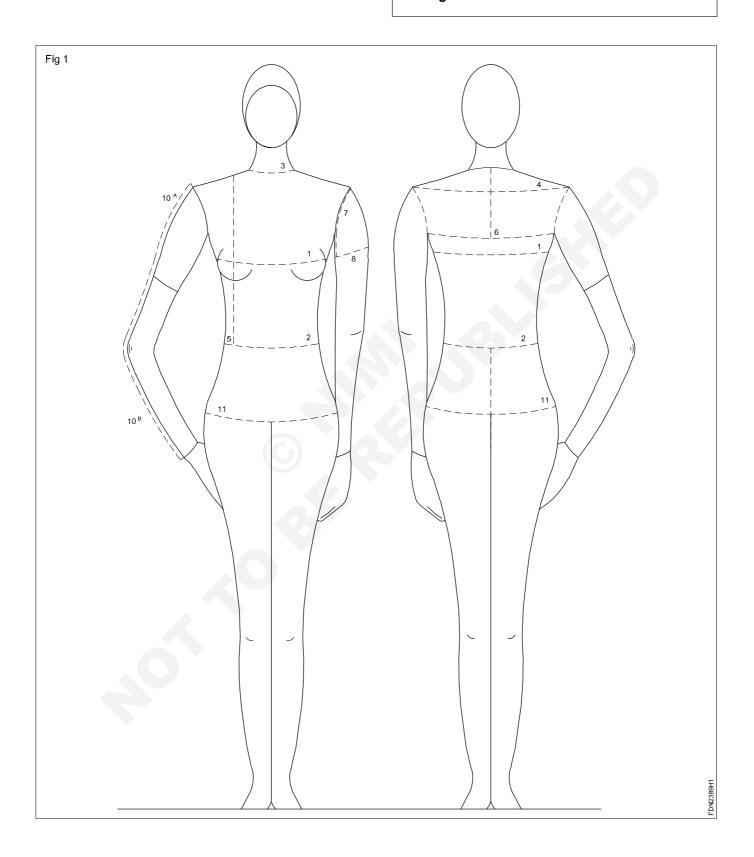


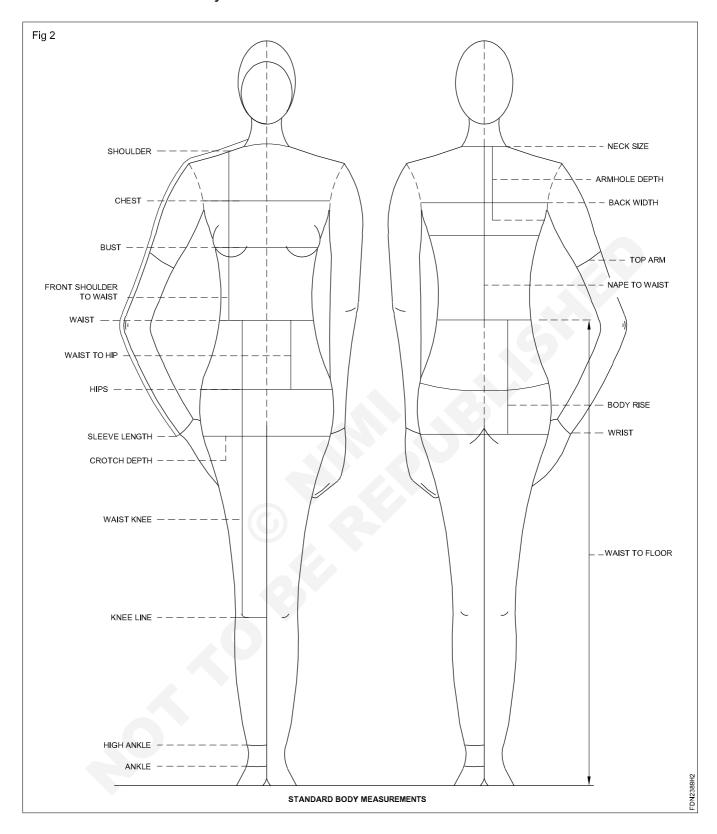
Table 1
Standard body measurements

This largest percentage of the population falls into medium high range. Although the girth of women varies, the general trend is for weight to increase with height. This feature is reflected in the size charts.

Women of Medium Height 160cm-170cm (5ft 21/2in-5ft 61/2in)												
Size Symbol	8	10	12	14	16	18	20	22	24	26	28	30
Bust	80	84	88	92	97	102	107	112	117	122	127	132
Waist	60	64	68	72	77	82	87	92	97	102	107	112
Hips	85	89	93	97	102	107	112	117	122	127	132	137
Back width	32.4	33.4	34.4	35.4	36.6	37.8	39	40.2	41.4	42.6	43.8	45
Chest	30	31.2	32.4	33.6	35	36.5	38	39.5	41	42.5	44	45.5
Shoulder	11.75	12	12.25	12.5	12.8	13.1	13.4	13.7	14	14.3	14.6	14.9
Neck size	35	36	37	38	39.2	40.4	41.6	42.8	44	45.2	46.4	47.6
Dart	5.8	6.4	7	7.6	8.2	8.8	9.4	10	10.6	11.2	11.8	12.4
Top arm	26	27.2	28.4	29.6	31	32.8	34.4	36	37.8	39.6	41.4	43.2
Wrist	15	15.5	16	16.5	17	17.5	18	18.5	19	19.5	20	20.5
Ankle	23	23.5	24	24.5	25.1	25.7	26.3	26.9	27.5	28.1	28.7	29.3
High ankle	20	20.5	21	21.5	22.1	22.7	23.3	23.9	24.5	25.1	25.7	26.3
Nape to waist	39	39.5	40	40.5	41	41.5	42	42.5	43	43.2	43.4	43.6
Front shoulder to Waist	39	39.5	40	40.5	41.3	42.1	42.9	43.7	44.5	45	45.5	46
Armhole depth		20.5	21	21.5	22	22.5	23	23.5	24.2	24.9	25.6	26.3
Waist to knee	57.5	58	58.5	59	59.5	60	60.5	61	61.25	61.5	61.75	62
Waist to Hip	20	20.3	20.6	20.9	21.2	21.5	21.8	22.1	22.3	22.5	22.7	22.9
Waist to Floor	102	103	104	105	106	107	108	109	109.5	110	110.5	111
Body Rise	26.6	27.3	28	28.7	29.4	30.1	30.8	31.5	32.5	33.5	34.5	35.5
Sleeve Length	57.2	57.8	58.4	59	59.5	60	60.5	61	61.2	61.4	61.6	61.8
Sleeve Length	07.2	07.0	00.1		00.0	00	00.0	01	01.2	01.1	01.0	01.0
(Jersey)	51.2	51.8	52.4	53	53.5	54	54.5	55	55.2	55.4	55.6	55.8
Extra Measurements (garments)		O										
Cuff size shirts	21	21	21.5	21.5	22	22.5	23	23.5	24	24.5	25	25.5
Cuff size, Two Piece sleeve	13.25	13.5	13.75	14	14.25	14.5	14.75	15	15.25	15.5	15.75	16
Trouser bottom												
Width	21	21.5	22	22.5	23	23.5	24	24.5	25.4	26.2	27	27.8
Jeans bottom Width	18.5	18.5	19	19	19.5	20	20.5	21	25.4	26.2	27	27.8

Apparel : Sewing Technology (NSQF - Revised 2022) - Exercise 1.6.35

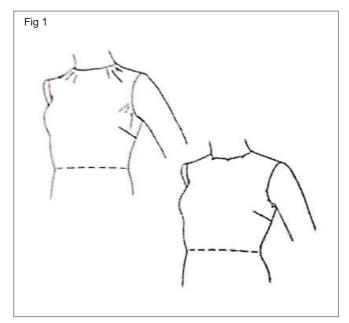
TASK 2: Measure standard body measurements



TASK 3: Alteration of garment as per requirement of customer

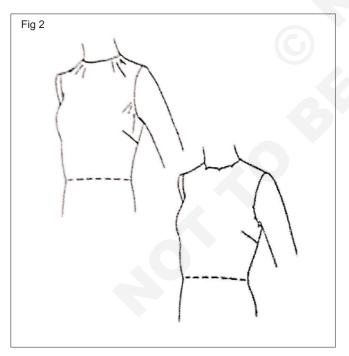
1 Problem - Folds below the bust dart

Solution-Undo the dart and part of the side seam. Lift shoulder a little, re-pin a bigger dart and pin the side seam to take out the excess fabric (Fig 1)



2 Problem - Low waist

Solution - Tie a band around the waist and remark the waistline. Remove and re-pin the skirt to new waistline (Fig 2).

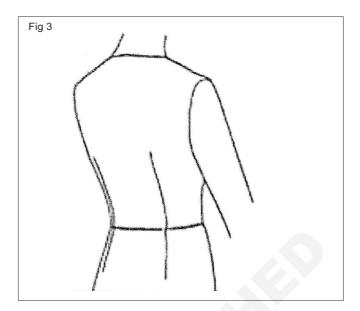


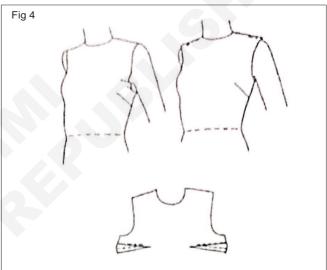
3 Problem-baggy below the hip'

Solution-Raise the skirt at back only and re-pin (Fig 3).

4 Problem-Gaping armhole

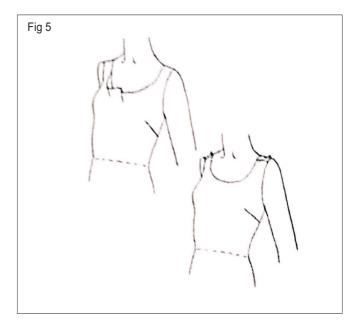
Solution-undo dart and pin a bigger dart. Making sure that it points towards the bust point. One may need to lift shoulder seam at the armhole (Fig 4).





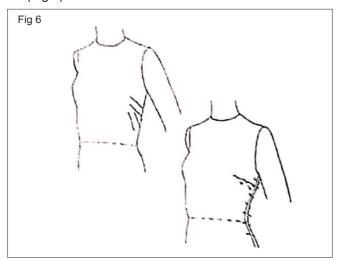
5 Problem-Low neckline gapes

Solution - Lift at the front shoulder seam. Lower the dart point if necessary (Fig 5).



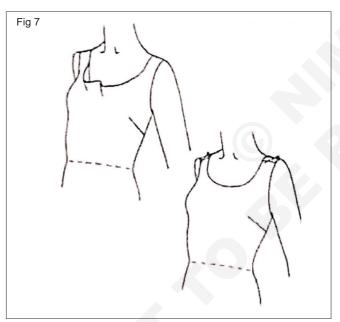
6 Problem-Folds in the dress below the waist.

Solution-Undo the side seam from below the armhole and ease out until the garment hangs smoothly (Fig 6).



7 Problem-Tight neck or armhole

Solution-slash and snip seam allowance to release tension. If it is not enough, mark a new seam line that is lower than before (Fig 7).



8 Problem-Neckline stands away and folds below Solution-release shoulder seam and let it out at the

armhole edge (Fig 8).

9 Problem-shoulder seam lies towards the front of the shoulder

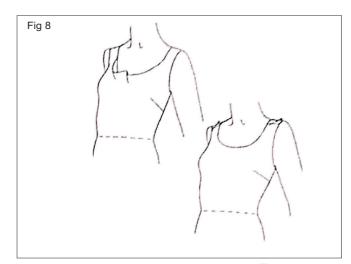
Solution-Undo shoulder seam and release front seam allowances only (Fig 9).

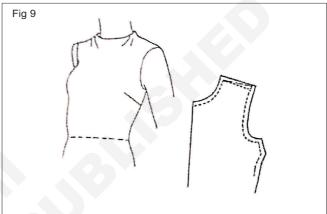
10 Problem-Folds across sleeve at the top

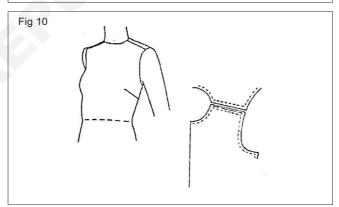
Solution-mark a new fitting line below the existing one to reduce cap height (Fig 10).

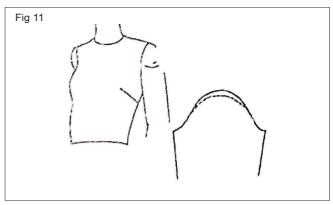
11 Problem-Sleeve hangs towards the back

Solution - remove the sleeve and re-pin by moving the notch at the centre of the sleeve towards the back so that the sleeve may hang towards the front (Fig 11).



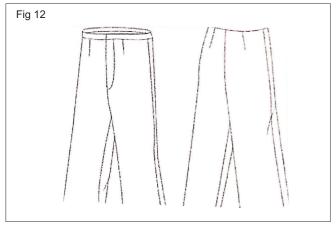






12 Problem-Trousers are loose at waist, hip or leg. Creases on leg and trousers stands away at waist.

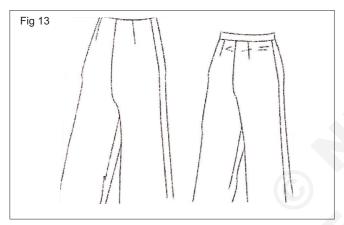
Solution-Take excess fabric at side and pin at original seam lower down. For larger hip increase the dart intake. Pin the excess towards the outer seam (Fig 12).



13 Problem- Trousers tight below the waist, crease around abdomen.

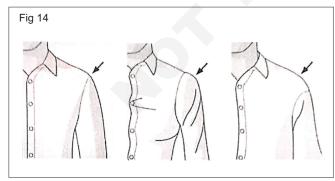
Solution- Release darts and reduce their width and length, also release some ease on the outer seams and re-p" (Fig 13).

A tailor must check the following details when he checks the fittings of a garment



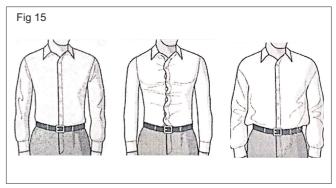
Shoulders

- Seam should lie on the edge of the shoulder
- The shoulders should be wide enough to ensure that the sleeves hang comfortably into position.
- The shoulder slope of the garment should go in sync with the shoulder slope of the wearer (Fig 14).



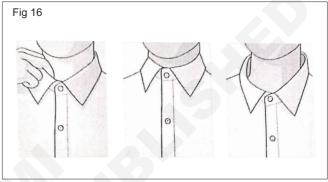
Chest/Bust

- The tip of the dart should end about an inch before the fullest part of the curve of the bust.
- Incorrect positioning of the dart will make the garment too fitted around the bust area (Fig 15).



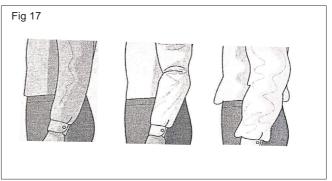
Neckline

- The front of the normal neck line should be always larger than the neckline at the back
- Neckline should not be too large or too small (Fig 16).



Collar

- The circumference of the collar should be atleast 1/4 the of an inch bigger than that of the neckline.
- You should be able to slip a finger in between your neck and the shirt at any point without struggling or forcing.
- The collar should neither be too tight nor too loose. (Fig 17).



Sleeves

- The crosswise grain at the bicep should lie parallel to the floor.
- The sleeve should not be too fitted or too loose as both can cause discomfort.
- The narrowest part of the garment should fall at the wearer's waist.

Hips

- Garments should have enough room around the hip area.
- Garments should not have excess ease in hip or thigh area as it will result in vertical folds.

Apparel Exercise 1.6.36

Sewing Technology - Measurement and Pattern Techniques

Practice on different types of layout using the given patterns

Objectives: At the end of this exercise you shall be able to

- · make the fabrics ready for layout
- practice on different types of pattern layouts.

Requirements			
Tools/Equipments/Instruments		Materials	
 Shears Iron box Cutting table Metre scale Measuring tape Pattern weights 	- 1 No. - 1 No. - 1 No. - 1 No. - 1 No. - as reqd.	 Plain poplin fabric Printed one way fabric Pattern set of different styles Sharp pins 	- 3 metres - 3 metres - 6 Nos

PROCEDURE

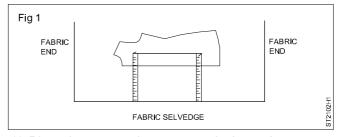
TASK 1: Make the fabrics ready for layout

- 1 Place the fabrics on the cutting table.
- 2 Check the end of the fabrics. The ends should be straight along crosswise direction and perpendicular to the selvedges. If not, cut the ends straight with a sharp shear.
- 3 Check the perfection of the grains of the fabrics. If not, make the grain perfect by stretching method. For that,
- stretch the fabric at 450 angle on the both right to left and left to right directions to make the grain perfect.
- 4 Check the fabric that without any wrinkles. Otherwise, press the fabrics with an iron box to make them without creases and wrinkles.

TASK 2: Practice different types of pattern layouts

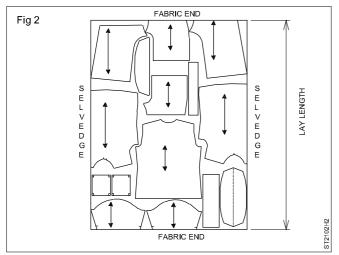
- 1 Place the poplin fabric right side up on the cutting table.
- 2 Check the ensure whether the fabric on the table is in straight condition. For that, ensure the selvedges of the fabric should be parallel to the edges of the cutting table.
- 3 Take one set of patterns and check whether all the pieces are available.
- 4 Place pattern on the fabric. Start from one end of the fabric.
- 5 The patterns should be laid out on the grains that means in warp direction of the fabric weave.
- 6 Place the main and large patterns with wider ends at the cut ends of the fabric first.
- 7 Place the small pieces in the gaps of the large pattern pieces.
- 8 Use sharp pins or weights to keep the patterns stable on the fabric.
- 9 Take care to lay the patterns to the directions indicated by grain line marks.

10 Check the grain lines of the patterns are parallel to the selvedges of the fabric. To ensure this, measure with the help of a scale and adjust the pattern so that both ends of the straight grain line are the same distance from the selvedge and pin the pattern to the fabric along the grain line arrow. (Fig 1)

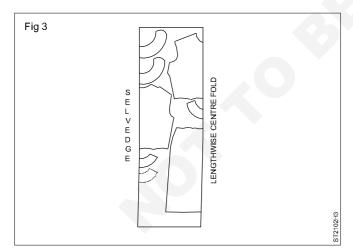


- 11 Place the patterns in an economical way. Lay pattern pieces close together.
- 12 Try to place many pieces as possible near the selvedge ends for getting more free space.
- 13 Try to place the wider end of one pattern piece beside the narrow end of the another pattern piece.
- 14 Place the similar pattern pieces similar in shape next to each other.

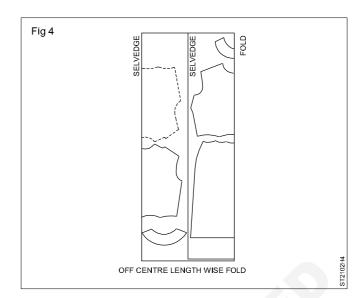
- 15 Check that all the patterns are laid out of the fabric. Try to understand this **open layout** type and method.
- 16 Measure the lay length of fabric consumption with the help of a measuring tape from one end of the fabric to the end of the patterns that placed last in the other side of the fabric. (Fig 2)

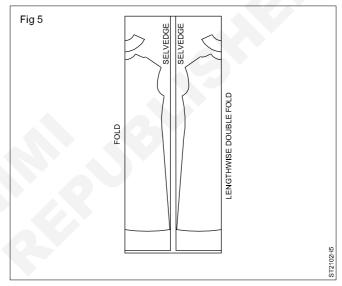


- 17 Try to do different layouts and note the lay length. Finally select one pattern layout which gives the minimum fabric consumption. (Lay length)
- 18 Remove all the used pattern pieces.
- 19 Fold the fabric down the middle parallel to the selvedges so that the selvedges come together to get **lengthwise centre fold layout** type.
- 20 Use another set of patterns and follow the steps used in the open layout method.
- 21 Fold lines of the patterns should be kept on the folded edges of fabrics. (Fig 3)

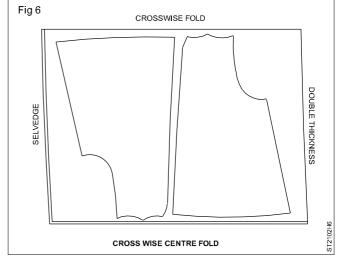


- 22 Next, take a new set of patterns and make the fold of the fabric off centre and parallel to the selvedge to get the **off centre lengthwise fold layout** type.
- 23 Make the pattern layout of this type. (Fig 4)
- 24 Fold the both selvedges of the fabrics so that they can meet at the centre of the fabric width so as to get the **lengthwise double fold layout type**. (Fig 5)





25 Fold the fabric centre crosswise and practice the layout so as to get the crosswise centre fold layout. (Fig 6)

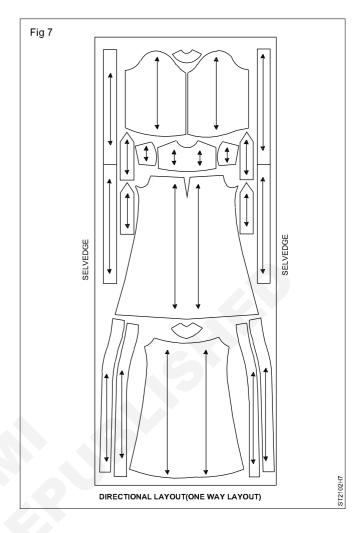


- 26 Place the printed one way fabric on the cutting table.
- 27 Follow the open layout method, but place all the pattern pieces in the same direction for getting directional layout or one way layout. (Fig 7)

Fold width wise means to fold the material along the weft line i.e., the fold will appear in width wise direction but will part the length of the material.

Fold lengthwise means to fold the material along the warp line i.e., the width of the material is folded parallel to the selvedge.

Get the work checked by your instructor.



Apparel

Exercise 1.7.37

Sewing Technology - Garment Sketching and Garment Making

Prepare patterns for sari petticoat

Objective: At the end of this exercise you shall be able to

• prepare pattern for sari petticoat.



Measurements

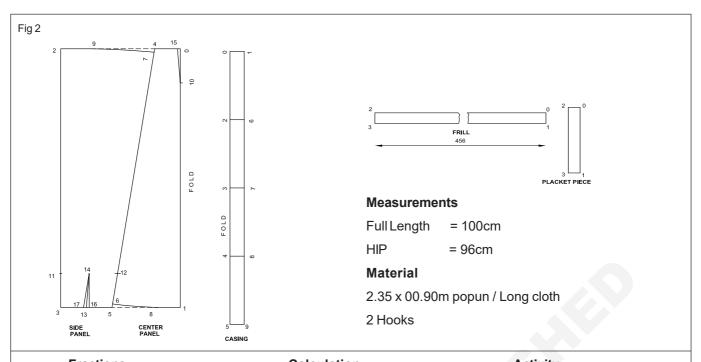
Full length = 100 cm

Hip = 96 cm

Material

poplin / Long cloth - 2.35 x 00.90m

Hooks - 2



Fractions	Calculation	Activity
Panels		
		Square out horizontally and vertically from point 0
0-1 = FL - Casing - frill	100 - 5 - 4 = 91 cm	Square out from 1
0-2 = 1/2 woc - 3 cm	45 - 3 = 42 cm	Square down from 2 and mark 3
0-4 = H/12 + 1 cm	8 + 1 = 9 cm	
3-5 = H/6 + 2 cm	16 + 2 = 18 cm	Join 4-5
4-6 = 5-7 = 0-1	91 cm	
1-8 = 1/3 of 1-5		Shape 1-8-6
2-9 = 1/3 of 2-4		Shape 7-9-2
0-10 = 3-11 = 5-12 = H/8	12 cm	
3-13 = 1/2 of 3-5		
11-14 = 1/2 of 11-12		Join 13-14
0-15 = 13-16 = 13-17	= 1 cm	Join 15-10, 16-14, 17-14
Note: 0-10 also determines the length of placket.		
APPLIED CASING		
		Square out horizontally and vertically from 0
0-1	= 5 cm	Square out from 1
0-2 = 2-3 = 3-4 = 4-5 = 1-6		
= 6-7 = 7-8 = 8-9 = H/4	24 cm	
Placket		
		Square out vertically and horizontally from 0
0-1 = H/4 + 1 cm	25 cm	Square out from 1
0-2	= 4 cm	Square down and mark 3
Frill		
		Square out vertically and horizontally from 0
0-1	= 4 cm	
0-2	= 4.56 m	Square out from 1, square down from 2 and mark 3

Requirements			
Tools/Instruments Pattern for sari petticoat Cutting table	- 1 No. - 1 No.	 Thread clipper Dummy (Size should be matched with the size of the petticoat) 	- 1 No.
 Hooks Sewing machine Matching thread Pressing table Iron box	2 Nos1 No.as reqd.1 No.1 No.	 Material Poplin/Long cloth 2.35 x 0.90m 2.35 x 0.90 m Poplin/Longcloth 2 hooks 	- 1 No.

Estimate fabric for a sari petticoat

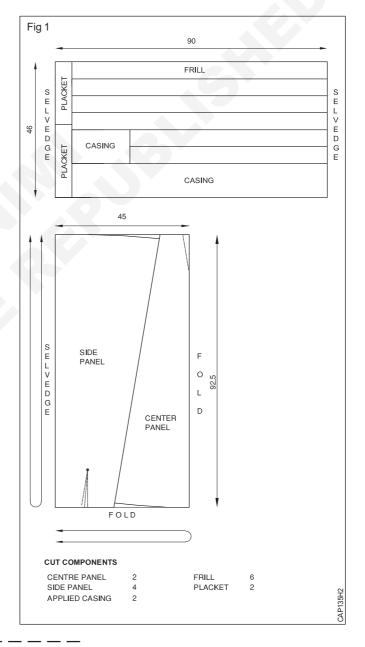
Objective: At the end of this exercise you shall be able to • estimate fabric for a sari petticoat by layout method.

Estimate fabric for a sari petticoat

1 Cut 46 cm from the length of the fabric. Fold the rest of the material (1.85 m) double, ie. widthwise and lengthwise. Layout master pattern of the panel pieces. Take care that the grain lines of pattern and fabric are matching. Take the other piece of material and layout casing and placket pieces on full width of the cloth. Due to the given width of the cloth the casing consists of two pieces. (Material is calculated with 2 cm tolerance). (Fig 1) Calculate 5.75 cm for the width of frill.

Measure the fabric that all the patterns are consumed.

Get the work checked by your instructor.



Cut and sew a sari petticoat

Objective: At the end of this exercise you shall be able to • **cut and sew a sari petticoat.**

Cut and sew a sari petticoat

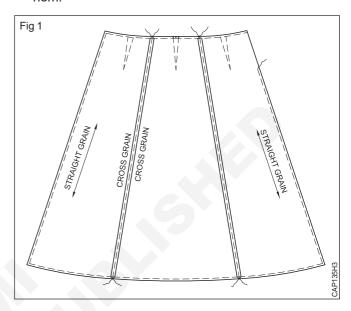
- 1 Make layout of sari petticoat on the fabric.
- 2 At all pattern components mark with chalk on outer lines and on notches. Remove paper pattern and transfer the darts and other marks on lower layer of the fabric with the help of tracing wheel. Cut the components.

Due to the folds in the fabric side, panels have to be separated on top, centre and bottom.

- 3 Stitch the darts in all panels. Join sides leaving placket opening at the left side.
- 4 Join (pin, baste and stitch) the centre panel with side panels matching the cross grains. Straight grains will appear on the sides. (Fig 1)
- 5 Prepare two-piece placket (waistline for petticoat) on the left side. Join applied casing pieces with plain seam.
- 6 Finish waist with applied casing. Finish bottom with pleated frill.

7 Attach hooks and eyes on a placket. Trim the extra threads with trimming scissors. Press the garment.

Turn one edge by 0.5 cm and again turn for 0.5 cm to hem



Skill sequence

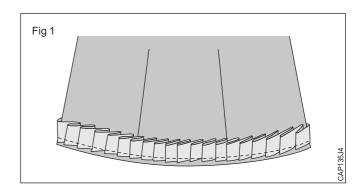
Frill at bottom

Objective: This shall help you to

- · prepare the frill and to join it to the bottom of the petticoat.
- 1 As for frill length calculate three times the width of flare.
- 2 Join the strips for frill with pressed open seam. Trim seam allowance diagonally.
- 3 The frill with machine on bottom line.
- 4 Set marks on the strip widthwise at a distance of 3 cm alternately. Always fold section no.1 on top of section no.2.
- 5 Place folded frill on the bottom of petticoat with right sides together and raw edges matching. Baste and stitch, leaving 0.75 cm seam allowance. (Fig 1)
- 5 Turn the frill downwards and both the seam allowances towards petticoats side.
- 6 Stitch top seam from right side on top of the edge of the seam where frill is joining.
- 7 Stitch another top seam at the distance of 0.5 cm parallel to the previous seam.

8 Cut the extra threads with trimming scissor, press and fold.

The flare of a frill can vary also to double or 11/2 times.



Apparel Exercise 1.7.38

Sewing Technology - Garment Sketching and Garment Making

Check the fitting of a sari petticoat

Objective: At the end of this exercise you shall be able to

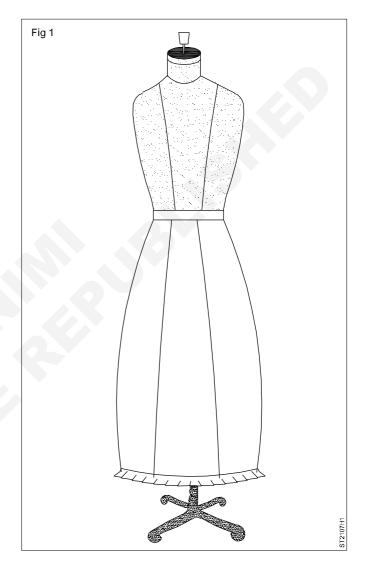
· check the fitting of a sari petticoat.

PROCEDURE

Check the fitting of a sari petticoat

- 1 Put on the garment right side out over a correct size dummy.
- 2 Check the waist line of the petticoat is matching with the waistline of the dummy.
- 3 Adjust the petticoat so that the waist line coincides with the waistline and side seams coincide with the sides of the dummy.
- 4 Study the overall appearance of the petticoat. (Fig 1)
- 5 Check whether there are any changes needed in length and bottom circumference of the petticoat.
- 6 Check whether it has the right amount of ease across the hip.
- 7 Check whether the seam lines follow the general silhouette of the dummy.
- 8 Check whether the grain lines are falling correctly in the proper places of the dummy.
- 9 Check whether there are any wrinkles.
- 10 Note the changes in a paper if necessary.

Get the work checked by your instructor.



Apparel Exercise 1.7.39

Sewing Technology - Garment Sketching and Garment Making

Practice on special industrial sewing machine double needle lock stitch machine

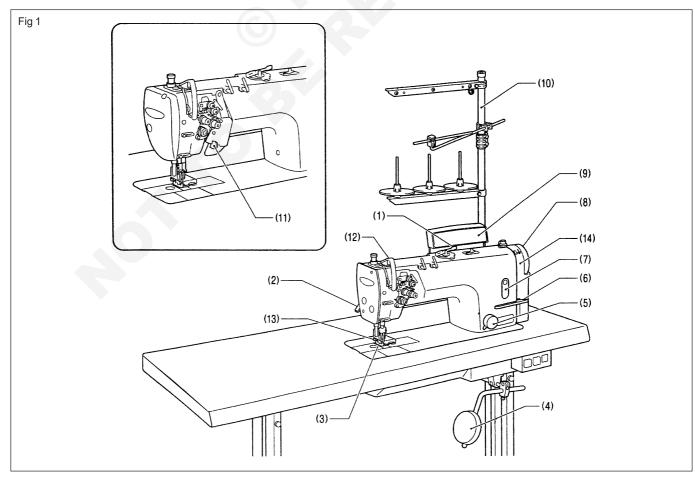
Objectives: At the end of this exercise you shall be able to

- identify the major parts of double needle lock stitch machine and their uses
- wind the lower thread (bobbin) and place bobbin case into lower assembly
- · install the bobbin into rotary hook
- · remove the bobbin on rotary hook latch
- · thread the upper thread
- · adjust the stitch length
- · identify the corner sewing method
- · back tack and adjust the tension of upper and lower thread
- practice stitches per length on different material.

Requirements	•	
Tools		
Sewing thread	- 1 No. Machine	
 Scissors 	- 1 No. • Sewing machine	-1 No.
 Trimmer 	- 1 No.	
 Marking chalk 	- 1 No.	
Machine tape	- 1 No.	
Bobbin	- 1 No.	

PROCEDURE

TASK 1: Identify the major parts of the double needle lock stitch and their uses. (Fig 1)



Bobbin winder (1)

Wind the Bobbin by placing the Bobbin into Bobbin winder wind around 40 meters of sewing thread.

Ensure the bobbin should not be loaded too much.

Lifting lever (2)

Hand lifter used for lifting the presser foot by hand, while the m/c in ideal condition, use the hand lifter lever.

Presser foot (3)

Presser foot mainly used for hold the fabric during stitching performance.

Knee lifter assembly (4)

Knee lifter is used for lifting the presser foot, ensure. While stitching the knee should not touch the knee lifter. Knee lifter used for to keep the material under the presser to remove the fabric under the needle.

Stitch length dial (5)

It used to maintain the length of stitch as per the fabric. While changing the length of stitch turn the regulator with the right hand and left hand hold the back tack lever.

Reverse lever (6)

It is a reinforcement stitch, used to increase the stitch strength in the end or beginning.

Oil gauge window (7)

It indicates the flow of oil to the internal parts of the machine.

Machine pulley (8)

The diameter of the pulley decides the speed of the sewing machine. The decreasing the size of pulley indicate high speed of machine

Alarm display (9)

It is used to indicate the setting machine stitches and also type of setting is available

Cotton stand (10)

To hold the spool thread. Cotton thread is placed to avoid the vibration of machine.

Stop lever (11)

Stop lever is used to stop the motion of the needle.

Thread – take lever cover (12)

It is used to avoid the accident during the sewing the window glass is placed in a machine thread take up lever.

Finger guard (13)

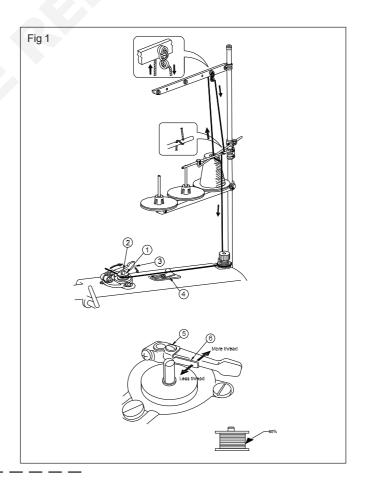
Safe guard to prevent the finger going under the needle.

Belt cover (14)

To prevent the accident during sewing the belt has cover.

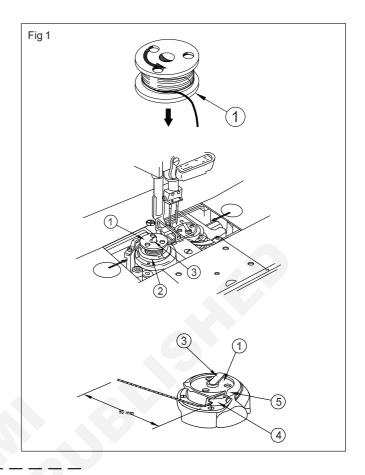
TASK 2: Wind the bobbin for the lower assembly

- 1 While winding the bobbin ensure that power switch is off as shown in the Fig 1.
 - Place the bobbin on to the bobbin winder shaft. (Fig 2 Pt. 1 and 2)
- Wind the thread several times around the bobbin as the direction indicated by arrow. (Fig 1 Pt:3)
- 4 Push the bobbin presser arm towards the bobbin. (Fig 1 Pt.4)
- 5 Raise the presser foot with the lifting lever. (Fig 1 Pt.5)
- 6 Depress the thread, lower thread winding then start. (Fig 1 Pt.6).
- 7 Winding of lower thread is completed the bobbin press arm will return automatically to its position.
- 8 Bobbin thread has been wounded on the bobbin remove the bobbin, cut the thread with the help of the trimmer.



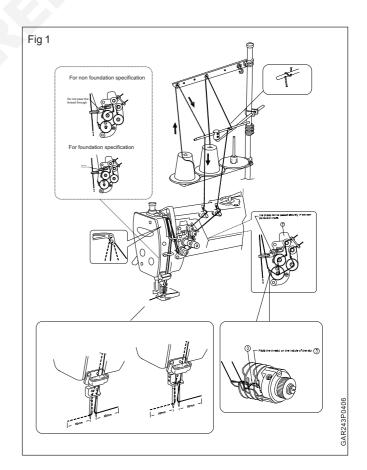
TASK 3: Install the bobbin into rotary hook

- 1 Take the bobbin, open the rotary hook then place the bobbin into rotary hook.
- 2 Turn the Rotary hook latch to its original position.
- 3 Turn the machine pulley to rotate the rotary hook until the tension spring is visible.
- 4 Pass the thread through slit into the rotary hook and then pass it under the tension (thread) spring.
- 5 Pull out the thread to a length of approximately 50mm.
- 6 Close the slide plate.
- 7 Rotate the pulley and bring the bobbin thread to the top with the help of the needle. (Fig 1)



TASK 4: Thread the upper thread

- 1 Thread take up lever the major function of take up lever provide the thread to the needle during the stitch.
- 2 Press the tension release plates before pressing the thread to free tension disc. It will help to pass the threading easily.
- Pass the thread on the inside of the tab. It will help to reduce the tension in sewing thread. (Fig 1)

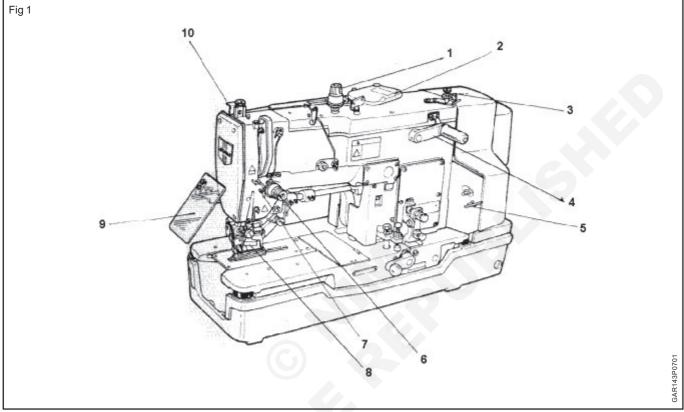


Practice on operations of button hole machine

Objectives: At the end of this exercise you shall be able to

- · identify the button hole stitching machine parts
- · thread the button hole machine
- · install and remove the bobbin case
- reduce the speed of the machine
- · change the number of stitch length.

TASK 1: Identify the button hole stitching machine parts (Fig 1)



Machine parts

- 1 Thread tension disc.
- 2 Speed gear for changing the number stitches in button hole.
- 3 Bobbin winder.
- 4 Emergency stopper.

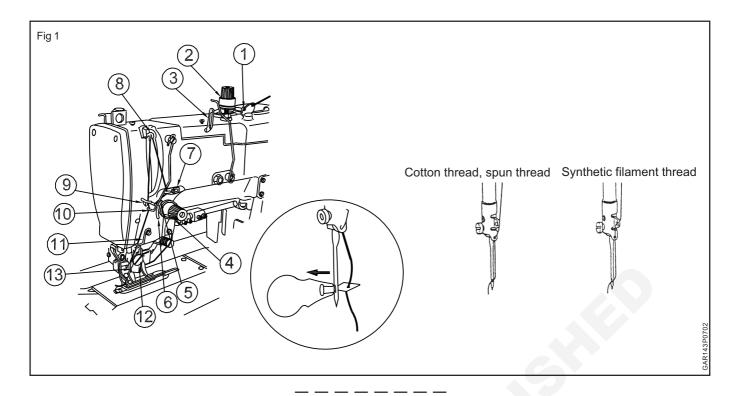
- 5 Bobbin winder.
- 6 Thread tension (needle tension) disc.
- 7 Spring guard.
- 8 Knife for making the hole after stitching the button hole.
- 9 Window glass.
- 10 Knife stop lever.

TASK 2: Thread the button hole sewing machine

- 1 Pass the needle thread from the spool stand to the thread guide. (Fig 1)
- 2 Pass the thread from left to right to the thread tension disc.
- 3 Then pass the thread to another thread guide from front to back.
- 4 Pass the thread to the thread tension disc from down to top direction.
- 5 Pass the thread from tension disc to spring guide.
- 6 Pass the thread to the thread guide
- 7 From the thread guide to 'T' guard pass the thread.

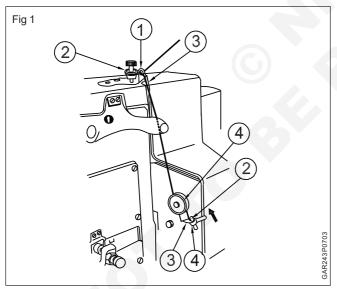
- 8 Bring the thread from 'T' guard to take up lever. Back to front pass the thread.
- 9 Then take up lever to pull the thread towards to down thread guide.
- 10 Finally pass the thread to adjusting thread guide pass the thread.
- 11 Pass the thread to 11 and 12 thread guide (in case of sewing thread cotton pass the thread to 12 guide directly).
- 12 Finally pass the thread into needle from back to front threaded.

Repeat the exercise for four or five times.



TASK 3: Install and remove the bobbin case in the button hole machine

- 1 Fit a bobbin onto the bobbin winder shaft.
- 2 Take the thread from the spool and pass it through the guide. (Fig 1)



- 3 Push bobbin winder trip latch in the arrow direction and then bobbin will be wound.
- 4 Loosening the adjusting nut so that the bobbin is wound about four fifths full.

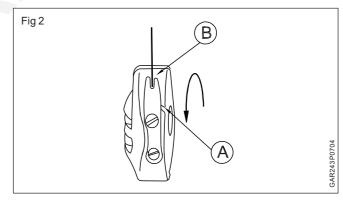
Attach the bobbin into the bobbin case

- 5 Hold and place a bobbin into the bobbin case so that the bobbin is wounded counter clockwise. (Fig 2)
- 6 Passing the thread through the thread outlet A of the bobbin case, pull the thread and thread can be drawn out from the thread outlet B, passing under the bobbin winder tension spring.

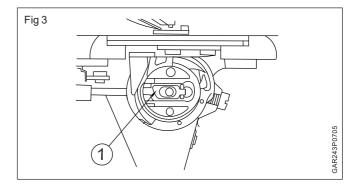
7 Set the bobbin so that in the arrow direction when the bobbin thread is pulled.

Installation/Removal of bobbin case

8 Lift up and hold bobbin case latch lever between two fingers to remove it from the hook. A bobbin does not fall off the bobbin case while the latch lever is lifted up.



9 For installation of the bobbin case push the bobbin case into the hook, so that it supported by the hook shaft and the snap in the latch cover. (Fig 3)



Practice on operations of button sewing machine

Objectives: At the end of this exercise you shall be able to

- · identify the major parts of button stitching machine
- · threadle the button stitching machine
- · adjust the stitch length.

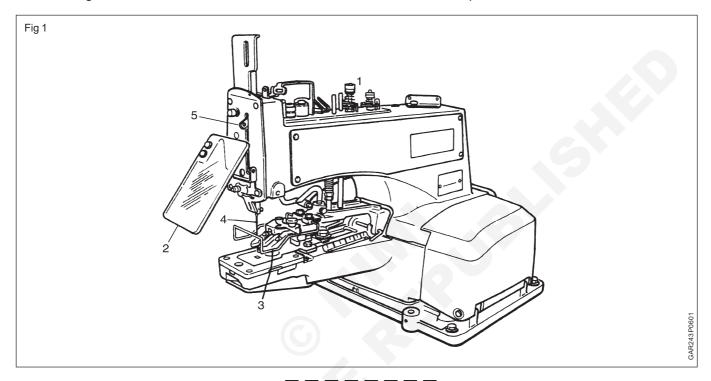
TASK 1: Identify the major parts of button stitching machine

Name of the machine parts (Fig 1)

- 1 Needle thread tension disc
- 2 Window glass

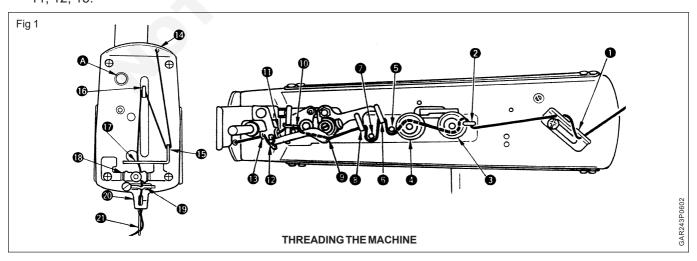
150

- 3 Presser foot
- 4 Needle
- 5 Thread take up lever



TASK 2: Threadle the button stitching machine (Fig 1)

- 1 Start threading from the spool to thread guide 1 and 2.
- 2 Rotate the thread into tension disc in clockwise direction 3 and 4.
- 3 Put the thread into thread guide 5, 6, 7, 8, 9, 10 and 11, 12, 13.
- 4 Thread the 14th thread guide bring to spring 15, 16, 17 and 18.
- 5 Before threading into needle pass the thread 19 and 20 guide, 21 thread the needle thread from front to back.

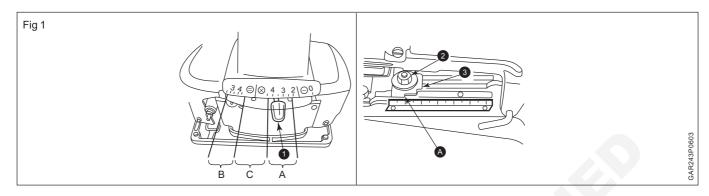


Length wise feed

- 1 Length wise feed push down the adjusting lever as shown in Fig 3 Pt:1.
- 2 Set the feed to '0' for 2 holes buttons (0) 4 holes buttons

Cross wise feed

Loosen nut as shown in Fig 3 Pt: 2 and set section (a) of pointer (3) to a corresponding amount. Then tighten nut (2) for cross wise feed.



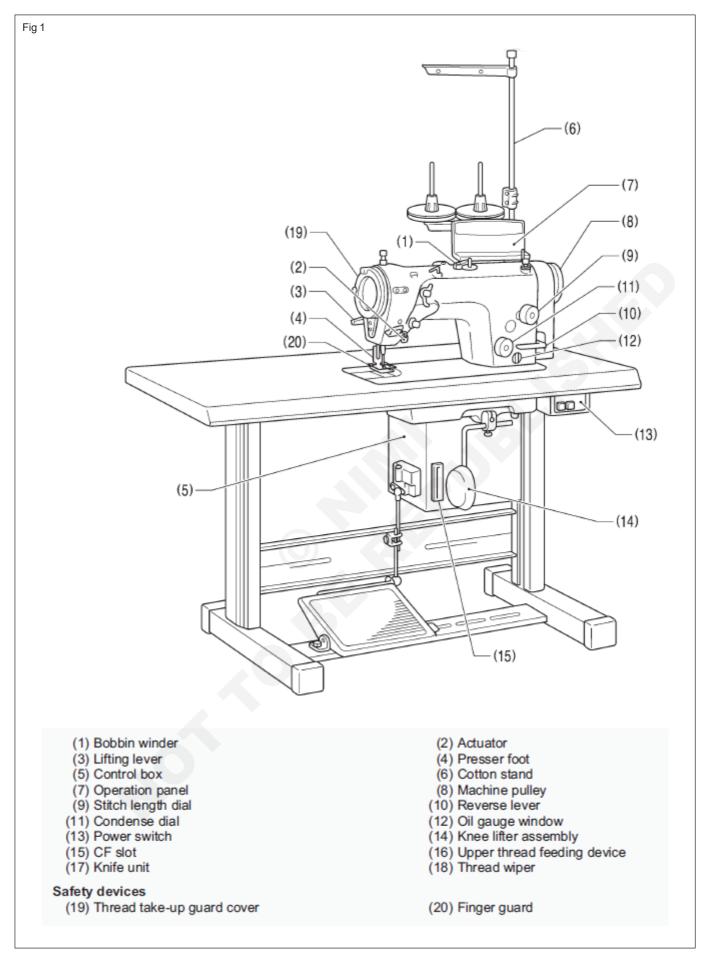
Practice on operations of multi purpose (Zig Zag) machine

Objectives: At the end of this exercise you shall be able to

- · identify the parts of a zig zag machine
- practice winding the lower thread on zig zag machine
- · practice installing the bobbin case on zig zag machine
- · practice upper threading on zig zag machine
- · practice adjusting the stitch length on zig zag machine
- practice setting the sewing pattern on zig zag machine
- · practice setting the zigzag width on zig zag machine
- practice sewing on zig zag machine.

TASK 1: Identify the parts of zig zag machine

1 Identify the parts of a Zig Zag Machine with the help of the following figure (Fig 1).



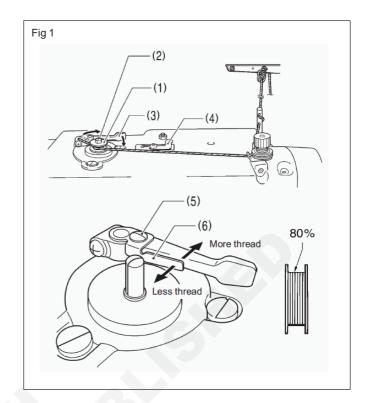
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TASK 2: Practice winding the lower thread on Zig Zag Machine (Fig 1)

- 1 Turn on the power switch.
- 2 Place the bobbin (1) onto the bobbin winder shaft (2).
- 3 Wind the thread several times around the bobbin (1) in the direction indicated by the arrow.
- 4 Push the bobbin presser arm (3) toward the bobbin (1).
- 5 Raise the presser foot with the lifting lever.
- 6 Depress the treadle. Lower thread winding will then start.
- 7 Once winding of the lower thread is completed, the bobbin presser arm (3) will return automatically.
- 8 After the thread has been wound on, remove the bobbin and cut the thread with the knife (4).
- 9 Loosen the screw (5) and move the bobbin presser (6) to adjust the amount of thread wound onto the bobbin.

The amount lot thread wound onto the bobbin should be a maximum of 80% of the bobbin capacity.

Do not touch nay of the moving parts or press any objects against the machine while winding the lower thread, as this may result in personal injury or damage to the machine.



TASK 3: Practice installing the bobbin case on Zig Zag Machine (Fig 1).

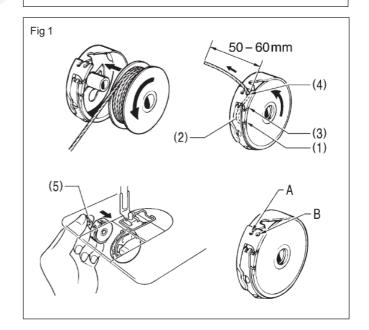
- 1 Turn the sewing machine pulley to align the reference line on the pulley with the indent in the motor cover.
- 2 Hold the bobbin so that the thread spools out counter clockwise, and place the bobbin into the bobbin case.
- 3 Pass the thread through slot (1) and hook it under the tension spring (2).
- 4 Pass the thread back through the slot (3) and then pull it out from the thread guide.

A and B on the thread guide (4) (Guide to identification)

- A Normally A should be used.
- B The amount of lower thread feeding-out is greater than for A, so this is ideal for extremely stretchy materials and medium-weight materials.
- 5 Check that the latch (5) of the bobbin case, insert the bobbin case into the rotary hook.
- 6 While holding the latch (5) of the bobbin case, insert the bobbin case into the rotary hook.

Turn off the power switch before installing the bobbin case.

The machine may operate if the treadle is depressed by mistake, which could result in injury.



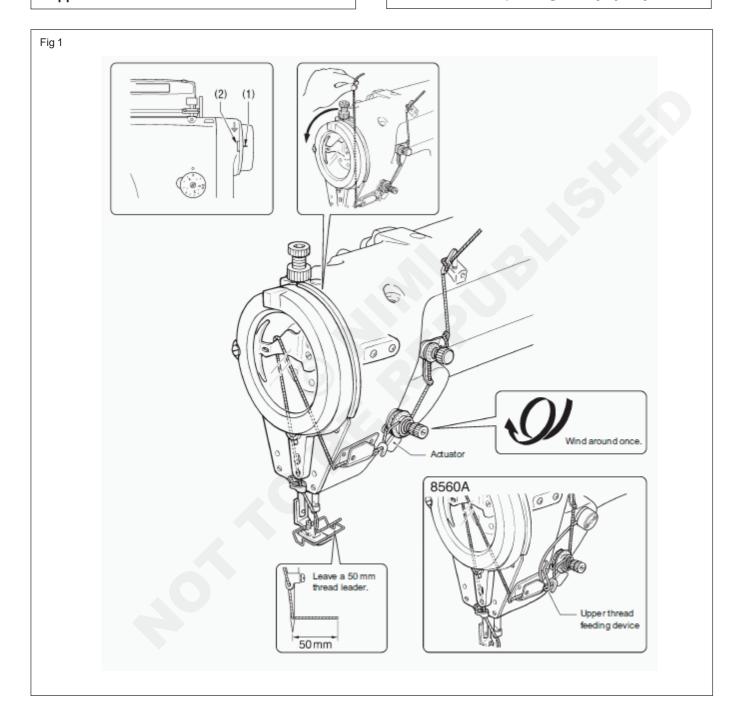
TASK 4: Practice upper threading on zig zag machine (Fig 1)

- 1 Turn the sewing machine pulley to align the reference line (1) on the pulley with the indent (2) in the motor cover (needle up stop position)
- 2 This will make threading easier and it will prevent the thread from coming out at the sewing start.

Turn off the power switch before threading the upper thread.

The machine may operate if the treadle is depressed by mistake, which could result injury.

If the actuator is pressed by mistake when using the correction sewing function, the needle will move in a zig zag motion while the machine is operating and injury may result.



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.7.39

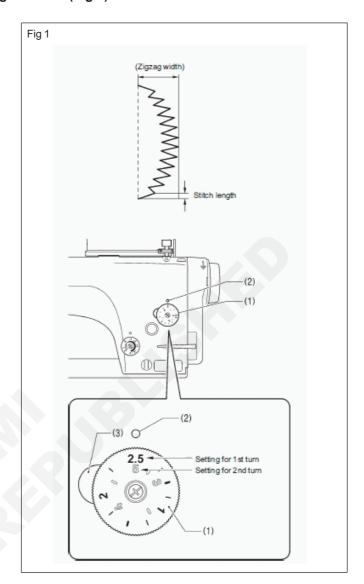
TASK 5: Practice adjusting the stitch length on zig zag machine (Fig 1)

Turn the stitch length dial (1) until the desired stitch length number is aligned with the index mark (2) above the dial.

- 1 The larger the number, the longer the stitch length will be.
- 2 The numbers on the dial are for use as a guide. The length of the finished stitches may vary depending on the type and thickness of material being sewn. Adjust while looking at the finished stitches.

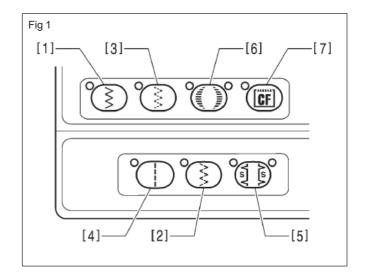
If the stitch length dial (1) is turned to a setting greater than 2.5

- 3 In this case, replace gauge parts such as the feed dog with parts for using with a feed amount of more than 2.0mm.
- 4 In addition, change the maximum feed amount setting while referring to Page 57, and then adjust the stitch length dial (1) as described below.
 - a Turn the stitch length dial (1) all the way to "2.5".
 - b After this, push the left lever (3) while turning the stitch length dial (1) so that it can be turned a second time. When the stitch length dial (1) is turned a second time, the settings will be those on the inside of the scale (3-5).
- 5 When turning the dial from a larger number to a smaller number, it can be turned to the second time setting without pushing the left lever (3).



TASK 6: Practice setting the sewing pattern on Zig Zag machine (Fig 1)

- 1 Press the sewing pattern select keys ([1] to [7] in the illustration left) to select the sewing pattern. The indicator for the key that was pressed will illuminate and the pattern number that has been set for that key will appear in the main display.
- 2 When a sewing pattern has been set, be sure to set the zig zag width.
- 3 Different zig zag widths and zig zag lengths can be set for each sewing pattern.



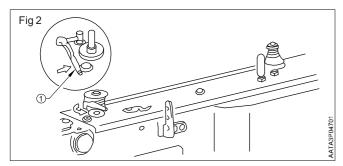
Practice on operations of bar tack machine

Objectives: At the end of this exercise you shall be able to

- · wind the lower thread on bar tacking machine
- practice upper threading on bar tacking machine
- · fix the bobbin case on bar tacking machine
- practice sewing on bar tacking machine and adjust the thread tension.

TASK 1: Wind the lower thread on bar tacking machine (Fig 1)

- 1 Place the bobbin all the way onto the shaft.
- 2 Fix the sewing thread cone at the spool pin and thread through the thread guide and tensioner and wind the thread around the bobbin several times in the direction of the arrow, and then press the bobbin presser (Fig 2).



- 3 Turn on the power switch. (The power indicator on the operation panel will illuminate).
- 4 Depress the foot switch to move the feed mechanism to the sewing start.
- 5 Check that the needle is not touching the presser foot, and then while pressing the bobbin wind switch depress the foot switch to start the machine. Keep depressing the foot switch until the lower thread stops being wound onto the bobbin.

(Release the bobbin wind switch after the machine starts operating. If you release the foot switch before winding is completed, depress it once more while pressing and holding the bobbin wind switch)

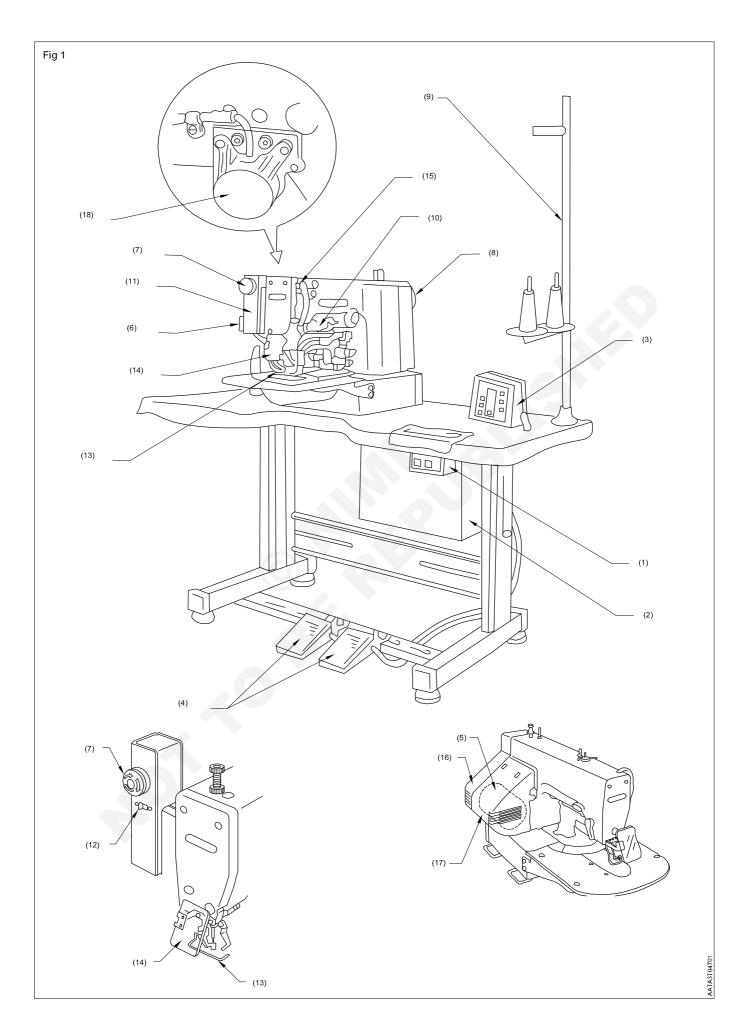
The bobbin presser will automatically return to its original position after a set amount of thread (80 - 90% of the bobbin capacity) has been wound on.

- 6 Release the foot switch.
- 7 Remove the bobbin, hook the thread onto the knife, and then pull the bobbin in the direction.
- 8 To wind more thread onto the bobbin, loosen the set screw and pull the bobbin presser outward.

If the thread winds onto the bobbin unevenly, loosen the nut and turn the bobbin winder thread tension stud to adjust.

 If the thread winds on as shown in A, turn the bobbin winder thread tension stud clockwise; if it winds on as shown in B, turn the bobbin winder thread tension stud counterclockwise.

Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.7.39

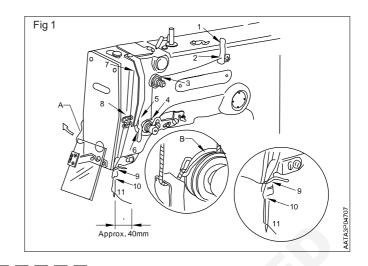


Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.7.39

TASK 2: Practice upper threading on bar tacking machine

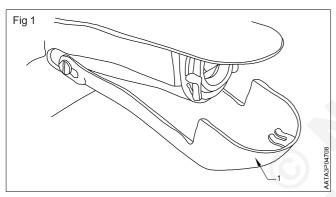
- 1 Place the sewing thread on spool pin and draw it through thread guides (1) & (2) and through the tensioners (3) & (4).
- 2 Pass the thread through the guides (5) & (6) and take up lever (7). Draw the thread through guides (8), (9) & (10) and finally insert it into the needle hole (11).
- 3 Make the thread has the length atleast 4 cms, from the needle hole. (Fig 1)

If the tension release lever(A) is raised in the direction of the arrow, it will be easier to open the tension disc (B) and pull the thread through.



TASK 3: Fix the bobbin case on bar tacking machine

1 Pull the shuttle race cover (1) toward you to open it. (Fig 1)

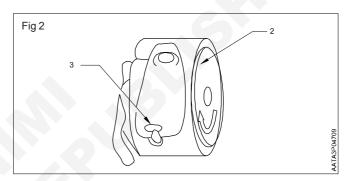


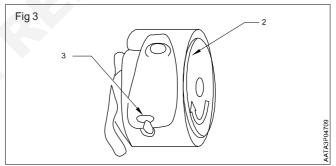
- 2 Insert a new bobbin into the bobbin case, and then pass the thread through the slot(2) and pull it out from the thread hole (3). Check that the bobbin turns in the direction of the arrow when the thread is pulled at this time. (Fig 2).
- 3 Pass the thread through the lever thread hole (4), and then pull out approximately 30 mm of thread. (Fig 3).

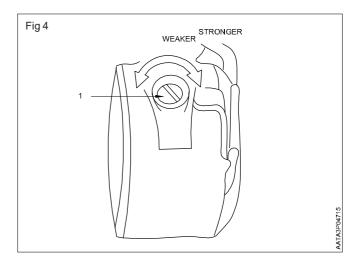
Turn off the power switch at the following times, otherwise the machine may operate if the foot switch is depressed by mistake, which could result in injury.

- When threading the needle
- · When replacing the needle and bobbin
- When not using the machine and when leaving the machine unattended.

Do not touch any of the moving parts or press any objects against the machine while sewing. As this may result in personal injury or damage to the machine.







Get the work checked by your Instructor.

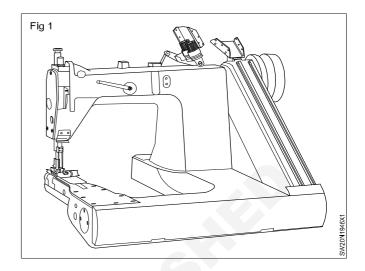
Practice on operations of feed off arm machine

Objective: At the end of this exercise you shall be able to

· identify the parts of the feed off arm machine.

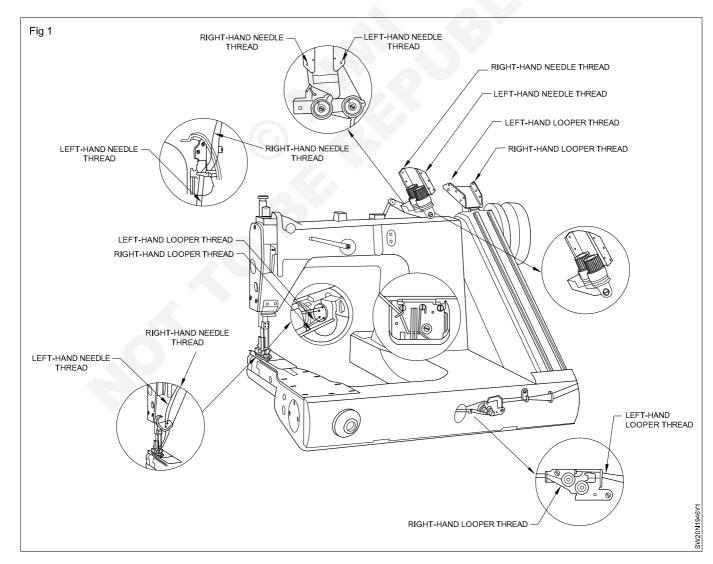
TASK 1: Identify the parts of feed off arm machine

- 1 Thread tension disc (adjust the needle thread tension by adjusting the thread tension disc).
- 2 Balance wheel Balance wheel is used to rotating by hand wheel reaching corner
- 3 Presser foot (combination presser foot)
- 4 Folder used for feed the fabric
- 5 Presser foot adjusting presser hub. (Fig.1)



159

TASK 2: Thread the feed of arm machine (Fig 1)



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.7.39

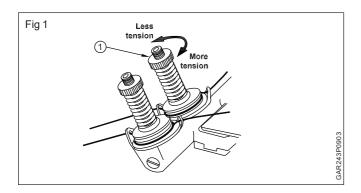
TASK 3: Adjust the thread tension and presser foot pressure adjustment

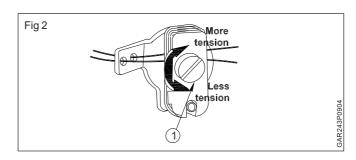
1 Thread tension adjustment

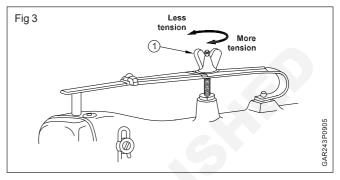
- 2 Adjust the upper thread tension properly by screwing the upper thread adjusting screw. (Fig 1)
- 3 Adjust the lower thread tension properly by turning lower thread adjusting screw. (Fig 2)

4 Presser foot pressure adjustment

5 Adjust the presser foot pressure by turning wing nut so that the pressure is just enough to feed the work positively and keep the work from slipping. (Fig 3)







Sewing Technology - Production Techniques

Sketch a ladies' tops

Objectives: At the end of this exercise you shall be able to

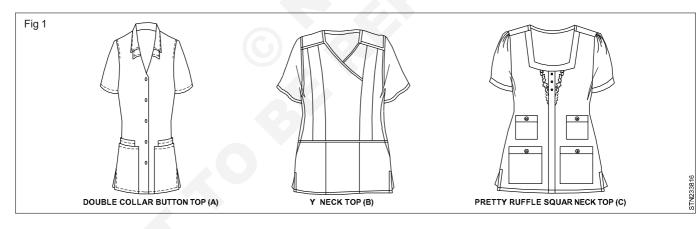
- · draw a paper pattern of ladies' tops with full sleeve and open collar
- · draw a master pattern
- · lay and cut tops on fabric
- · construct a ladies' top.

Requirements			
Tools/Instruments		Material	
ChestWaistFull lengthWaist lengthShoulderSleeve length	- 87 cm. - 68 cm. - 61 cm. - 36 cm. - 38 cm. - 87 cm.	 165 x 0.92 cm poplin, cotton, Matching color thread Needle 6 buttons Canvas 	satin - 1No. - 1No. - 1Reqd. - 1Reqd.

PROCEDURE

TASK 1: Sketch different types of tops

- 1 Sketch the different types of tops given in the following figures (Fig 1 and Fig 2 (a,L) using 2H pencil in the cartridge paper, use fine pencil lines for easy corrections.
- 2 Take necessary corrections after completing the sketches.
- 3 Draw the sketches with black fine liner.



- 4 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.
- 5 Kamez is also referred to as kamiz or qamiz. Kameez isa long shirt or tunic, with short slits at either side of them, known as the cheek. This leaves the wearer with freedom of movement and ease of wear.
- 6 The kameez is normally most embellished in a salwar kameez suit. The style is entirely dependent upon the tailors the designs that can be achieved are quite remarkable. The kameez comes in a variety of fabrics and sizes, with long or short sleeves, a wide variety of buttoned, collar, beaded, round and square necklines and with lace and piped finishes at them.
- 7 The kameez has evolved tremendously from the traditional style which usually consisted of a long dress with longsleeves. They now come in a variety of styles and designs, having been influenced by popular designers all over the world.

Kameez varies as

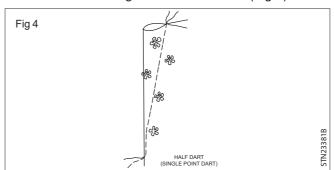
- 1 Short kameez length with short sleeves.
- 2 Short kameez with sleeveless.
- 3 Different neck styles.
- 4 Different back designs and back depth



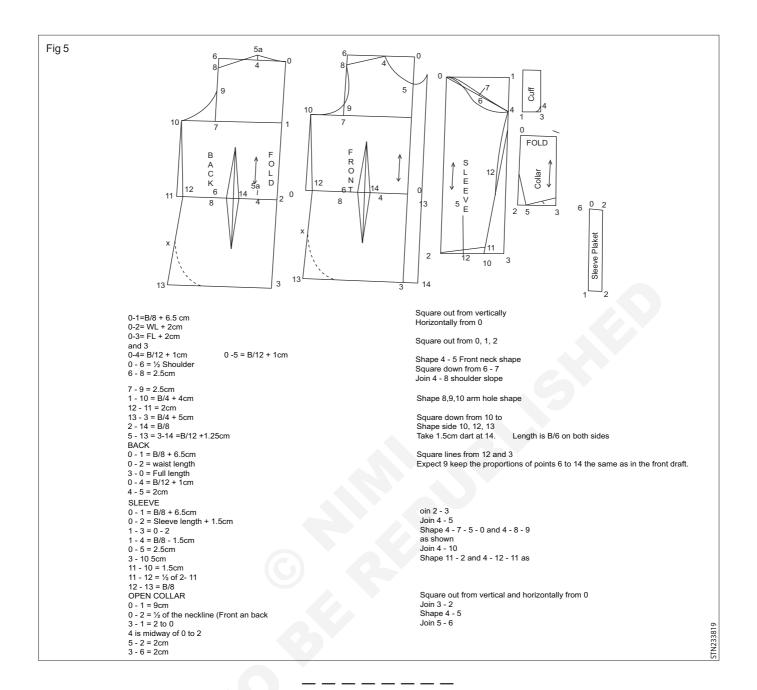
8 The salwar kameez is known all over the world. Basically traditional kameez salwar, curdier salwar kameez, princess salwar kameez, parallel salwar kameez are popular Indian salwar kameez. (Fig 3)



9 Materials like poplin, cotton, synthetic, satin, linen, silk,etc can be used for kameez. Trimming like hooks & eyes, zip, press buttons, fashion buttons, lace, fashion loops can be used. An open can be given in front or back. Slits are given both the sides. (Fig 4)



10 Darts are one of the most basic structural elements in dress making. Darts are necessary because the body is not straight and flat but curved. A dart is used to shape a garment around the contours of the body and to allow freedom of movement, comfort to the wearer and also to make the garment look attractive. Darts are used mainly on women's dresses to allow fullness at the bust, hips, shoulders and elbows.

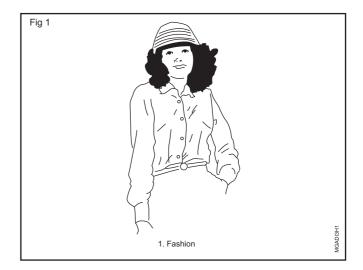


TASK 2: Draw a paper pattern of ladies' tops

- 1 Lay the brown sheet on the drafting table
- 2 Draw the drafting of Ladies' Tops Front and Back and sleeve part on the brown sheet. (Fig 1)
- 3 Draw sleeve on the folded brown sheet.

Paper cutting

1 Cut the prepared paper pattern along the following cutting lines, leaving space as specified in the instruction for preparing master pattern with paper cutting scissors.



Back part: 0 - 2a - 8 - 9 - 10 - 12 - x - 3 part: 0 - 5 - 6 - 12 - 11 - 2

Front part: 13 - 5 - 4 - 8 - 9 - 10 - 12 - x - 3 - 14 - 2 - 1 Collar: 0 - 5 - 6 - 1

Sleeve 0 - 5 - 7 - 12 - 11 - 2

Style Features	Material & Trimmings
Front full open	Cut components of Tops
Full sleeve	Front 2
open collar	back 1
	Sleeve 2
	Collar 2

CUFF	
0 – 1 = 4cm	Square out horizontally and vertically from 0
0 - 2 = 1/8 chest	Square out from 1
3 – 4 = 0.5cm	Square out from 2 and mark 3 Join 2 - 4
Sleeve placket:	
0 – 1 = 1/4 chest	Square and horizontally and vertically from 0
0 - 2 = 3cm	Square out from 1
	Square out from 2 and mark 3

TASK 3: Draw a master pattern

1 Add the following allowances to the cut paper pattern components for seam allowance and burnings.

2 Cut the excess brown sheet to get the master of Tops.

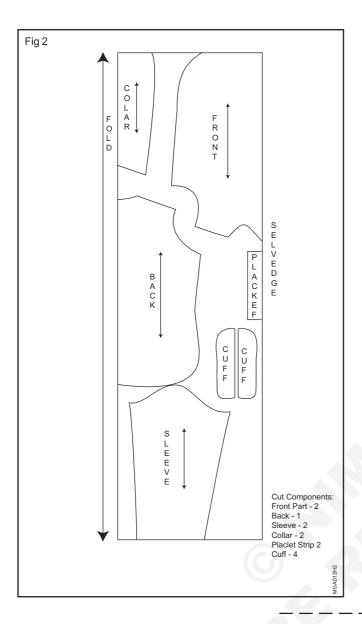
Instruction for master pattern		
Body part:	Sleeve:	Collar:
Bottom - 3cm	Side seam - 2.5cm	Top and Bottom - 1cm
Shoulder - 0.75cm	Bottom - 4cm	Side seam - 1cm
Neck - 0.5 cm	Sleeve shape - 0.5cm	
Side seam - 2.5cm		

3 Mark and cut notches at front and back darts.

4 Name the cut pattern components for future reference.

TASK 4: Lay and cut top on fabric (Fig 2)

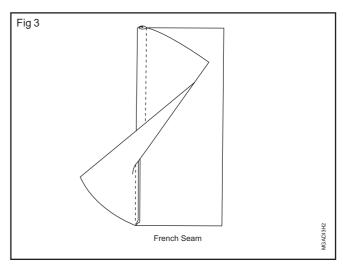
- 1 Lay the fabric on the cutting table on width wise folding with wrong side facing.
- 2 Arrange the master pattern of ladies' tops economically without wasting the fabric.
- 3 Mark the outline of all Tops components as laid with marking Chalk.
- 4 Mark the dart points using tracing wheel.
- 5 Remove the master pattern.
- 6 Cut along the marking line with sharp shears.
- 7 Pin all the layers of components together for stitching.



TASK 5: Sew a ladies' top

- 1 Stitch and finish the darts in front and back on the wrong side.
- 2 Prepare the open collar.
- 3 Join the shoulder lines of front and back part with plain seam.
- 4 Attach the collar to the neck line (with facing).
- 5 Prepare the sleeve with cuff.
- 6 Attach the sleeve to armhole with Shirt Sleeve method
- 7 Join front and back sides from sleeve to bottom with French seam.
- 8 **French seam** (Seam finish for tops and shirts used in loose woven fabrics). The French seam is stitched twice first from the right side and then from the wrong side. Take two sides of fabric with wrong side together. Stitch at a distance of 3mm from the edge on the right side. Trim the seam allowance.
- 9 Press the seam allowances both to one side. Fold right sides together, with stitched line exactly on the edge

fold and press again stitch a seam line 0.6cm away from the edge. (Fig 3)



10 Turn hem of body part and finish.

11 Cut and stitch to button holes on right front. First buttonhole shall be at a distance of B/12 + 1.5 cm from the top edge of centre front line. Cut the other buttonholes at a distance of equal intervals.

Buttonholes to be marked at a distance of 1.5cm away from the front edge.

- 12 Fix 6 buttons on the left front part according to the measurement of buttonholes
- 13 Finish and press the garment.

Skill Sequence

Attaching rolled collar

Objective: This shall help you to

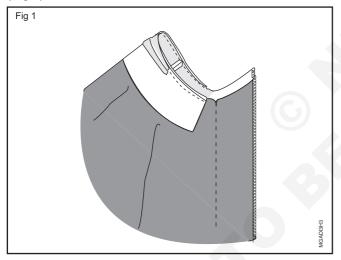
• attach a rolled (open) collar to the neck line.

Over lock the long edges of facing. Place the underside of collar right side of body part together, leaving 1.25 cm from the front edge.

Tack collar ends on the step marks. Baste collar with neckline up to the shoulder seam.

Clip the shoulder seams before the top layer of collar seam allowance.

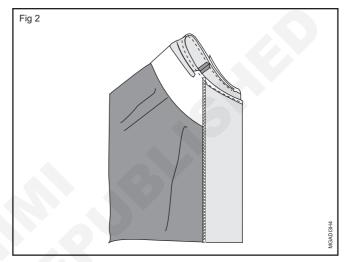
Lift the top layer of collar and baste lower layers along the back neck from one shoulder seam to the other. (Fig 1)



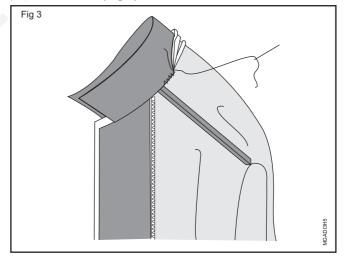
Turn the facing from both sides on the centre front line over the collar and stitch from one end to the other end of neck line. (Fig 2)

Leave upper layer of collar lifted. Stitch only on the lower layers (as basted).

Turn the facing to the inner side of the garment. Pull out the corners of step ends properly.



For finishing back neck, press seam allowance of back neck inside the collar. Turn the raw edge of the seam allowance of upper layer of collar inside and stitch along the previous seam. (Fig 3)

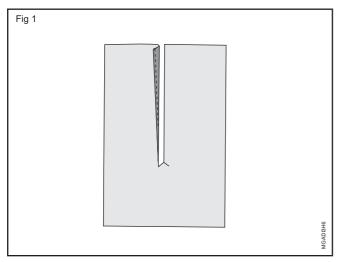


One piece placket

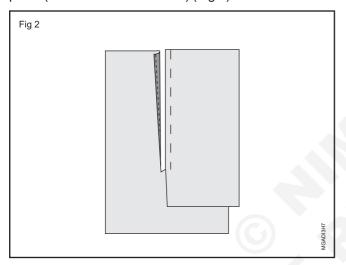
Objective: This shall help you to construct a one-piece placket (sleeve).

Take one piece of fabric 13 x 6 cm (facing) and sleeve. Mark 10cm long line on center of sleeve (placket opening) and slash. Clip 0.75 cm diagonally at the end.

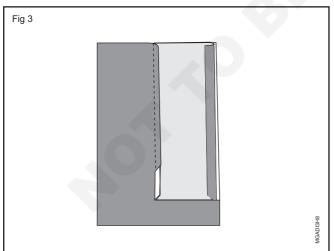
On the top edge turn 0.5 cm twice on the wrong side. Taper towards the clip side and machine stitch. (Fig 1)



Baste facing along the unfinished edge of the placket opening, right side of facing with wrong side of the sample piece (0.5 cm seam allowance) (Fig 2)

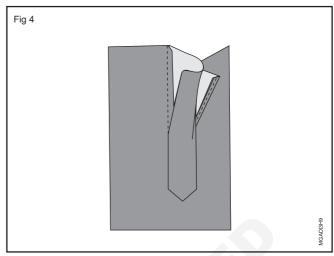


Bring facing out on the right side of the sample piece and turn the raw edge of facing by 1 cm. (Fig 3)

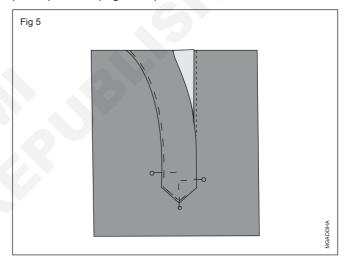


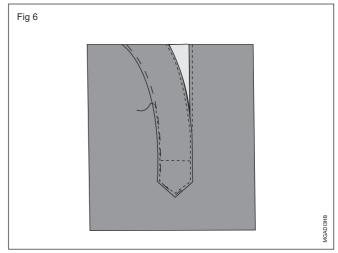
From lower end of facing close to the stitching line cut off 3 cm in width and 1 cm in length to reduce bulk.

Roll over the facing on its previous seam, make a fold on the centre line and press. (Fig 4)



Turn the corners and form a peak at the centre of the placket end and press. Finish the placket end as in two-piece placket. (Fig 5 & 6)





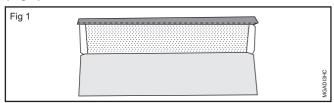
Attach cuff with sleeve

objective: This shall help you to

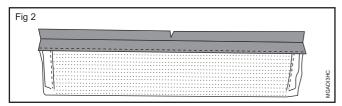
· prepare and fix cuff to sleeve bottom.

Place cuff pattern over fusing and cut tow pieces. Leaving seam allowance on three sides place fusing piece on wrong side of the material.

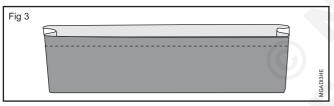
Turn the longer edge of seam allowance inside. Baste and stitch 0.75 cm away from edge on right side. (Fig 1)



Fold cuff on centre line, right sides together. Baste and stitch from fold side leaving 2 mm unstitched at the folded edge and lock the stitch. (Fig 2)



Turn the cuff inside out (take care of corner). Cut notch at centre of raw edge. Press (Fig 3)

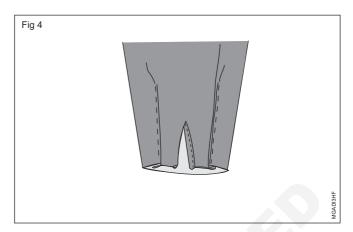


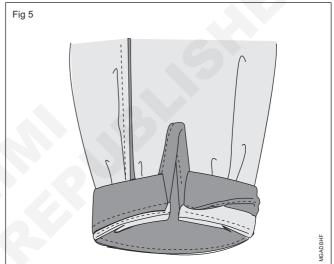
Press the placket inside and measure the sleeve bottom. The difference between cuff length and sleeve bottom is the measurement for two pleats. Prepare 1st side pleat at side seam. Prepare another side pleat at the same distance on the other side placket. (Fig 4)

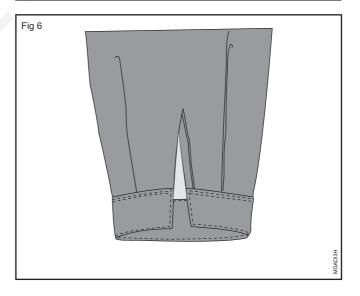
Baste and stitch underside of cuff (infused) to wrong side of sleeve bottom matching centre marks (Fig 5)

Turn the cuff unit up and press seam allowance inside the cuff. Then press the cuff from folded edge.

Baste the sleeve bottom along with cuff edge through all layers. Stitch 2mm away from edge along sleeve bottom and cuff. Lock the stitch and press. (Fig. 6)







Attach armholen with sleeve

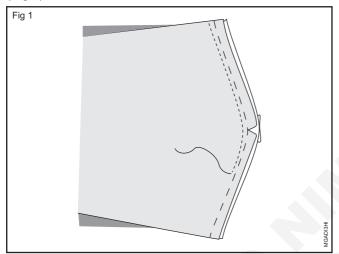
Objective: This shall help you to

· the sleeve to armhole with shirt-sleeve method.

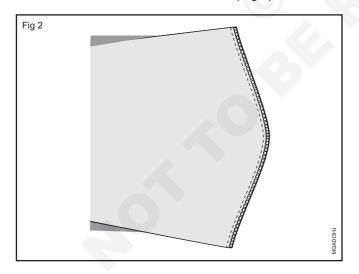
In this method the side seams of bodice and sleeve are still unstitched so that two flat pieces are joined. Unfold bodice on shoulder seam line and place it flat. With right sides together, match the centre of sleeve and shoulder seam and pin sleeve to armhole.

Take care to select the appropriate sleeve so that shape of the sleeve crown and armhole are matching.

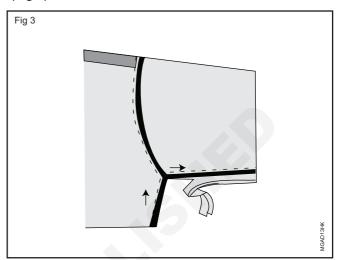
Control ease in sleeve with pins. Baste and stitch. (Fig 1)



Finish seam allowance with overlock. (Fig 2)

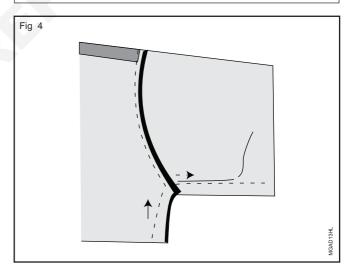


With right sides together, match and pin underarm seams. First baste then stitch in one continuous seam from bottom of the garment to bottom of the sleeve. (Fig 3)



Hem the seam allowance (specially to reduce bulk at cross point). Finish the seam allowance with overlook. (Fig 4)

Take care for proper cross seam finishing.



Sew-through buttons

Objective: This shall help you to

· attach sew-through buttons by hand.

Take tops front right side. Mark button position at regular intervals.

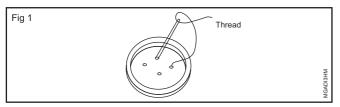
Insert two strans of thread into the needle.

Hold the fabric by left hand and insert the needle from right side of the fabric at mark, right angled to the fabric. Pull the needle with thread leaving 1 cm thread at the right side.

To secure thread make stab stitch: hold the thread end with left hand thumb and insert the needle into the fabric very near (i.e. 1 mm) to the 1st insertion from wrong side.

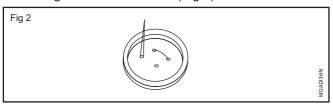
Repeat the last two steps. Cut loose thread end from the upper side. Centre the button upon the mark directly on the stab stitch.

Bring needle through the button from one hole and back into the fabric by other hole and pull the thread. (Fig 1)



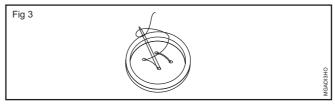
Repeat the process twice.

Bring the needle from the underside of the fabric through the remaining holes of the button. (Fig 2)



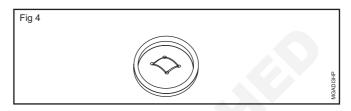
Then bring back into the fabric through the other hole left. (Fig 3)

Repeat the step four more times.

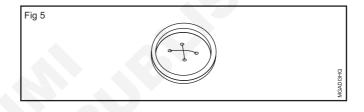


To secure the thread, insert the needle into the thread of the last stitch below the fabric, leave a loop, pass the needle through the loop and pull the thread. Repeat the process one more time.

Fix another button on a mark on the cloth in the same way. Attach 2 buttons in square shape. (Fig 4)



Attach 1 button crosswise. (Fig 5)



One-bar-one-fan button hole

Objective: This shall help you to

· prepare one-bar-one-fan button hole by hand.

Take top left side. Mark button hole position according to the button position. Give a slash on the button hole mark. Place a row of machine stitches around a row of machine stitches around to slash line. (2mm away from slash line) (Fig 1)

Machine stitches must be approx. 6 stitches per 1 cm.



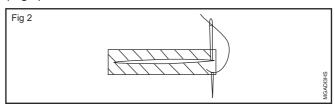
Set the buttonhole scissor according to the buttonhole, and then cut along the slash line with buttonhole scissors using one thread of fabric as a guide.

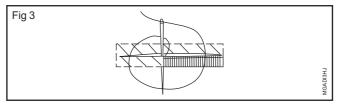
Scissors must be sharp and pointed.

Overcast the raw edges of the slit by hand with single thread, keeping 3 stitches per cm and length of 2 mm. (Fig 2)

Hold the fabric by left hand and start filling the over casted edge from one end by buttonhole stitches covering the

machine stitched line. Take the stitches close side by side at a regular distance maintaining even tension in each stitch. (Take suitable thick thread or twisted double thread.) (Fig 3)

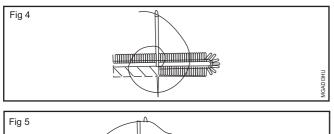


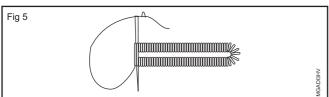


At the outer end spread, 5 to 7 stitches in fan shape. (Fig 4)

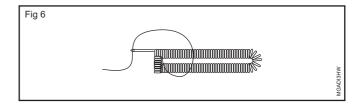
Fill the remaining cut by buttonhole stitches. On the end make two stitches taking full width of both worked out edges for bar tacking. (Fig 5)

Fill bar tack stitches by buttonhole stitches. (Fig 6)





While filling bar tacks with buttonhole stitches, the needle should catch one thread of the previous buttonhole stitches of either side.



Sketch a ladies' suit

Objectives: At the end of this exercise you shall be able to

- · sketch different types of ladies' suit
- · design a suit for ladies.

Sketch different types of ladies' suit

Sketch the different types of ladies' suit in the following figures. (Fig 1 to Fig 4)

Using 2H pencil in the cartridge paper.

Use fine pencil lines for easy corrections.

Make necessary corrections after completing the sketches.

Draw the sketches with black fine liner.

Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

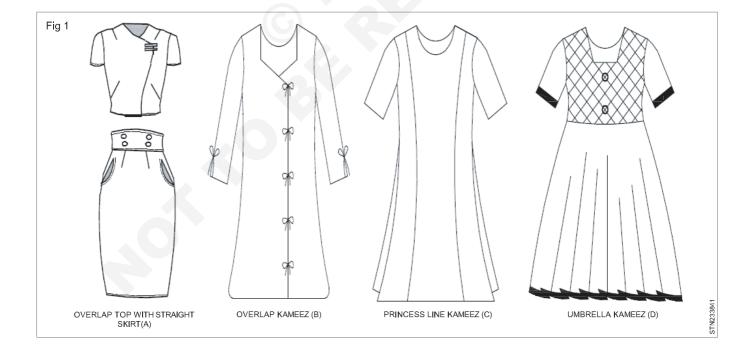
Design a suit for ladies

Design a suit according to the theme "Ladies".

Decide the fabrics suitable for the designed suit.

Sketch the designed suit with its detailed style features.

Apply suitable colours to the garment with proper effects.







Apparel : Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.40

Kameez with princessline - Style I

Objectives: At the end of this exercise you shall be able to

- · draft and cut a kameez with princess line
- sew a kameez
- · draft and cut a salwar
- · sew a salwar.

Draft and cut a kameez with princess line

Material: 235 cm x 92 cm poplin, cotton, any synthetic

material

Measurements

Full length = 102cm

Chest = 86cm = 72cm Waist length Shoulder = 34cm Sleeve length = 12cm

PROCEDURE

TASK 1: Draft and cut a kameez with princess line

- 1 Lay the brown sheet on the drafting table with its wrong side facing upwards.
- 2 Draw the drafting of kameez front and back body part and sleeve part on brown sheet. (Fig 1)
- Give flare as show (Fig 1).
- Draw sleeve on the folded brown sheet.
- 5 Use L-square and French curve / curve stick for perfect shape of drafting.



Measurements	Material
Princess line	Cut components of princess line
Leg-o-mutton sleeve	Kameez
Back Zip open	Center front - 1
	Center back - 1
	Side piece 4
	Sleeve 2
	Placket piece - 2
	Facing piece 2
	10 cm zip - 1
	Notcher - 1

Pattern cutting

Cut the prepared paper pattern along the following cutting lines, leaving space as specified in the instructions for preparing master pattern.

Center piece front = 1 - 24 - 19 - 21 - 18 - 22 - 12 - 11 -13

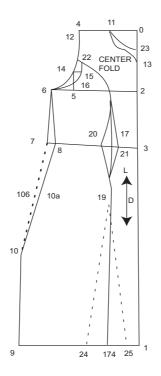
Center piece back = 1 - 24 - 19 - 21 - 18 - 22 - 12 - 11 -23

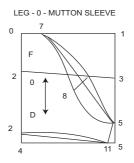
Sleeve front line = 0 - 7 - 8 - 10 - 6 - 11 - 12

Sleeve back line = 0 - 7 - 9 - 6 - 11 - 12

Fig 1

FRONT & BACK





Front and Back

0 - 1 = Full length, 0 - 2 = B/4 - 2.5cm

0 - 3 = waist length, $0 - 4 = \frac{1}{2}$ shoulder

2 - 6 = B/4 + 2.5cm, 7 - 8 = 1.5cm

1 - 9 = B/4 + 15cm, 9 - 10 = B/3

 $10 - 19a = \frac{1}{2}$ of 8 - 10, 10a - 10b = 1cm

0 - 11 = B/2, 4 - 12 = 1.5cm

 $0 - 13 = B/8 \ 5 - 14 = 1/3 \text{ of } 12 - 5$

14 - 15 = 1.25cm , 5 - 16 = 2cm

3 - 17 = B/12, + 1.25cm

1 - 17a = B/12 + 1.25cm

3 - 17 = 17 - 21 = 1.25 cm

DART

17 - 18 = 17 - 19 = c/6

17 - 20

17 - 21 = 1.5cm

 $12 - 22 = \frac{1}{2}$ of 12 - 5

17 - 20 = 17 - 21 = 1.5 cm

Back

0 - 23 = 7cm or to taste

23 - 23a = 10cm or to taste for back open

LEG - O - MUTTON SLEEVE

0 - 1 = B/8 + 6.5cm

0 - 2 = 6.5cm, 1 - 3 = 0 - 2

2 - 4 = 3 - 5 = Sleeve length

3 - 6 = B/8, 0 - 7 = 4cm

8 is mid point of 6 - 7

8 - 9 = 1.5cm, 6 - 10 = 2cm

5 - 11 = 2.5cm, 4 - 12 = 1.5cm

Square out horizontally and vertically from 0

Square out from 2,3 and 1

Square down from 4 and mark 5

Square down from 6 and mark 7

Join 6 - 8

Join 8 - 10

Shape 8 - 10b - 10

Join 11 - 12 (shoulder slope)

Shape 11 - 13 for front neck line.

Square out from 14

Join 12, 15,16,6 for front armhole

Shape

Join 17 - 17a

Join 18 - 19 and 17a

Join 18 - 20 - 19, 18, 21, and 19

Shape 12 - 18 for princess line.

Outlines, princess line are same as front.

Shape 11 - 23 for neck.

Join 12,22,6 for armhole shape

Square out horizontally and vertically from 0

Join 6 - 7

Join 0,7,9,6 for back sleeve

Join 0, 7, 8,10,6 front sleeve shape

Join 6 - 11

Shape 11 - 12

Master pattern

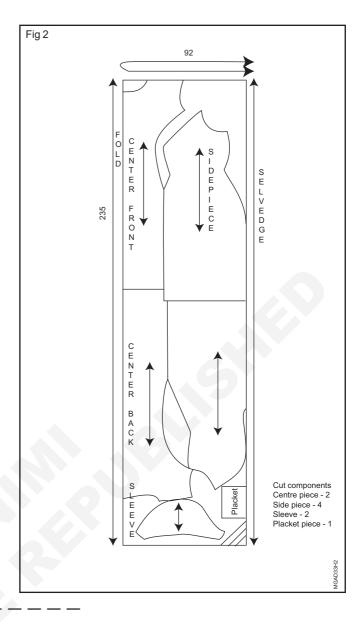
1 Add the following allowances to cut paper pattern components for seam allowances and turnings.

Instructions for master pattern			
Center piece	Side piece	<u>Sleeve</u>	
Front and Back	Front and Back	Top - 1cm	
Neck and armhole	armhole0.75cm	side - 2.5cm	
Shoulder - 1cm	Princess line 1cm	bottom - 2cm	
Sides - 1cm	side - 2.5cm		
Bottom - 2.5cm	Bottom - 2.5cm		

- 2 Cut the excess brown sheet to get the master pattern of kameez with princess line.
- 3 Mark and cut notches on the seam allowances and folding.
- 4 Name the cut components for future reference.

Layout and cutting

- 1 Lay the fold fabric on width on the cutting table with their wrong side facing upwards.
- 2 Arrange the master pattern of princess line kameez economically without wasting the material. (Fig 2)
- 3 Mark the outline of all the kameez components as lay using a marking chalk.
- 4 Mark the back open position at back center piece on the fabric.
- 5 Remove the master pattern. Transfer the mark to the lower layer of the fabric.
- 6 Cut the components and pin all the layers together.



TASK 2: Sew a kameez

- 1 Join center and sidepieces at the princess line with princess seam.
- 2 Finish the front neck with facing.
- 3 Finish the back open with zipper placket.
- 4 Stitch zipper placket with the use of zipper foot machine attachment.
- 5 Finish the back neck with facing.
- 6 Join front and back shoulder together in the wrong side.
- 7 **Prepare leg o mutton sleeve:** Make two rows of case stitches at upper sleeve shape, 1st at a distance of 0.5cm, 6-7cm from the raw edge and stop also 6-7cm before the other edge. Leave long threads.
- 8 Pin the center of sleeve crown on shoulder, with right sides together and leaving seam allowance.

Take care that front sleeve and front bodice match.

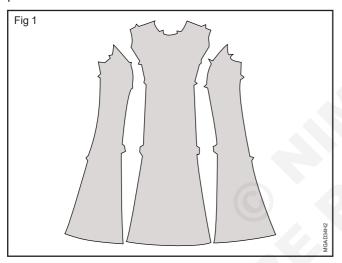
- 9 Gather on sleeve crown on both sides of shoulder seam while pulling the long thread ends from both sides.
- 10 Pull until the girth of sleeve is equal with the girth of armhole.
- 11 Baste sleeve to bodice armhole, then stitch with machine.
- 12 Finish the sleeve bottom by turning and stitch it.
- 13 Join from sleeve bottom side to front and back sides together with seam allowance leaving slit opening on both sides on marks
- 14 Finish the slit If slit is not necessary the stitch the front and back sides up to the bottom.

Objective: This shall help you to • join princess cutting line.

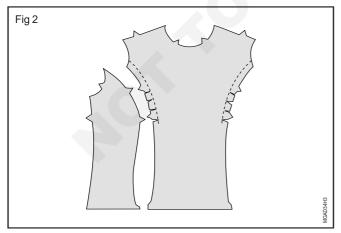
Princess seams (Fig 1)

Princess seams are shaped seams designed to fit the body's contours. Beginning at shoulder or arm-hole, front or back, and running lengthwise, they may go just to the waistline seam or extend all the way to the hem. A typical princess seam will curve outward to accommodate the fullest part of the bust or back, then inward to conform to the waist, and finally outward again to fit over the hips.

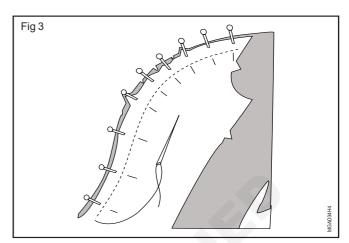
Careful checking of fit, pattern adjustments and marking are necessary if the curves of the seam are to follow the contours of the body. Proper use of clipping and notching will permit the curves to lie smoothly against the body. Pressing should be done over a tailor's ham: its rounded shape helps to retain and mould curves as seam is pressed.



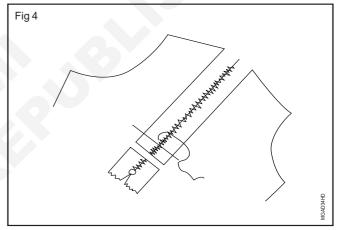
Place a row of reinforcement stitches just inside the seam lines of the centre panel. From the top edge to just below bottom notch. Clip between notches.(Fig 2)



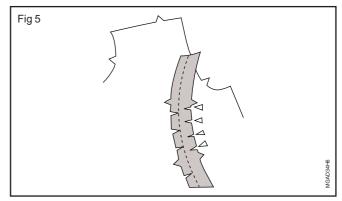
With side panel on top. Match and pin the seam line spreading the clipped edge to fit. Make additional clips if necessary, Tack in place. (Fig 3)



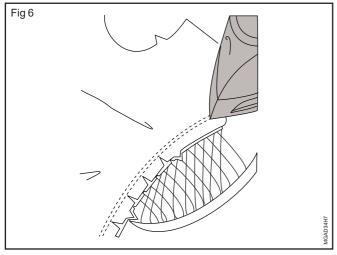
With clipped side up stitch on the seam line beyond the ends of the clips being careful to keep the underside smooth. Backstitch at both ends of seam. (Fig 4)



Remove tacking and finger-press the seam open. Notch out fullness from the inward curve. Wherever possible, stagger positioning of clips and notches. (Fig 5)

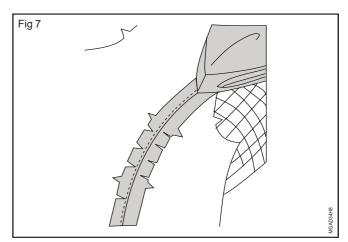


Close seam and place over a tailor's ham. With tip of iron, press seam flat. Do not press into the body of the garment, especially in the curved areas.(Fig 6)



Press the seam open over a tailor's ham. Reposition the seam whenever necessary to keep the curve of the ham matched to the curve of the seam. (Fig 7)

Every princess seam consists of two separate edges curved in a precise relationship to each other. When joined, the seam shapes itself around the contours of the body. An entire dress front, as illustrated above and at left, will have a centre panel and two identical side panels, together producing a princess seam on each side of the garment front. Transfer all markings carefully to fabric before removing pattern. (Fig 8)



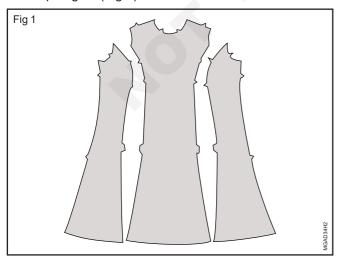


Zipper Placket

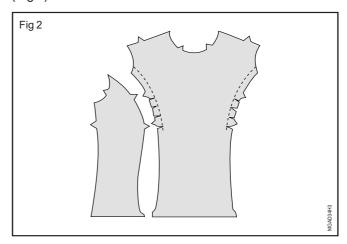
Objective: This shall help you to • stitch a zipper placket.

Take the back part and take a zipper of 10cm length. Mark 10cm for slash on the centre line from right side of the cloth. Cut a strip of 13*5cm (length of strip should be 3cm more than the zipper length).

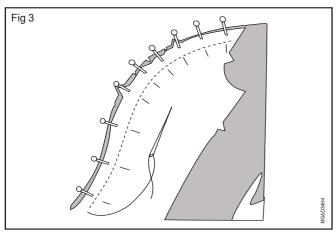
Fold and press strip on the centre. Match the centre line of strip with back part with the right sides together. Baste on the slash mark through both the layers and all around the strip edges. (Fig 1)



Stitch from left side round the slash mark at a distance of teeth width plus 2cm. Slash on slash mark, stop 1cm before the end and clop to the corners. Remove the basting (Fig 2)

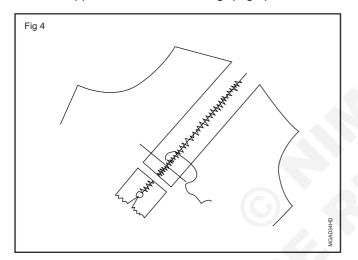


Turn the strip pieces towards wrong side of the back part. Press and fix with basting. Set the zipper on slash line. Baste zipper below the slash edges and stitch all around. (Fig 3)



How to adjust the zipper length? Zips are available in different length, but they will not always match the required slit length of the placket. In that case you have to use a zipper longer than the placket length and to shorten it.

Shorten zipper at the lower end. Tack at the required length and trim zipper 1.5cm below tacking. (Fig 4)

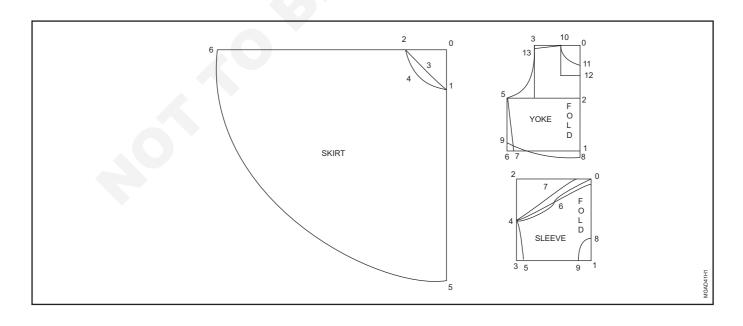


Draft and cut a kameez (Umbrella with yoke style) Paper pattern drafting

- 1 Lay the brown sheet on the drafting table.
- 2 Draw the drafting of body part, skirt part and sleeve part of umbrella with yoke on the brown sheet, using measuring tape and L square. (Fig 5)



3 Use L-square and French curve / curve stick for perfect shape of drafting.



Yoke part

0 - 1 = Bodice length

0 - 2 = B/4

 $0 - 3 = \frac{1}{2}$ shoulder

2 - 5 = B/4 + 4cm

6 - 7 = W/4 + 2.5cm

1 - 8 = 2cm

6 - 9 = 2cm

0 - 10 = B/12

0 - 11 = B/12 + 1cm

0 - 12 = B/2 + 4cm

3 - 13 = 1.5cm

Skit part:-

0 - 1 = W/6 + 2cm

0 - 2 = W/6 + 2cm

3 - 4 = 2cm

1 - 5 = full length - bodice length

2 - 6 = full length - bodice length

Sleeve:-

0 - 1 = sleeve length

0 - 2 = B/4

2 - 4 = B/8

3 - 5 = 1.5cm

6 - 7 = 1.5cm

1 - 8 = 5 cm

4 is square down from 3

6 is square down from 5

Shape 8, 9 for bottom.

Shape 10,11 for back neck

Shape 10.12 for front neck

Join 10 - 13

Join 1 - 2

3 is mid point of 1-2

Shape 5, 6

3 is square down from 2

Join 0 - 4

6 is mid point of 4 - 0

Shape 4, 7, 0 for back arm

Shape 4, 7, 0 for front arm

Shape 8, 9

Pattern cutting

Cut the prepared paper pattern along the following cutting lines, leaving space as specified in the instructions for preparing master pattern with paper cutting scissors.

Body part back = 11 - 10 - 13 - 5 - 9 - 8

Body part front = 12 - 10 - 13 - 5 - 9 - 8

Skirt part = 2 - 4 - 1 and 6 - 5

Sleeve back = 0 - 7 - 4 - 5 - 9 - 8

Sleeve front = 0 - 6 - 4 - 5 - 9 - 8

Master pattern

1 Add the following allowances to the cut paper pattern components for seam allowances and turnings

Instructions for master pattern

Body part :-Shoulder - 7.5cm

Armhole - 7.5cm

Neck - 0.5cm

Side seam - 2.5cm

Bottom - 1cm

Skirt part:-

Top = 0.75cm

Bottom = 3cm

Sleeve:-

Top = 5cm

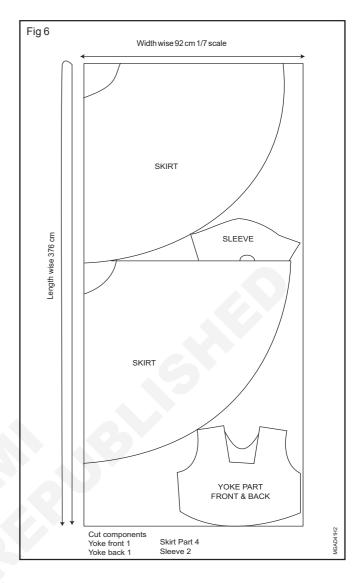
Side seam = 2.5cm

Bottom = 0.5cm

- 2 Cut the excess brown sheet to get the master of umbrella with yoke.
- 3 Name the cut pattern components for future reference.

Layout and cutting

- 1 Lay the open fabric on the cutting table on length wise folding with wrong side facing.
- 2 Arrange the master pattern of umbrella with yoke economically without wasting the fabric. (Fig 6)
- 3 Mark the outline of umbrella with yoke components as laid with marking chalk.
- 4 Remove the master pattern.
- 5 Cut along the marking line with sharp shears.
- 6 Pin all the layers of components together for stitching.



Style Features	Material & Trimmings
Umbrella with yoke	Cut components of kameez
Round shape	Front and back yoke
Bottom at sleeve	Umbrella skirt
Center with piping	Sleeve 2
	Material color thread
	Needle, Hook - 1

Sew a kameez (Umbrella with yoke style)

- 1 Finish the front neck with shaped facing.
- 2 Finish the back neck with faced placket.
- 3 Join front and back shoulder.
- 4 Finish the sleeve bottom center round shape with binding.

Then stitch the bias binding on bottom from side to center and extend the bias strip to 10 to 15cm on both sides to tie the ends. Finish the raw edge with tube bells.

5 Stitch the sleeve side seam.

- 6 Join front and back yoke sides.
- 7 Set the sleeve on yoke with set in sleeve method.
- 8 Join umbrella skirt sides.
- 9 Finish the skirt bottom with 3cm wide circular hem.
- 10 Baste and stitch the skirt with yoke part matching centre and sides.
- 11 Stitch hook end eye on placket.
- 12 Finish the raw edges of seam allowance with over lock stitch.
- 13 Trim off thread end.
- 14 Finish and press the garment.

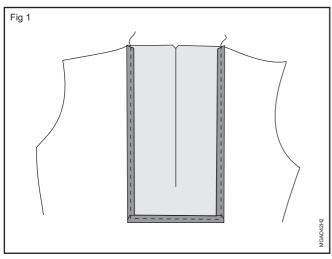
Faced placket

Objective: This shall help you to • construct a faced placket.

Take the body part and facing cloth.

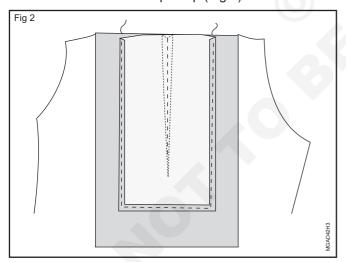
Draw 10 cm long lines on the right side of the body part and on the wrong side of the facing piece. Mark in the center of both

Turn the edge of facing by 1 cm and leave the top edge. (Fig 1)

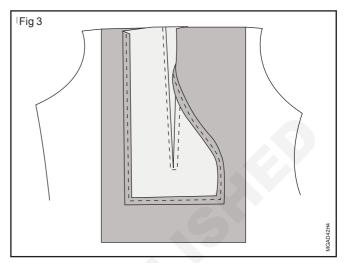


Place facing piece on sample piece with right sides together. Match the centre line in v-shape.

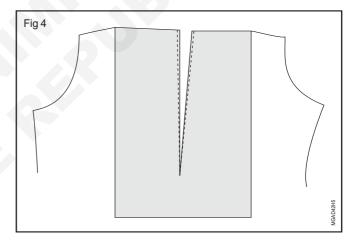
Stitch over the lines, which from v-shape. Start on top, stitch down to peak point, take 2 stitches horizontally and stitch back on other line upto top.(Fig 2)



Slash on the centre line leaving 2 mm at peak point. Turn the facing on the wrong side and press it gently to make out the edge (Fig 3)



Stitch top seam from right side on the edges of the placket outline (Fig 4) trim the ends of threads and press it.



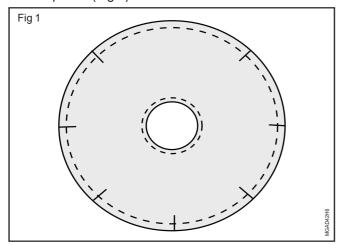
Circular hem

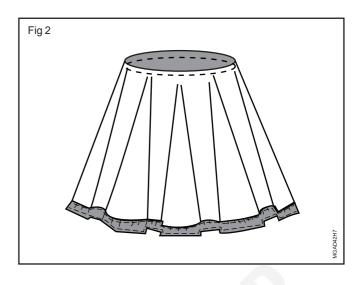
Objective: This shall help you to • prepare a circular hem.

- 1 To hem the flare of an umbrella-cut skirt in kameez you have to maintain the width of the bottom.
- 2 Divide the flare into 8 equal parts by folding. Set marks on bottom +6 cm long. Mark fold for hem ,3 cm from bottom edge.(Fig 1)
- 3 Fold the material by 0.5 cm (matching marks) and make ease stitch on folded edge.
- 4 Turn the raw edge 2.5 cm inside . match the marks of turned edge with marks of lower layer. In this way some gathers will appear for the adjustment of girth. Pin in the

middle of turning on all the marks. Slightly pull threads of easy stitching and distribute the material evenly to adjust the excess material. Baste and press on fold.

5 Baste the whole girth over turning (be careful the marks are matching). Remove pins and press. Hem with narrow hemming. Remove basting and ease stitches and press. (Fig 2)





Sketch a ladies' nightwear

Objectives: At the end of this exercise you shall be able to

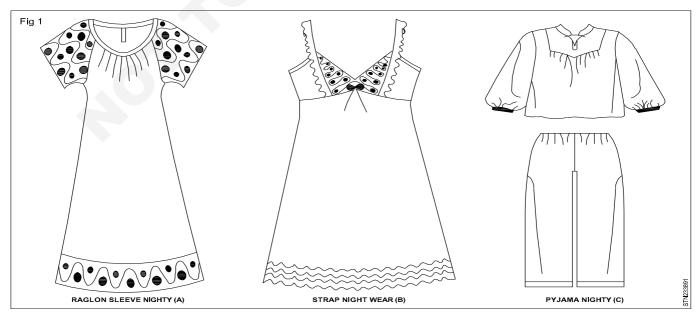
- · sketch different types of nightwear
- design a nightwear.

Sketch different types of nightwear

- 1 Sketch the different types of nightwears given in the following figures(Figs 1&2) using 2H pencil in the cartridge paper.
- 2 Using fine pencil lines for easy corrections.
- 3 Make a necessary corrections after completing the sketches.
- 4 Draw the sketches with black with fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

Design a nightwear

- 1 Design a nightwear according to the theme "Ladies".
- 2 Decide the fabrics suitable for the designed garment.
- 3 Sketch the designed garment with its detailed style features.
- 4 Apply suitable colours to the nightwear with proper effects



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.40

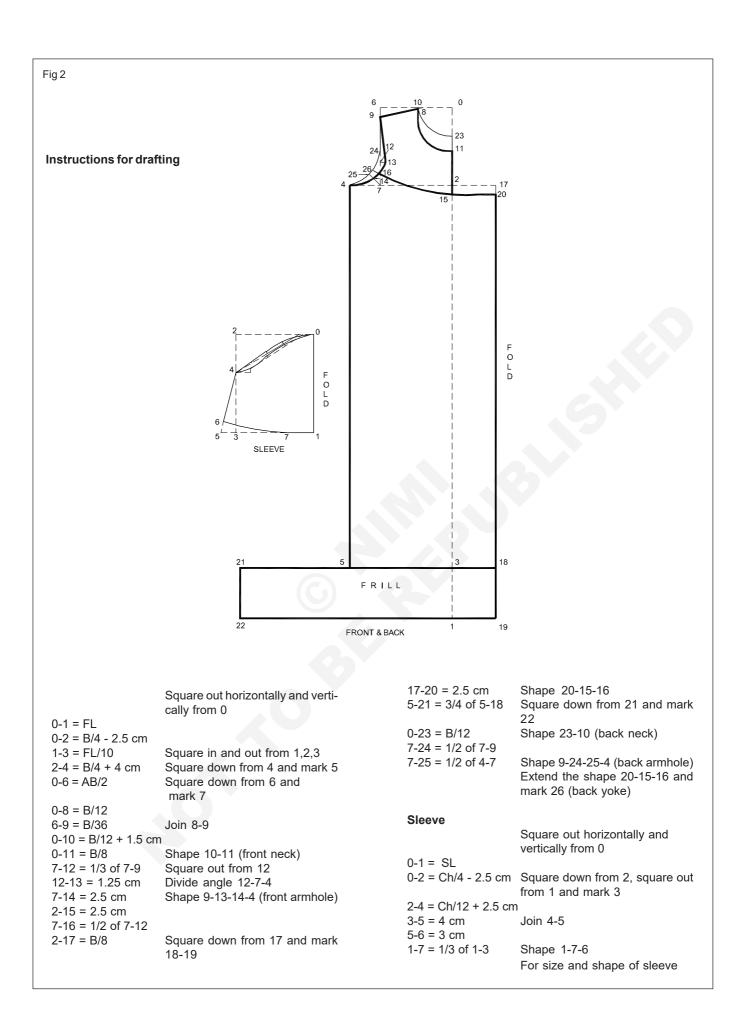


Objective: At the end of this exercise you shall be able to

· draft and stitch a nighty.



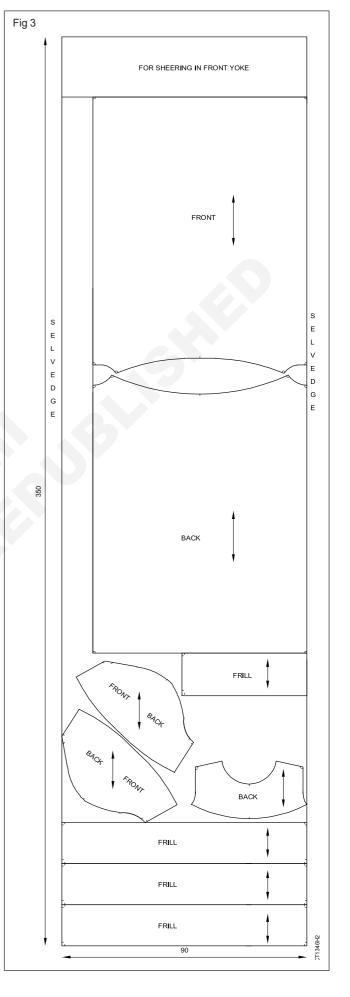
Yoke		Frill	
neck	no allowance	top and at side	1 cm
shoulder	1 cm	bottom	1.5 cm
armhole	0.75 cm		
		Sleeves	
Skirt		top	0.75 cm
top	1 cm	side	?
armhole	0.75 cm	bottom	1 cm
side and bottom	1 cm	= = 440111	



Reduce the sleeve length according to the length of lace.

Instructions for master pattern (Fig 3) Cut components Front yoke piece 1 Back yoke 1 Skirt 2 Sleeve 2 Frill 4

- 1 Prepare master pattern.
- 2 Layout on cloth, mark and cut front yoke piece for preparing shirring (Length of front yoke piece = yoke length + 5 cm. Width of front yoke piece = approximately 2.5 times yoke - width + seam allowance).
- 3 Prepare the shirring piece and lay the front yoke pattern on it, mark and cut.
- 4 Join the front and back shoulders together.
- 5 Finish the neck line with binding.
- 6 Finish the yoke bottom with binding.
- 7 Cut lace 1½ cm longer than the round shape measurement of yoke.
- 8 Stitch the side seam of skirt.
- 9 Prepare the frill with gathers.
- 10 Set the gathers in frill according to the skirt girth. Baste skirt and frill together and stitch it.
- 11 Stitch another row of stitches on right side at the joint of frill and skirt.
- 12 Make gathers on the top of skirt in front and back according to the width of yoke.
- 13 Set and baste the bottom edge of yoke on right side of skirt gathers, take care that the balance marks match.
- 14 Stitch in the crevice of the first stitching of binding.
- 15 Finish sleeve bottom with lace.
- 16 Prepare and set the sleeves in armhole.
- 17 Finish and press.

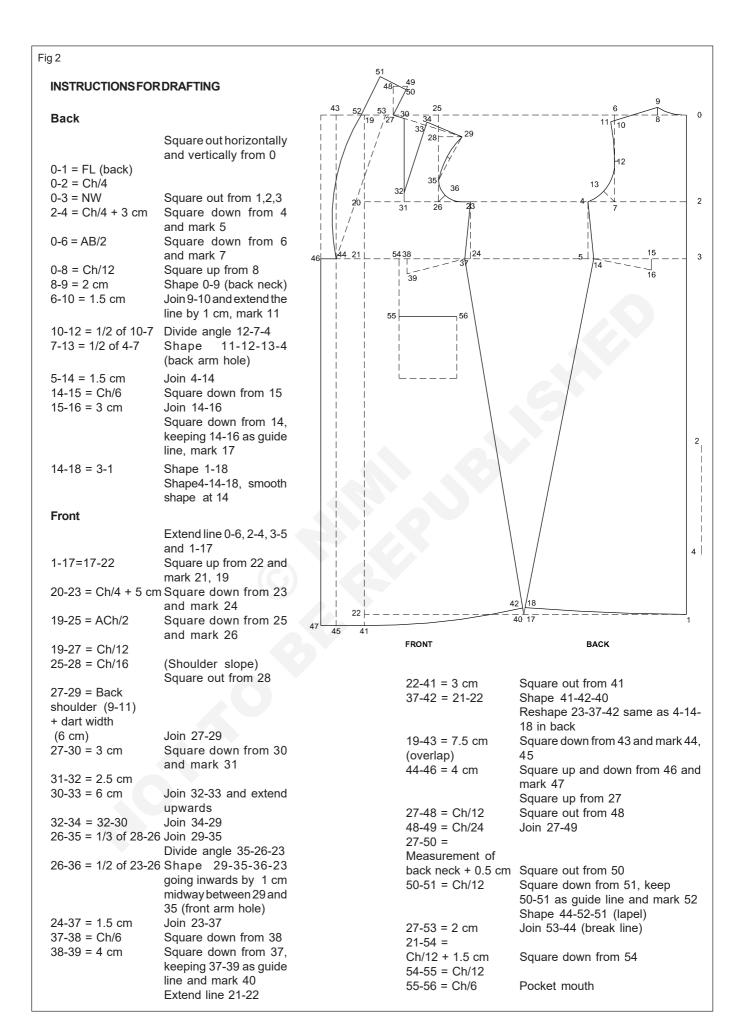


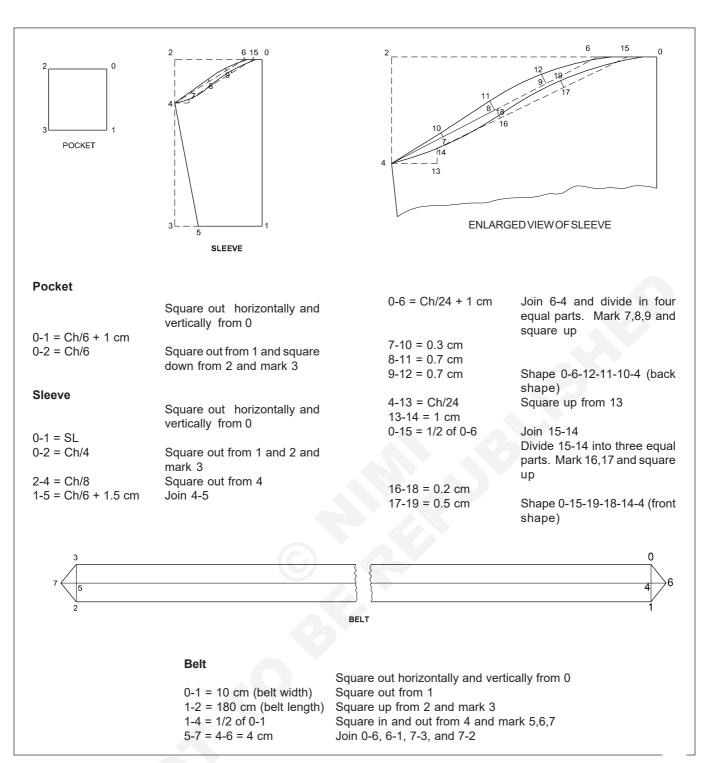
Construct a ladies' nightsuit - Style II

Objective: At the end of this exercise you shall be able to • draft and stitch a house coat with a shawl collar.



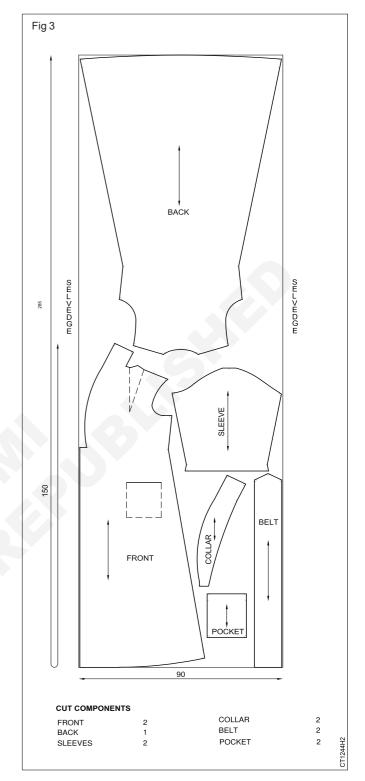
Measurements	Material	
Length (waist to ankle) 60 cm Full length (back) = 132 cm Full length (front) = 135 cm Natural waist = 38 cm Chest = 92 cm Across back = 38 cm Across chest = 39 cm Sleeve length = 44 cm	4.40 x 0.90 m Poplin/Terry fabric	





INSTRUCTIONS FOR MAS	TERPATTERN	Pocket	
Front and back 0.75 cm on outer shape back	at collar area, 1 cm on collar	sides + bottom pocket mouth belt	0.75 cm 3 cm 0.75 cm all around
shoulder and armhole	0.75 cm		0.75 cm an around
sides	2.5 cm	Collar	
bottom	6 cm	0.75 cm at outer edge	
Sleeves		1 cm at neck edge.	
top	0.75 cm		
sides	2.5 cm		
sleeve hem/turning	3 cm		

- 1 Prepare the pattern according to the pattern draft and the instructions for drafting. (Fig 3)
- 2 Layout the components on fabric and cut. (Fig 3)
- 3 Prepare patch pockets and attach them on both front sides.
- 4 Finish the shawl collar.
- 5 Stitch the side seams of house coat.
- 6 Stitch sleeves and attach them with set-in sleeve method.
- 7 Hem the bottom of house coat.
- 8 Prepare belt.
- 9 Finish and press.

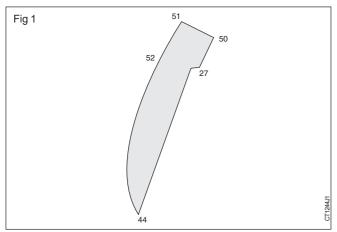


Shawl collar

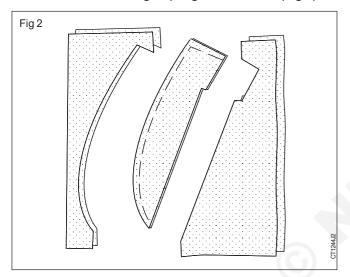
Objective: This shall help you to

• prepare shawl collar.

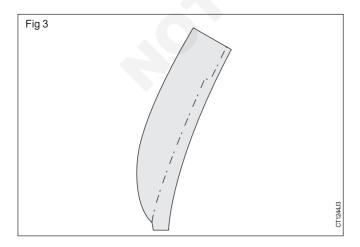
In the shawl collar the upper collar, the lapel and the front facing are different parts in one piece of pattern. The under collar is part of the garment component, it is not a separate piece. Prepare inter lining piece. Copy the collar component pattern on brown paper, i.e. 27-50-51-52-44. Join 44-27. (Fig 1)



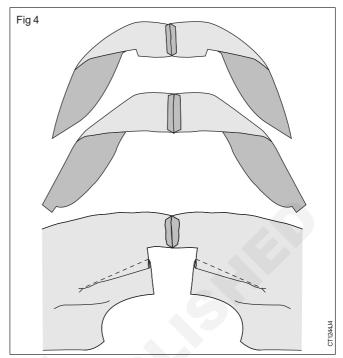
Add seam allowances for master pattern: 0.75 cm on outer round shape and 1 cm on collar back. Cut on double layer of the suitable interlining as per garment fabric. (Fig 2)



Cut 2nd pattern for shawl collar component consisting of upper collar, lapel and front facing (these 3 parts are called "upper collar"). Use master pattern created for interlining. Add 2 cm below peak, from there square out by 4 cm to the right add 1 cm from point 50 and 27 (see pattern) to the right. Join back neck parallel to 50-27, reshape upto the extension bottom. Cut "upper collar" from double layer of original cloth. (Fig 3) Stitch the shoulder dart on mark and trim out the excess material from dart width and press it towards neck.

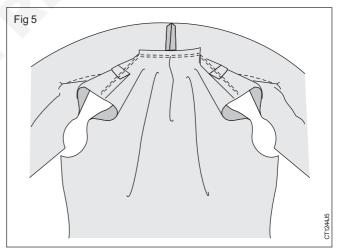


First join in centre back components of interlining (a), then of upper collar (b), then of lower collar in garment (c). (Fig4)



Take care to match the centre of collar and centre of back.

Now baste and stitch shoulder seam and back neck line in the garment. Clip the seam at neck point on both ends. Press shoulder seam to back side and neck seam towards under collar. (Fig 5)

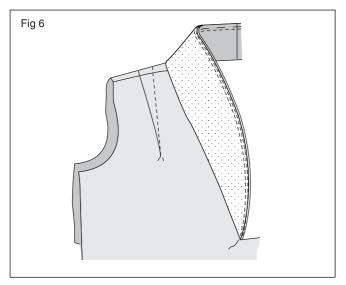


Set the interlining on the garment wrong sides together and matching the shape and the seams in centre back.

Baste and stitch all around the collar 0.5 cm from edge. (Fig 6)

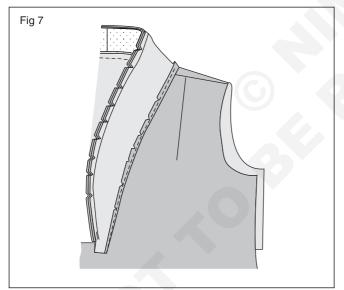
Note: Start stitching from centre back seam of collar first to the right, then from centre to the left; otherwise the shape of collar will be spoiled.

Turn raw edge of collar end by 1 cm, baste it.



Take upper collar piece. Clip by 0.5 cm inner shape of upper collar diagonally at a distance of 3 cm between the clips. Turn this clipped edge by 1 cm to wrong side and stitch it.

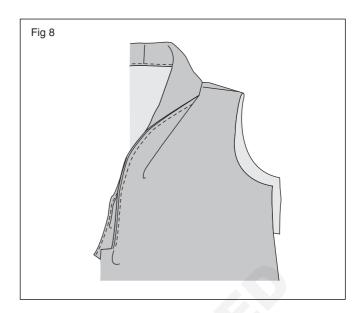
Place upper collar on the under collar right sides together and matching seams at centre back. Baste and stitch on outer shape through all the layers, starting from centre back seam to right and then to left side. Stop 1 cm before each end and lock the seam. Cut notches on round shape. (Fig 7)

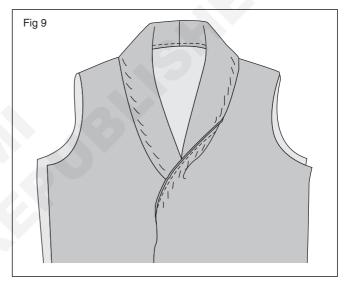


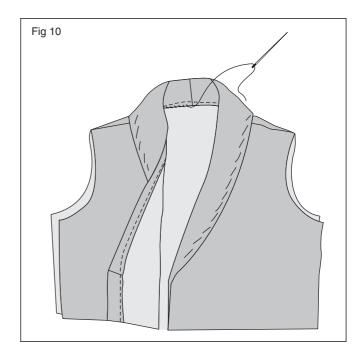
Press seam allowance to garment side. Turn the whole collar unit to right side, place under and upper collar flat. Set a seam on under collar from right side along the previous seam. Start and stop 2 cm away from the end of both sides of collar. (Fig 8)

Set collar facing flat on garment facing, baste and fix with slip stitches. Place upper collar on under collar. Set seam on outer edge of collar towards under collar and make diagonal basting to hold in place. (Fig 9)

Set inner edge of upper collar on back neck seam line matching centre. Baste and hem from sides towards centre. (Fig 10) Remove diagonal basting and press.







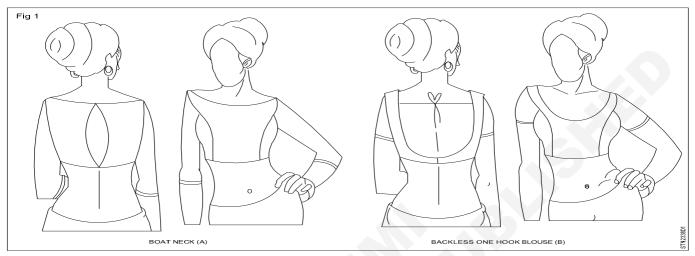
Sketch a ladies' sari blouse

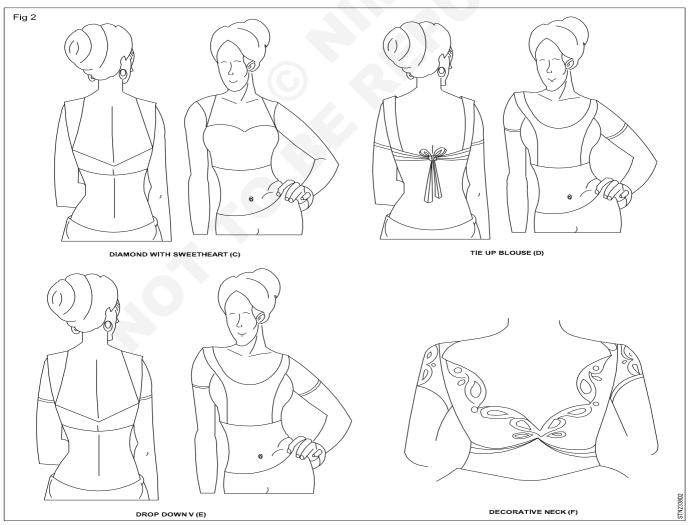
Objective: At the end of this exercise you shall be able to

· sketch different types of ladies' sari blouse.

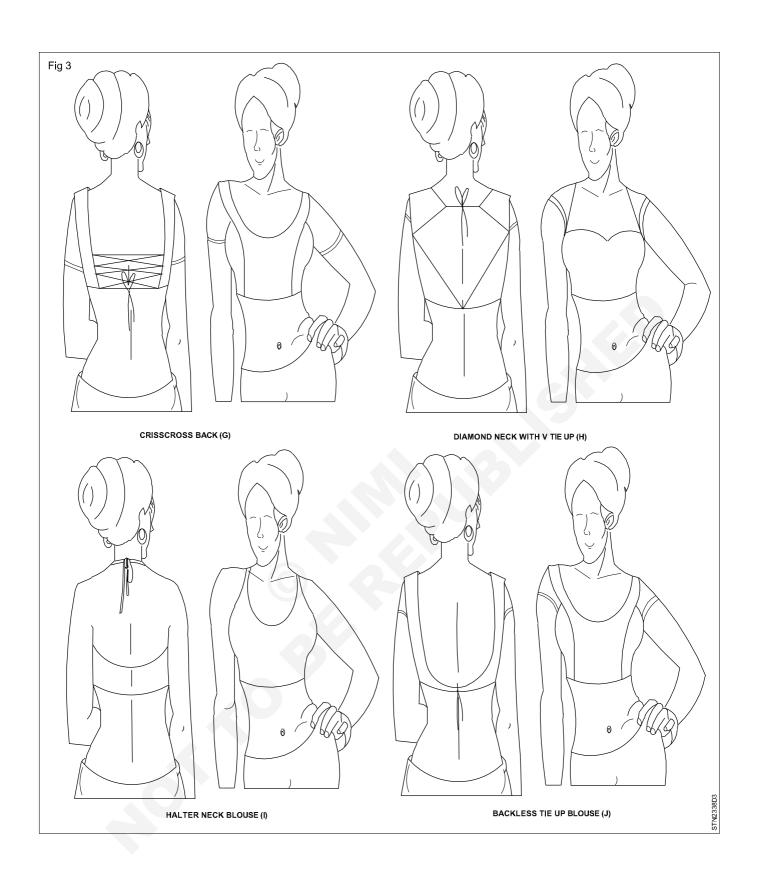
Sketch different types of sari blouse

- 1 Sketch the different types of tops given in the following (Fig 1,2&3) using 2H pencil in the cartridge paper.
- 2 Using fine pencil lines for easy corrections.
- 3 Make a necessary corrections after completing the sketches.
- 4 Draw the sketches with black with fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.





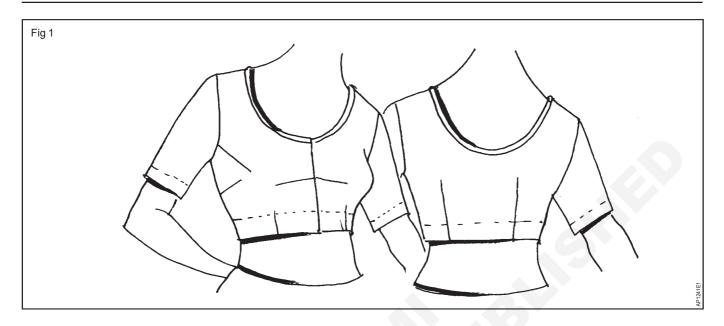
Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.40



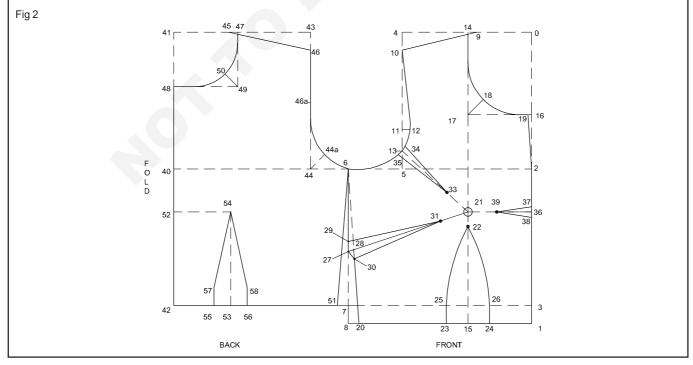
Plain blouse - Style I

Objectives: At the end of this exercise you shall be able to

- draft and cut the paper pattern of blouse
- prepare master pattern
- lay and cut the required components of blouse
- · sew the sari blouse.

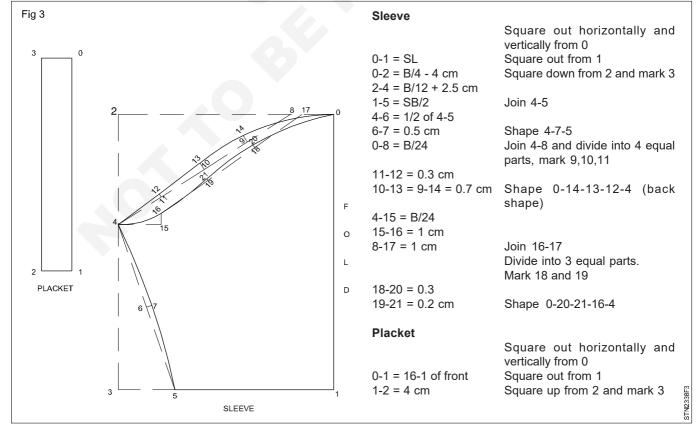


Measurements	Material
Frontlength = 38 cm	0.95 x 0.90 m Rubia/Cambric
Bust level = 25 cm	2 brown sheets
Shoulder = 38 cm	
Bust = 92 cm	
Waist = 72 cm	
Sleeve length = 25 cm	
Sleeve bottom = 28 cm	



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Front			Join 13-21
	Square out horizontally and	21-33 = 4 cm	
	vertically from 0	13-34 = 13-35 = 0.75 cm	Join 34-33, 35-33
0-1 = FL + 2.5 cm			Square out from 21
0-2 = B/4 - 4 cm			Mark 36
1-3 = 2.5 cm	Square out from 1,2,3	36-37 = 36-38 = 0.75 cr	n
0-4 = Sh/2 - 1 cm	Square down from 4 and mark 5	21-39 = 4 cm	Join 39-37, 39-38
2-6 = B/4 + 2.5 cm	Square down from 6 and mark 7 and 8	Back	
0-9 = B/12		6-40 = B/4 + 1.25 cm	Square up and down from 40
4-10 = B/36		40-41 = B/4 - 4 cm	
5-11 = 1/3 of 5-10	Square out from 11	41-42 = FL	Square out from 42
11-12 = 1 cm		41-43 = Sh/2	Square down from 43, mark
5-13 = B/36	Join 10-12 and shape 12-13-		44
	6	41-45 = B/12	
0-14 = B/12 + 1.25 cm	Square down from 14 and	43-46 = B/36	Join 45-46
	mark 15		Divide angle 46-44-6
0-16 = B/8	Square out from 16 and mark	44-44a = 1/2 of 6-44	
	17	44-46a = 1/2 of 44-46	
	Divide angle 14-17-16	+ 1 cm	Shape 46-46a-44a-6
17-18 = 3 cm	Shape 14-18-16	41-47 = B/12 + 2.25 cm	Square down from 47
16-19 = 0.5 cm	Join 19-2	41-48 = B/12	Square out from 48, mark 49
8-20 = 1.5 cm	Join 6-20		Divide angle 48-49-47
14-21 = BL		49-50 = 2.5 cm	Shape 47-50-48
21-22 = 2 cm		7-51 = 1.5 cm	Join 6-51
15-23 = 15-24 =	Square up from 23 and 24.	41-52 = BL	Square out
(w)	Mark 25 and 26	42-53 = B/12 + 1.25 cm	Square up, mark 54
1-20-	Shape slightly 22-25 and	53-55 = 53-56 =	
(4)	22-26	()///	
2	22-20	42 – 51 – 💛	
		4)	Square up from 56 and 55
6-27 = B/8	Join 6-27, mark 28 and 29	2	
27-29 = 28-30 = 1.25 cm		55-57 = 56-58 = 2.5 cm	Join 55-57-54
21-31 = 4 cm	Join 31-29, extend up to 32	20 0. 00 00 2.0 0111	Join 54-58-56
	Join 31-30, 30-27		Jan. 01 00 00



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.40

TASK 1: Draft and cut the paper pattern of blouse

Paper pattern drafting

- 1 Lay the brown sheet width wise folded on the drafting table. with its wrong side facing.
- 2 Draft the pattern of blouse front and back parts, following the instructions for drafting. Cut the balance brown sheet and fold it into equal halves.
- 3 Draft the pattern of sleeves matching the fold of brown sheet.

Pattern cutting

1 Cut the prepared paper pattern of blouse front, back, sleeve and placket along the following cutting lines, leaving enough space around them for preparing master pattern. 2 Cutting lines of blouse are

Bodice Front — 19-18-9-10-12-13-6-29-28-30 -20-23-15-24-1-3-36-2-19

Bodice Back — 48 - 50 - 47 - 46 - 46a - 44a - 6 - 51 - 56 - 53 - 55 - 42 - 52 - 40 - 48

Sleeve 0 - 14 - 13 - 12 - 4 - 7 - 5 - 1

TASK 2: Prepare master pattern

Master pattern

- 1 Lay the other brown sheet on the drafting table.
- 2 Mark the outline of the back part paper pattern and remove the pattern. Add the master pattern allowance to it and cut the pattern
- 3 Then, similarly draft and cut the front part master pattern.
- 4 Add the master pattern allowances to the sleeve and facing paper patterns already prepared for getting the master pattern.

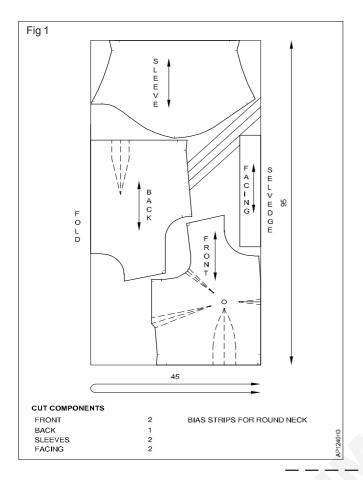
Instruction for Master Pattern	Sleeves	
Front and back Front opening, shoulders and on armhole 0.75 cm Sides 2.5 cm Bottom 3 cm	Top Side Bottom No seam allowance at neck Facing	0.75 cm 2.5 cm 3 cm
	Sides	0.75 cm
	Bottom	3 cm

- 5 Cut notches at required markings like darts, hem line etc.
- 6 Name all the cut pattern of the blouse with its descriptions for future reference.

TASK 3: Lay and cut the required components of blouse

Layout and cutting

- 1 Fold the blouse fabric widthwise and lay it on the cutting table, with its wrong side facing.
- 2 Spread and arrange the master pattern of front, back, sleeves and placket parts economically on the fabric.
- 3 Mark the outline of all the arranged components using a tailor's chalk.
- 4 Mark all the dart positions carefully and transfer it to the lower layer of the fabric using a tracing wheel.
- 5 Remove the master pattern. Cut the fabric into blouse components as marked with the sharp pointed scissors.
- 6 Cut notches at dart markings to set their positions.
- 7 Fold and tie all the cut fabric components together to prevent it from missing. (Fig 1)



TASK 4: Sew the sari blouse

Style Features	Materials and Trimmings
Binding at neck Front open placket	 Cut components of plain blouse 7 hooks Matching colour sewing thread Machine needle no - 16 Hand needle

1 The cut components of plain blouse are the following

Front	2
Back	1
Sleeves	2
Facing	2

Bias strips for round neck.

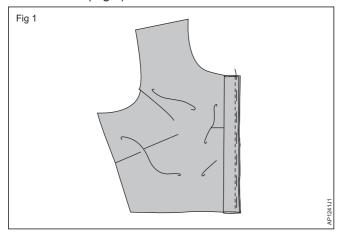
- 2 Stitch darts of front and back side on marks.
- 3 Press open front waist darts, press side dart, scye dart and centre darts downwards. Press the back darts towards centre line.
- 4 Prepare front placket. (SS.No.1)
- 5 Join front and back shoulder together with double stitched seam.
- 6 Trim raw edges of placket at neck and finish neck with bias binding.
- 7 Overlap the placket and baste.

- 8 Stitch front and back sides. Trim raw edges of seam allowance with pinking scissors. Place it flat towards back side and press.
- 9 Remove the basting of lapped placket.
- 10 Hem the bottom.
- 11 Stitch sides of sleeves, trim the seam allowance with pinking scissors and press.
- 12 Mark pitch point (centre of arm hole girth) which will appear on front.
- 13 Place the seam of sleeves along with the pitch point and match shoulder seam and centre of sleeve crown. Pin and baste sleeve with arm-hole with set-in-sleeve method and stitch. Set another row of stitches close to the seam allowance.
- 14 Mark positions and tack blouse hooks on inner side of right side placket.
- 15 Make thread eye for hooks on matching positions on outer side of other placket.
- 16 Finish and press.

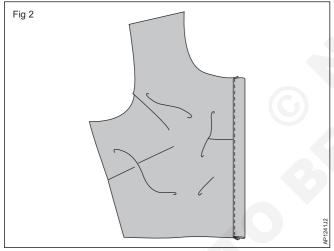
Blouse placket

Objective: This shall help you to • prepare the placket for blouse.

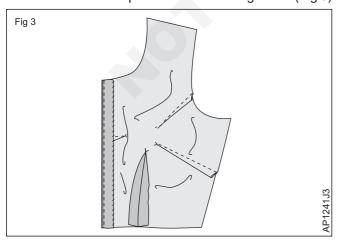
1 Take placket and front pieces. Take one piece of placket and fold it lengthwise wrong sides together. Place the raw edge of folded strip along the center edge of right front piece on right side, pin and baste, stitch on seam line (Fig 1).



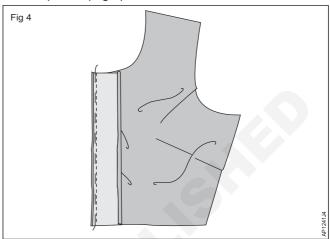
2 Turn the placket piece flat by 180° and make edge stitch on the placket piece along the previous seam. (Fig 2)



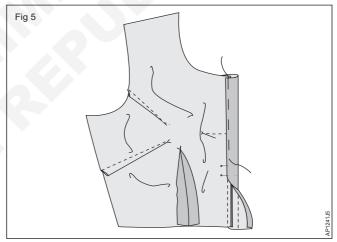
3 Turn the placket piece inside the front piece, press and baste. Finish the placket with hemming stitch. (Fig 3)



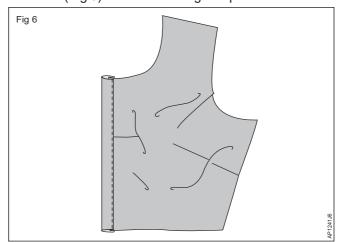
4 Place the other placket piece matching right sides of placket and left front along the center front line, pin and baste, stitch on the marked seam line. Turn the other raw edge of placket piece by 0.75 cm on its wrong side and press. (Fig 4)



5 Turn again the placket piece over the previous seam on wrong side covering it by 2 mm, pin and baste. (Fig 5)



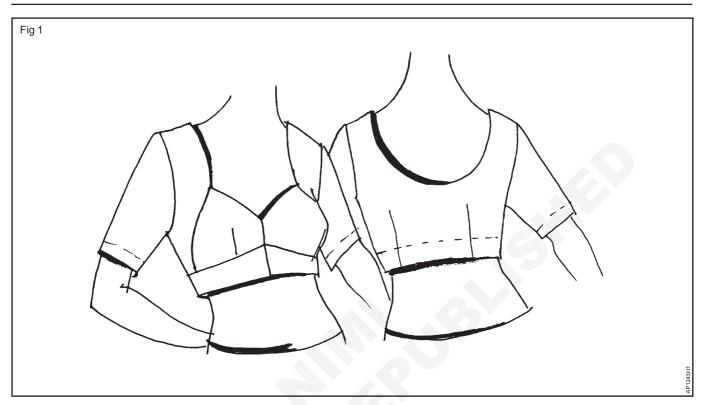
6 Stitch from right side in the crevice of previous seam.(Fig 6) Remove basting and press.

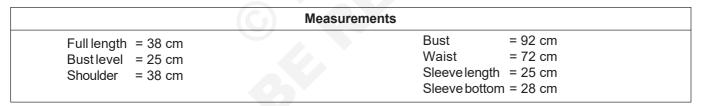


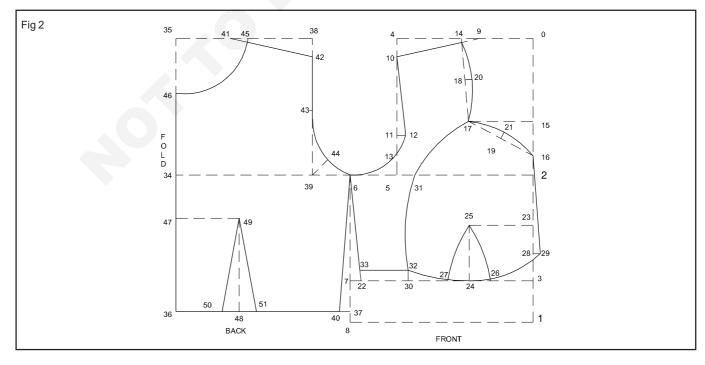
Construct a ladies' sari blouse - Style II

Objectives: At the end of this exercise you shall be able to

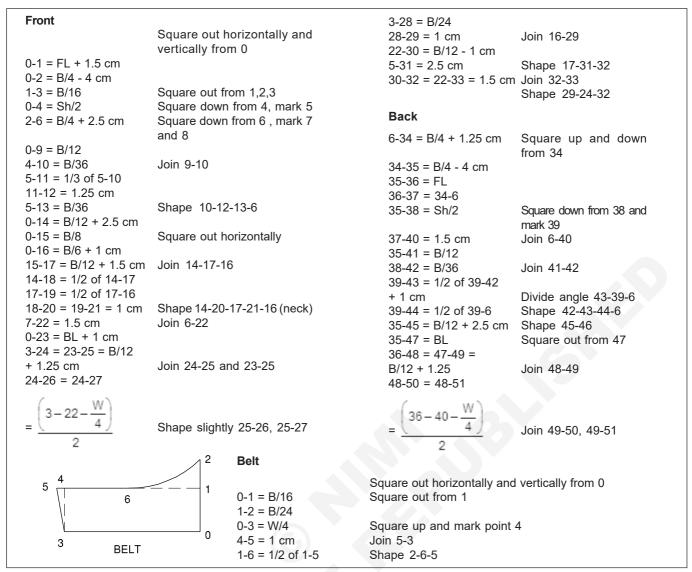
- · draft and cut the paper pattern of katori blouse
- draft the master pattern with the prepared paper pattern
- lay and cut the components of katori blouse.
- · sew the katori blouse.

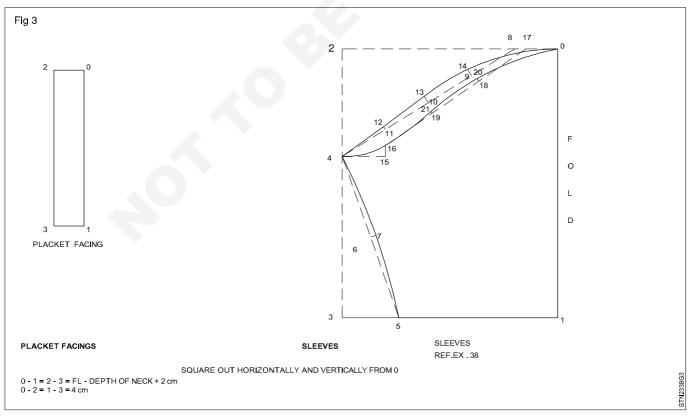






Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.40





TASK 1: Draft and cut the paper pattern of katori blouse

Paper pattern drafting

- 1 Lay the brown sheet widthwise folded on the drafting table with its wrong side facing.
- 2 Draft the pattern of katori blouse facing, side pieces, katori pieces, belt, and back parts following the instructions for drafting.
- 3 Cut the balance brown sheet and fold it into equal halves.
- 4 Draft the sleeve pattern of katori blouse.

Pattern cutting

Cut the drafted paper pattern of katori blouse components along the following cutting lines.

Leave sufficient space around sleeve facing and belt patterns, to cut master pattern with that.

Bodice Front

Katori Piece — 16 - 21 - 17 - 31 - 32 - 27 - 24 - 26 - 29 - 16

Side Piece 17 - 20 - 14 - 10 - 12 - 13 - 6 - 33 - 32 - 31 - 17

Bodice back 6 - 44 - 43 - 42 - 45 - 46 - 34 - 47 - 36 - 50 - 48 - 51 - 40 - 6

Belt 2-4-5-3-0-1-2

Sleeve 0 - 14 - 13 - 12 - 4 - 7 - 5 - 1

(Front Shape) — 0 - 20 - 21 - 16 - 4

Placket facings — 0 - 2 - 3 - 1 - 0

TASK 2: Draft the master pattern

Master Pattern

- 1 Lay the other brown sheet on the drafting table with its wrong side facing.
- 2 Mark the outline of back part paper pattern. Remove the pattern, now add the master pattern allowance and cut the master pattern.
- 3 Similarly cut the katori piece and side piece master patterns.
- 4 Add the master pattern allowances to all the other patterns in its paper pattern it self and cut the master pattern.
- 5 Name all the cut master pattern components of katori blouse with their description for future reference.

Instruction for Master Pattern	
--------------------------------	--

Front

Neck and armhole 0.75 cm Shoulder 1 cm Side 2.5 cm Bottom 1 cm

Choli

Neck, centre and on curved Shape 0.75 cm Bottom 1 cm

Belt

Top and centre front 0.75 cm Side 2.5 cm Bottom 3 cm Back

Neck and armhole 0.75 cm Shoulder 1 cm Side 2.5 cm Bottom 3 cm

Sleeves

Sleeve top 0.75 cm Side 2.5 cm Bottom 3 cm

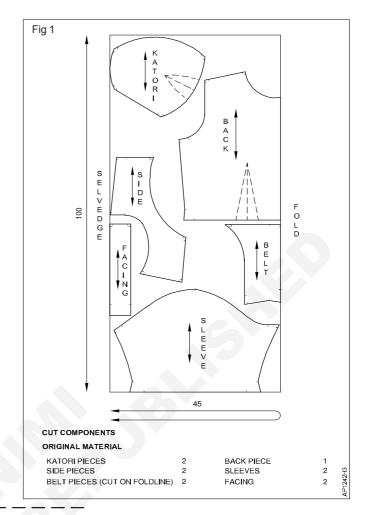
Facing

Bottom 3 cm All other sides 0.75 cm

For more stability the belt can be finished with a double layer of fabric. In that case the layout/ quantity of material has to change so that 4 belt pieces can be cut from the material.

TASK 3: Lay and cut the components of katori blouse

- 1 Fold the katori blouse fabric widthwise into two equal halves and lay it one the cutting table with its wrong side facing.
- 2 Spread and arrange the katori blouse master pattern on the fabric
- 3 Mark the outline of the spread master patterns with a contrast colour marking chalk and cut it into fabric components.
- 4 Transfer the required markings to the lower layer of the fabric with a tracing wheel.
- 5 Cut notches at point 31 to mark the position of katori piece and side piece joining.
- 6 Fold & tie all the cut Katori blouse fabric components together, which is ready for stitching. (Fig 1)



TASK 4: Sew the katori blouse

Style Features	Materials and Trimmings
Front part with beltKatori piecesFront open placker	 Cut components of katori blouse 7 hooks Matching colour sewing thread Machine needle No 16 Hand needle

The cut components of katori blouse are

Katori pieces 2 Back piece 1
Side pieces 2 Sleeves 2
Belt pieces (cut

at the foldline) 2 Facing 2

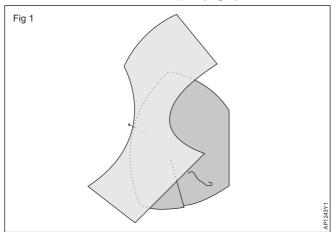
- 1 Prepare and press the darts on back and front.
- 2 Attach katori piece to the side piece at curved side
- 3 Fix belt on front side
- 4 Prepare front placket.
- 5 Cut facing for front neck from remaining material. Attach to front neck as described.

- 6 Attach bias strips to back neck.
- 7 Finish back neck with binding.
- 8 Overlap the placket and baste it. Join front and back shoulder.
- 9 Finish side seams.
- 10 Trim inlays with pinking scissors.
- 11 Remove basting from placket. Baste and hem at bottom.
- 12 Prepare sleeves and attach with set-in-sleeve method to blouse.
- 13 Fix hooks and eye on placket.
- 14 Finish and press.

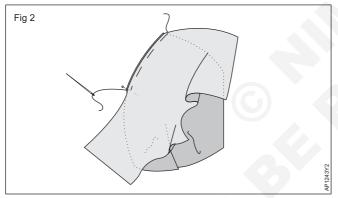
Attach katori piece

Objective: This shall help you to • join side and Katori piece.

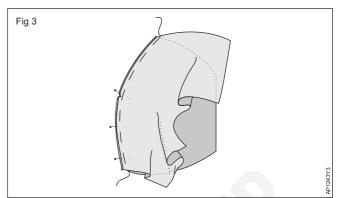
1 Take choli piece and side piece and place the side piece over the choli piece with right sides together. Match balance marks and pin. (Fig 1)

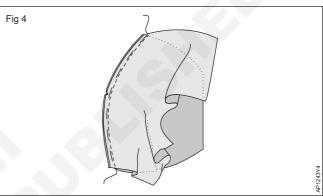


2 Match on the neck lines joining point of both pieces and pin. Baste on the seam line up to the balance mark. Remove two top pins leaving the pin on balance mark. (Fig 2)

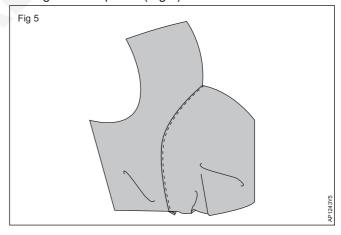


- 3 Match the bottom end of choli piece and side piece and pin. Put another pin in the middle between the two pins and baste up to the lower end. (Fig 3)
- 4 Remove the pins and stitch on the seam line. (Fig 4)





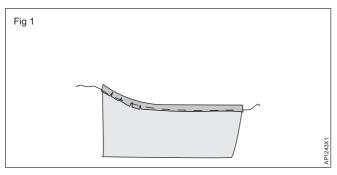
5 Place side piece flat and press gently; press seam allowance towards choli piece. Make top stitch on the edge of choli piece. (Fig 5)

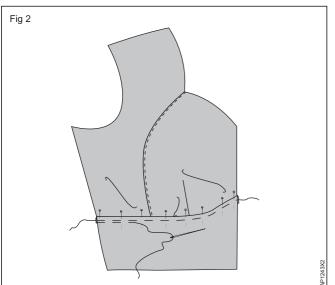


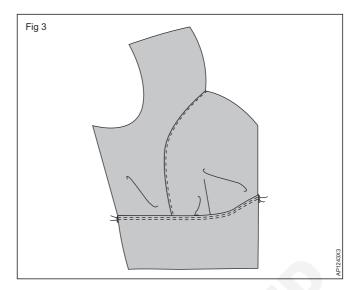
Attaching belt

Objective: This shall help you to
• fix belt in the choli-cut blouse.

- 1 Take front piece and belt piece.
- 2 Turn upper raw edge of belt by 0.75 cm towards wrong side and baste. (Fig 1)
- 3 Turn the belt piece to right side, set the belt on the bottom of the front piece leaving 1 cm seam allowance.
- match centre edge and inlays at the side of front and belt piece. Pin and baste. (Fig 2)
- 4 Remove the pin. Stitch on the top edge of belt.
- 5 Stitch parallel to the previous seam line at a distance of 3 mm. (Fig 3) then press it.







Apparel Exercise 1.8.41

Sewing Technology - Production Techniques

Check the fitting of the garment

Objective: At the end of this exercise you shall be able to

· check the fitting of the ladies' garment.

PROCEDURE

Check the fitting of the Ladies' Garments (Fig 1)

- 1 Put each Garment on the dummy and performs a General check.
- 2 Put on the Garment right side out over a correct size Dummy.
- 3 The garment should properly hold the look nice as per the reference sample.
- 4 Check the Full length, Shoulder, Bust, Bust level, Waist and Hip of the Garment is matching with the Dummy measurements.

Most of the time only one Dummy is available at the practical lab. This dummy shape usually refers to the basic size: M therefore the fitting test is only performed on the size sample.

- 5 Adjust the Garment so that the Bust and Waist lines coincides with the Bust and Waist lines of the Dummy.
- 6 Side seams, Sleeve sides seams coincides with the side of Dummy.
- 7 Study overall appearance of the garment.
- 8 Check whether the Sleeves, Necks are fitting correctly in proper places of the Dummy.
- 9 Check whether there are any changes needed in length and bottom circumference of the garment.
- 10 Check whether it has right amount of ease across Chest, Waist and Hip.

- 11 Check whether are seam lines follow the General silhouette of the Dummy.
- 12 Check whether Grainlines are falling correctly in the proper places of the Dummy.
- 13 Check whether pleats are falling correctly in the proper place of the Dummy.
- 14 Check whether Darts shapes are fixed correctly in the proper place of Dummy like Bust and Hip.
- 15 Check whether there are any wrinkles.
- 16 Check whether plackets and Fasteners are fixed correctly.
- 17 Note the changes in a paper if necessary.



Apparel Exercise 1.8.42

Sewing Technology - Production Techniques

Sketch a dress for a baby

Objectives: At the end of this exercise you shall be able to

- sketch different types of baby dress
- · design a suitable dress for baby.

Requirements			
Tools/Instruments	Materials		
Machine needle no.16Hand needle	 1 No. 1 No. Pencil or pen 1 No. 1 30 m x 0.90 m printed cotton as reqd. 1 brown sheets (size imperial 112 x 74 cm) 	as reqd.1 No.as reqd.	

PROCEDURE

TASK 1: Sketch different types of baby dress

- 1 Sketch the different types of baby dress in the following figures. (Fig 1)
- 2 Use fine lines for easy corrections.
- 3 Make necessary corrections after completing the sketches.
- 4 Draw the sketches with black fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

TASK 2: Design a suitable dress for baby

- 1 Design a garment according to the theme "Baby".
- 2 Decide the fabrics suitable for the designed garment.
- 3 Sketch the designed garment with its detailed style features.
- 4 Apply suitable colours to the garments with proper effects.



Apparel : Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.42

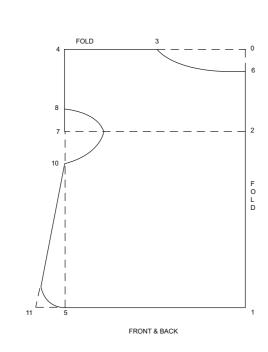
Construct a dress for a baby - Style I (Kids wear)

Objectives: At the end of this exercise you shall be able to

- cut the paper pattern of jabala with jhangia
- draft the master pattern
- · layout and cut the jabala and jhangia
- sew jabala and jhangia.



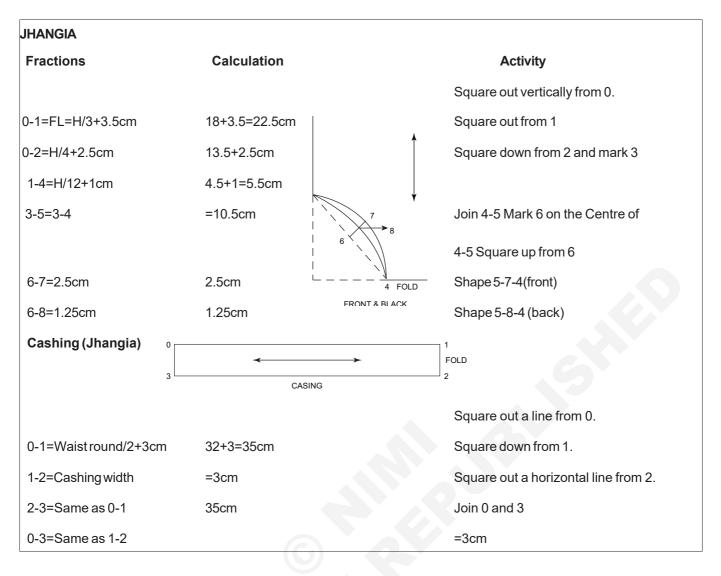
Measurements	Material
Jabala	0.95 x 0.90 m Rubia/Cambric
Full length = 33 mm	2 brown sheets
Chest = 40 cm	2 STOWN STIGOTO
Jhangia	
Hip = 54 cm	
Casing width = 3 cm	



Instructions for drafting

JABALA

Fractions	Calculation	Activity	
		Square out horizontally and Vertically from 0	
0-1=FL+2cm	33+2=35cm	Square down and mark 2	
0-2=Ch/4+1cm	10+1=11cm	Square out horizontally from 0	
0-3=Ch/4+3cm	10+3=13cm	Extend the line to mark 4	
3-4=Ch/4	=10cm	Square down from 4	
4-5=same as 0-1	=35cm	Mark 6 at vertical line from 0	
0-6=2cm	=2cm	Shape 3-6	
2-7=Ch/4+7cm	10+7=17cm	Mark the point 8	
7-8=2cm	=2cm	Mark the point 9	
7-9=4cm	=4cm	Shape 8-9-10	
5-11=4cm	=4cm	Extend 5 and mark 11. Join 10 and 11	



TASK 1: Draft and cut the paper pattern of jabala with jhangia

Paper pattern drafting

- 1 Before you can start to draft a pattern , you have to determine the size by special measurements.
- 2 Important for the construction of a Jabala with Jhangia are the following measurements.

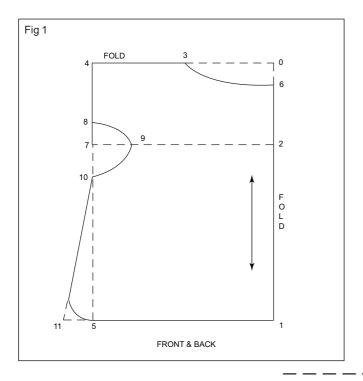
Full length (FL)
Chest (Ch)
Hip (H)

- 3 With these measurements, draft the pattern as per the instructions for drafting.
- 4 The pattern is always given by a small graphic. (Fig 1). The instruction for drafting (text) you will find beside or below the graphic. With the help of these instructions you can convert the small graphic into a paper pattern of the actual size desired.
- 5 The instructions contain three columns:
 - a **Fractions** which will give a measurement that can be transformed to any size of garment for example,

- Ch/4.If chest measurement is 40cm, the calculation will be 40cm/4=10cm. The numbers in "fraction" column of instruction are related to the numbers in the graphic.
- b The **calculations** is given only in this first exercise, later you have to calculate of your own.
 - (c) The **activity** describes how points are to be joined, how shaped lines have to be drawn, or how an angle has to be divided.
- 6 Lay the wrong side of the brown sheet flat and horizontal on the table and then draft the pattern. (Fig 1).
- 7 Use L-squad, curve stick and measuring tape to draw the drafting perfectly.

Do not draw the neck shapes without curve stick/french curves.

8 Fold the brown sheet both lengthwise and widthwise (for Jabala and Jhangia).



Pattern cutting

- 1 Leave sufficient distance between the components so that you can later add allowances for seams, hems, turnings etc. To decide for the right distance between the components you have to look at the instructions for master pattern.
- 2 Cut the drafted paper pattern using a paper shears along the following cutting lines.

Jabala:

Front and back \rightarrow 4-8-9-10-5-1 and 3-6

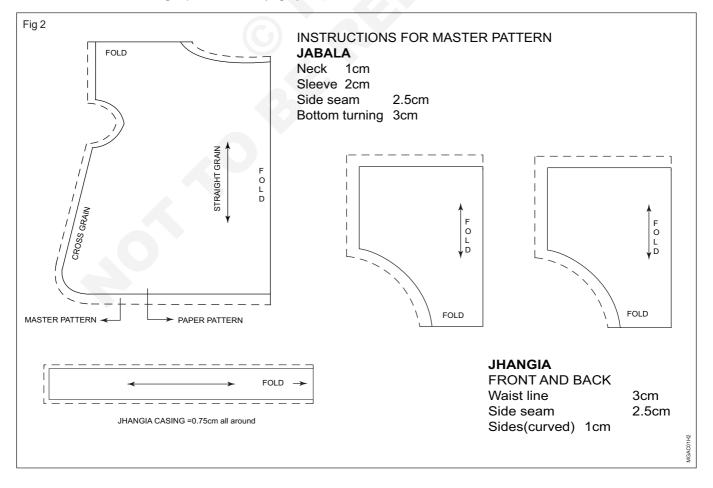
Jhangia:

Front \rightarrow 0-2-5-7-4
Back \rightarrow 0-2-5-8-4
Casing \rightarrow 2-3-0-1

3 The draft normally shows only a quarter or half of the full garment. This influences the layout on cloth. Instructions are given in each exercise. This draft shows quarter of the garment.

TASK 2: Draft the master pattern

- 1 The master pattern includes all allowances for seams, hems, turnings etc., The measurement for the allowances is given below. Add them to the draft of each pattern component which you have already drawn. (Fig 1).
- 2 Draw straight lines with scale and the curved ones with curve stick, maintaining equal distance. (Fig 2)
- 3 The dotted lines indicate the master pattern lines, after adding the required allowances to the pattern.
- 4 Draw the grain marks, (i.e) arrow parallel to the straight side of the garment, to indicate in which direction the pattern has to be layed on the fabric grain later. (Fig 1)



- 5 Notches are cut in the master pattern to indicate darts, seam allowances, turnings, openings etc. Mark notches first with pencil on the extensions of all outer lines of the basic pattern. For example, the seam allowance of the side seam is marked.
- 6 Cut the notches on the edge of the master pattern in V-shape (approx-5mm). Therefore fold the paper on the each mark and cut off a small diagonal triangle. Use notcher to notch the patterns.
- 7 Cut the notches for seam allowances, hem allowances. (Darts if required).
- 8. Then cut the notches to set balance marks, which are used during the stitching process for applied casings, fold on the center line and cut notches on all sections on the raw edges.

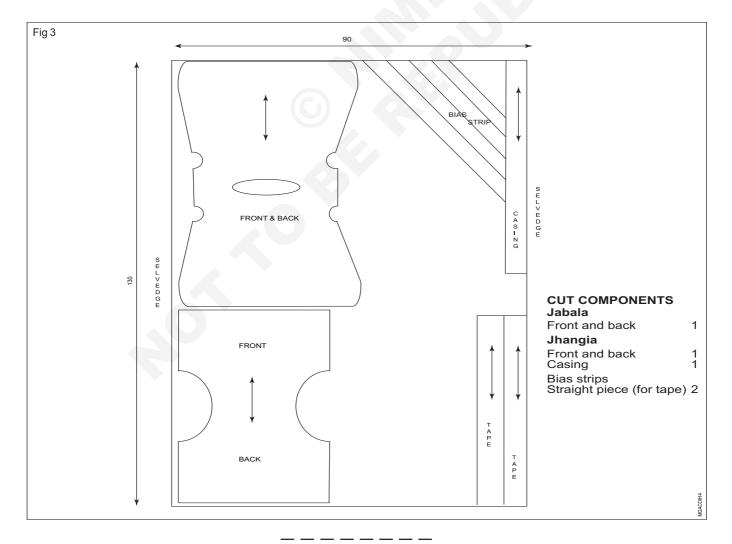
TASK 3: Lay and cut the jabala and jhangia

- 1 Take two length of cloth equal to the length of the master pattern (Both Jabala and Jhangia).
- 2 Place always length of the fabric (selvedge) along the long side of the table with the excess material on right side
- 3 Arrange all the cut master patterns on the layed fabric. (Fig 3)
- 4 Pin all the four corners of the fabric. Place the grain line mark of the master pattern components along the warp of the cloth(straight grain).
- 5 Pin the pattern to the cloth.

- 6 Mark all around the edges of master pattern on the cloth with the help of tailor's chalk and also transfer the marks of darts, turning and seam allowances on the cloth.
- 7 Remove the master pattern, now connect the notches and mark seamlines etc., with chalk on the cloth.

Draw the inner shape - neck, carefully since this is the actual shape of the garment.

- 8 Cut the marked components on the cutting line using sharp pointed scissors.
- 9 Pin all the cut fabric components together which are ready for stitching the jabala and jhangia.



TASK 4: Sew jabala and jhangia

Style features	Materials and trimmings
Boat shaped neck	JABALA
 Magyar sleeve 	Front and back 1
Without open	Facing material
	Straight pieces for tape
	JHANGIA
	Front and back 1
	Casing 1
	Bias strips
	Elastic (2/3 of Hip+ seam of 1cm_width)

- 1 Prepare the machine before stitching the garment.
- 2 Thread the bobbin with matching thread.
- 3 Thread the upper part of the machine and join the upper and lower thread.
- 4 Stitch some rough stitches on a piece of waste cloth to check the tension of the stitches. Adjust it if necessary.
- 5 Finish the neckline with facing.
- 6 Hem 1cm wide the sleeve bottom by slip hemming or machine stitching.
- 7 Place the front and back parts, with right sides facing each other, stitch side seams with plain seam.
- 8 Turn the bottom hem edge and press.

- 9 Mark and make the hem allowance even through out and press.
- 10 Secure hem with machine stitching.
- 11 Prepare tape by cutting some straight pieces from the same fabric.
- 12 Join them together with a running stitch to measure the neck round plus 5cm. Double fold the straight piece lengthwise, hem all its raw edges and stitch
- 13 Mark a point with tailor's chalk at the center front of the jabala at neckline.
- 14 Punch a hole with a stiletto at that mark.

TASK 4: Practice on drafting, cutting & stitching of a line frock

1 Take the following measurements for drafting an A-Line frock from the measurement chart.

Measurement

Length = 56 cmChest = 56 cmShoulder width = 23 cm

Drafting details

0 is starting point

Front Pannel (part)

$$0-1$$
 = Full length + 1.5cm

0-2 =
$$\frac{\text{Chest}}{4}$$
 + 4 cm

0-3 =
$$\frac{\text{Chest}}{4} + 1.5 \text{ cm}$$



0-4 = Same as 0-3 + 1.5cm Join 4 & 3 Neck round

0-5 = Square down from 5 to 6

5-7 = 1.5cm Join 3-7

$$1-8 = \frac{\frac{\text{Chest}}{4} - 1 \text{ cm}}{\frac{\text{Shoulder}}{2} + 1 \text{ cm}}$$

6-9 = 2.5 cm Shape skye 7-9-8

2-10 = Same as 1-8 + 4cm

Join 8-10

10-11 = 1.5 cm Shape bottom 2-11 as shown in Fig 2

Back Part

0-12 = 2cm Shape back neck 3-12 and Back skye 7,8 with help of round curve.

Length (placket) opening at centre

Back 1/6 th chest from 12 or full opening from 12-2

Instructions for master pattern

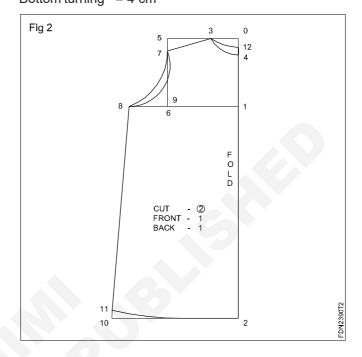
Bodice

Shoulder = 1cm

Neck, armhole = 0.75cm

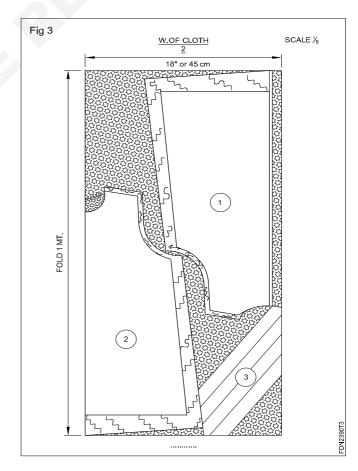
Side seam = 2.5cm

Bottom turning = 4 cm



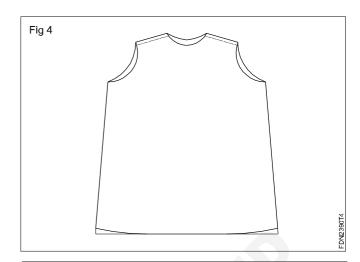
TASK 5: Layout and cutting

- 1 Lay the fabric on the cutting table with its right side facing.
- 2 Fold the fabric widthwise so that the wrong side of fabric face upwards.
- 3 Spread and arrange master pattern of A-Line frock economically on the fabric. (Fig 3)
- 4 Mark the outline with marking chalk.



TASK 9: Stitch sequence

- 1 Join both shoulder of front & back part on the wrong side with right sides facing together.
- 2 Finish the back (Placket) opening with slit placket (opening)
- 3 Finish the neck round & arm hole with bias facing.
- 4 Stitch both the side seams with plain seam.
- 5 Make two rows of stitches at side seams for strengthening.
- 6 Fold the bottom hem line and stitch with plain seam.
- 7 Fix velcro at the back of placket opening at equal intervals.
- 8 Trim the extra threads.
- 9 Press and fold the A-Line frock.



Get the work checked by your instructor.

Sketch a dress for a toddler

Objectives: At the end of this exercise you shall be able to

- sketch different types of toddler dress
- · design a suitable dress for toddler.

Baby chemise

Baby chemise is also known as frock petticoat kids inner wear with sleeveless body part and gathered of pleated skirt part, it is usually stitched from thin cotton fabrics of white or light colours. The neckline is cut and stitched deeper and wider as it is worn as and innerwear. The scye depth is kept more than the usual proportion. As no sleeves are attached. The opening is generally kept at the centre back. The neck, scye and bottom are finished with hem, Lace, piping of rill attachment.

Baby set

Baby set is a type of frock usually worn by babies. Not by girls. It consists of body part, skirt part and sleeves. The garment is featured with yoked bodice. Gathered or smocked skirt and puff sleeves. The neck is generally cut in round or square shape and finished with facing or binding.

The opening of the garment is at the centre back, which is fastened with zipper or hooks. Its yoke part is usually prepared with plain fabric and the skirts and sleeves with matching colour printed fabrics. Chintz fabric is most suitable for stitching a baby set.

Sketch different types of toddler dress

- Sketch the different types of baby dress in the following figures. (Fig 1) using 2H pencil in the cartridge paper.
- 2 Use fine pencil lines for easy corrections.
- 3 Make necessary corrections after completing the sketches.
- 4 Draw the sketches with black fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.



Design a suitable dress for toddler

- 1 Design a dress according to the theme "Toddler".
- 2 Decide the fabrics suitable for the designed garment.
- 3 Sketch the designed garment with its detailed style
- 4 Apply suitable colours to the garments with proper effects.

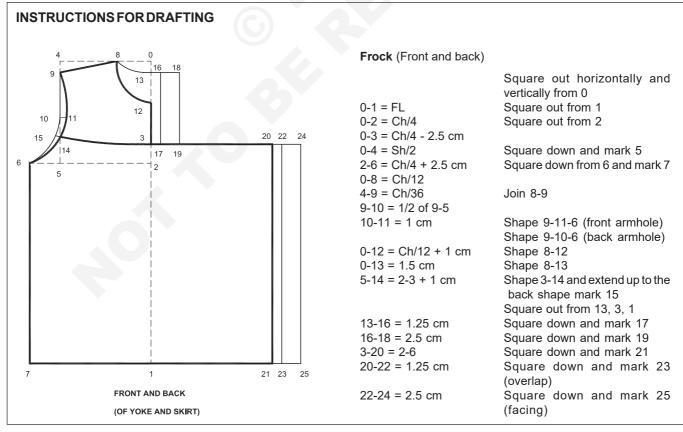
Construct a dress for a toddler - Style I

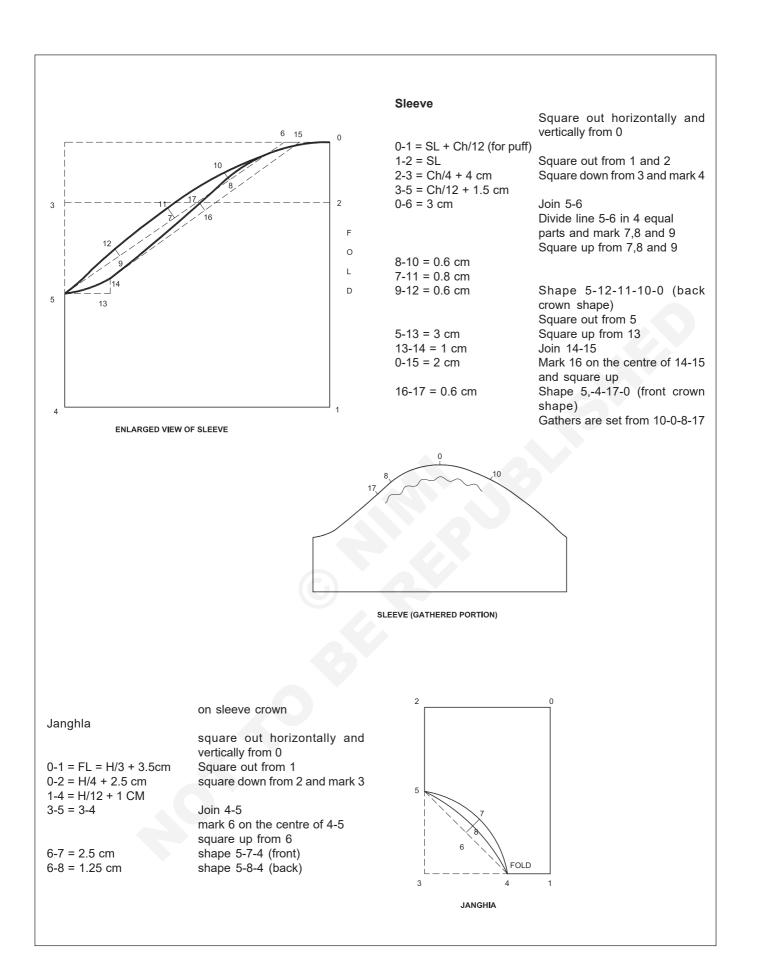
Objectives: At the end of this exercise you shall be able to

- · stitch a baby set with puff sleeves and smocking on yoke and sleeve
- · finish neck with bias binding.

Measurements (Medium)	Material
Frock Full length = 40 cm Shoulder = 24 cm Chest = 54 cm Sleeve length = 13 cm	1.25 x 0.90 m Rubia/Cambric Elastic (2/3 of Hip + 2.5 cm + seam of 1 cm width) 4 press buttons
Janghia Hip = 54 cm	

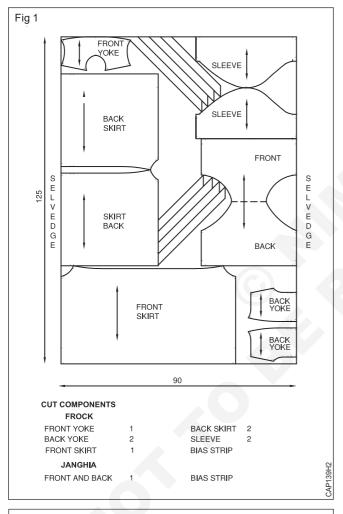






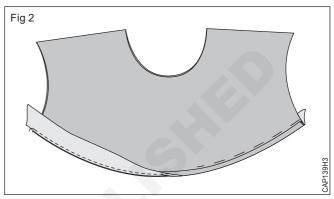
INSTRUCTIONS FOR MASTER PATTERN		Janghia	
Yoke frock shoulder, armhole of the yoke front and back top of waist skirt (front and back)	0.75 cm 1 cm	bottom sides for elastic insertion	0.75 cm 1.5 cm 2 cm
side seam of skirt (front and back) bottom hem Sleeve	1.5 cm 5 cm	Balance marks: facing (16-17, 22-23), centre of yoke and skirt, centre of sleeve crown	
sleeve crown side bottom	0.75 cm 1.5 cm 1 cm		

Draw a draft of baby set (yoke frock and janghia) according to the given measurement and instructions for drafting. (Fig 1)

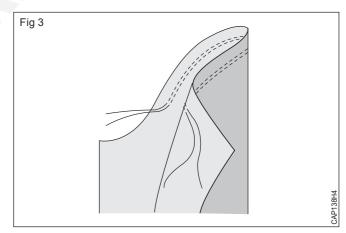


Draw frock pieces front and back of yoke and skirt separately on single layer of brown paper.

- 2 Draw sleeves on double layer of brown paper. Draw jangia also on double layer. Keep fold at the bottom.
- 3 Separate front and back on yoke line. Prepare master pattern.
- 4 Cut components, sleeve and janghia
- 5 Layout on cloth: mirror front yoke and front skirt and jangia to get the proper shape of component. Other components use twice. Mark and cut. (Fig 2)



- 6 Prepare smocking in front of frock at top and at sleeve bottom.
- 7 Stitch the yoke frock. Attach bias binding on the lower edge of front and back yoke. Place bias strip over yoke, matching edges and baste. Stitch close to basting. Turn bias strip towards wrong side of yoke Leaving 0.5 cm of bias binding strip visible from right side. Baste. (Fig 3)



Don't fold seam allowance but keep it inside the binding. Maintain also the width of bias fold.

- 8 Gather upper part of skirt back with machine.
- 9 Stitch yoke with upper part of front and back skirt leaving 5 cm without gathering at the centre of back (for overlapping and facing purpose).
- 10 Turn the facing of both sides at the back centre.
- 11 Join front and back shoulder with plain seam.

- 12 Finish neck with bias binding.
- 13 Join front and back side of frock.
- 14 Turn the bottom of the frock on the mark line, baste and finish with slant hem.
- 15 Prepare puff sleeve: Make two rows of ease stitches at upper sleeve shape, 1st at a distance of 0.5 cm, 2nd at a distance of 0.75 cm. Start stitches 5-6 cm from raw edge and stop also 5-6 cm before the other edge. Leave long threads.
- 16 Stitch sleeve side seam (1 cm seam allowance). Pin the centre of sleeve crown on shoulder, with right sides together and leaving seam allowance.

Take care that front sleeve and front bodice match.

17 Gather on sleeve crown 3 cm (Ch/12 - 1cm) on both sides of shoulder seam while pulling the long thread ends from both sides.

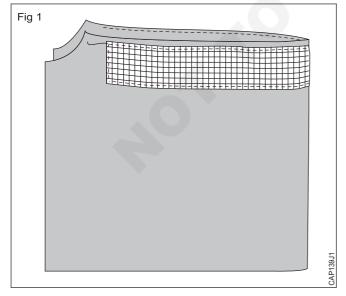
- 18 Pull until the girth of sleeve is equal with the girth of armhole.
- 19 Baste sleeve to bodice arm hole, then stitch with machine.
- 20 Attach 4 press buttons at the back opening on marks.
- 21 Finish and press.
- 22 Attach bias strip at bottom of jangia for facing.
- 23 Join front and back sides with plain seam, leaving 2 cm for casing at one side for elastic insertion.
- 24 Turn the elastic facing to wrong side at waist keeping 0.5 cm for first fold and 1.5 cm for 2nd fold, baste and finish with seam.
- 25 Insert elastic with the help of safety pin through casing and join for gathers with lapped seam by machine.
- 26 Finish and press.

Smocking

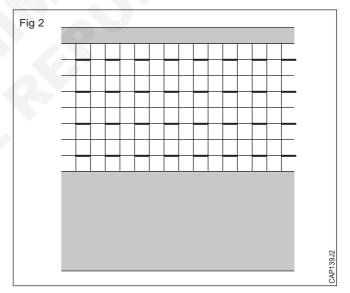
Objective: This shall help you to

• prepare smocking at yoke and at sleeve bottom.

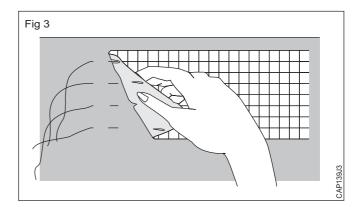
- 1 Fabric for smocking requires 2.5 to 3 times the width of cloth compared to the ready measurement of smocked part.
- 2 Cut a strip of graph paper for the skirt top of yoke frock front. Take 6 cm for ready smocking and 1 cm on each side, i.e. total 8 cm lengthwise.
- 3 Press the material of frock nicely so that no wrinkles are left out.
- 4 Fix the graph strip by basting all round on the upper part of skirt. The lines of graph paper have to be exactly on the grain. (Fig 1)



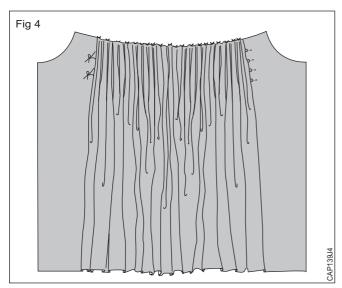
5 Secure thread end with a knot. Prepare running stitch lines at the distance of 2 blocks lengthwise, complete 6 cm lengthwise. (Fig 2)



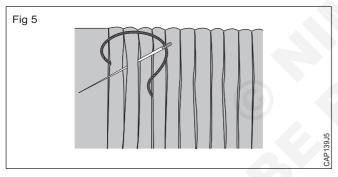
6 Remove the graph paper carefully by hand so that the thread does not come out. (Fig 3)



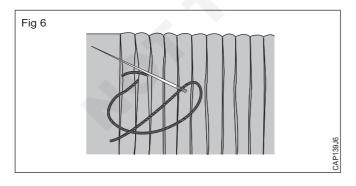
7 Pull the thread of two lines together. Anchor the threads at one end securely and distribute the fullness evenly. Pull other threads also pairwise. (Fig 4)



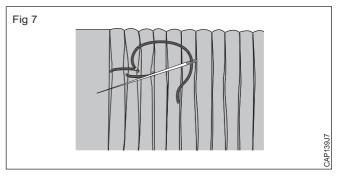
8 Start smocking stitch (cable stitch) with a double embroidery skeins thread in needle. Bring the needle from underside through 1st running stitch hole keeping the thread above the needle. Take a short stitch through fabric under the 2nd running stitch hole and draw fabric up. (Fig 5)



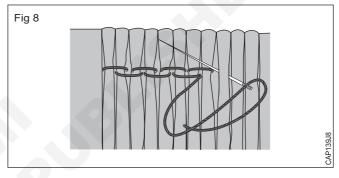
9 Keep second stitch thread below needle, take a short stitch under 3rd running stitch hole. Draw up fabric to keep folds evenly, always pull thread at right angle to switch. (Fig 6)



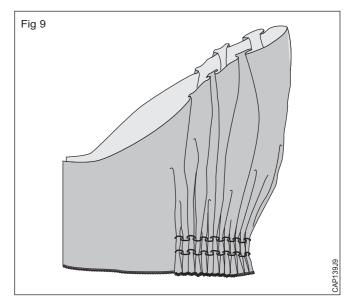
10 For next stitch keep thread above needle. Alternate in this way until the row is finished. Try to keep folds even when drawing up stitch. (Fig 7)



11 Repeat the identical procedure for each subsequent row, alternating thread above and below needle in matching pattern block. This will make rows exact duplicates, as this pattern requires. (Fig 8)



- 12 After completing the smocking remove running stitch.
- 13 To smock the sleeves finish the bottom edge with rolled hem.
- 14 Leave 1.5 cm after the rolled hem and adopt the above smocking procedure, make the design 10 cm in the centre of sleeve widthwise, make two rows of cable stitch, remove the running stitch thread. (Fig 9)



Construct a dress for a toddler - Style II

Objectives: At the end of this exercise you shall be able to

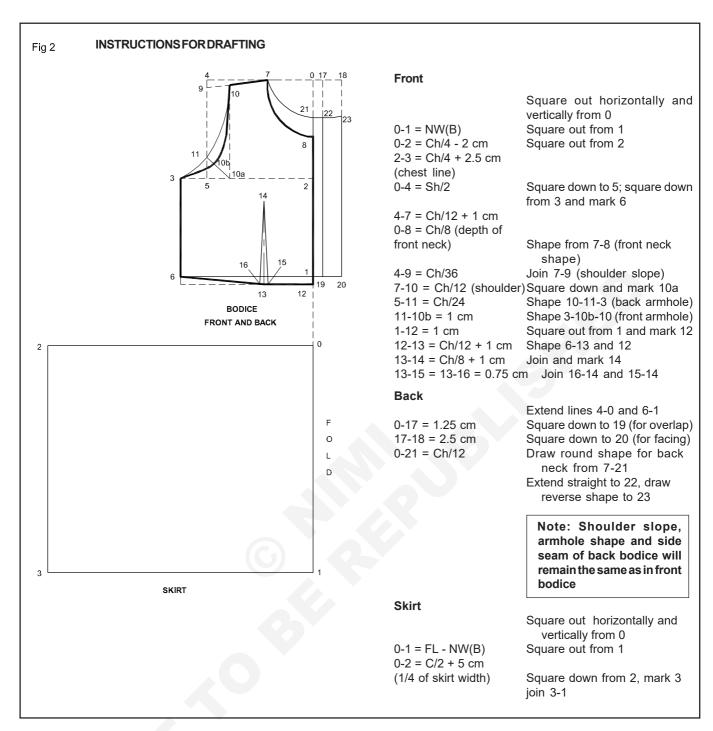
- convert the given draft into separate front and back pattern
- prepare gathers at skirt
- · finish armhole and neck by facing
- join bodice piece with skirt piece.



Measurements (App. 5 years)	Material	
Full length = 56 cm Natural waist (back) = 26 cm Shoulder = 28 cm Chest = 60 cm Waist = 56 cm	1.05 x 0.90 m Poplin/Longcloth 3 buttons (Press buttons or hooks)	

INSTRUCTIONS FOR MASTER PATTERN

Neck, shoulder, armhole0.75 cmSide seam (bodice and skirt)2.5 cmWaistline (bodice and skirt)1 cmBottom turning5 cm

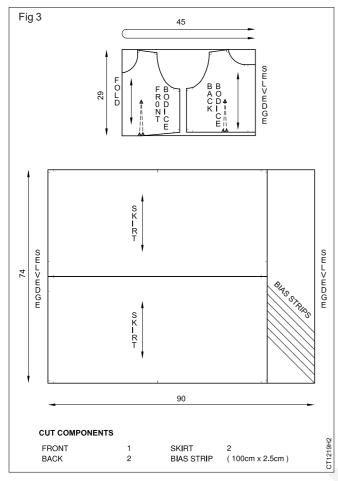


1 Draw components as per draft and instructions for drafting. Draw from wrong side of brown paper. Draw front and back bodice separately on single layer of brown paper. Add allowances on all components and cut the master pattern.

Turn the facing of back bodice part (2.5 cm from fold) then cut the back neck on lines. Transfer dart from front to back bodice.

- 2 Cut notches on darts, seam allowances and hems. Give balance marks in centre of bodice and skirt (front and back) and on facing (22-19).
- 3 Estimate the material required for 0.90 m and 1.50 m of width.
- 4 Cut 29 cm of fabric for bodice.

- 5 Lay out the pattern on double layer of fabric for bodice components (fold is lengthwise) and on single layer for skirt and bias strips. (Fig 3)
- 6 Cut skirt on bottom line to get to 2 pieces.
- 7 Mark the outline of pattern on fabric with the help of tailor's chalk.
- 8 Mark all notches with chalk for seam and hem allowances and darts.
- 9 Cut the components along the outer shaped lines.
- 10 Stitch darts on front and back bodice.
- 11 Stitch front and back on shoulder line with double seam, right sides together.



- 12 Join sides of front and back bodice and press the seams open.
- 13 Turn extended facing inside and press for back opening.

- 14 Join bias strips and finish armhole and neck with bias facing.
- 15 Fold 1 cm bias strip inside for neck-end finishing; then start stitching. At the other end also fold 1 cm inside and finish.
- 16 To match the center back lines of both the back pieces place right back piece over left one on center back line and make a horizontal row of stitches (2.5 cm) on overlaps at waist line.
- 17 Join the skirt pieces with side seams.
- 18 First baste and then hem the bottom of skirt keeping 4 cm ready hem.
- 19 For proper balance of bodice and skirt piece divide front and back bodice waist line in four equal parts by marking notches in seam allowance at waist.
- 20 Prepare gathers at the waistline of skirt part and join with bodice.
- 21 Set 3 buttons in left side placket and horizontal button holes on right side placket; 1st buttonhole 0.5 cm from neckline and 0.5 cm from facing edge.

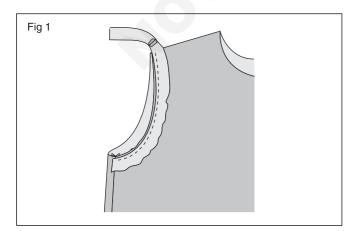
The "Button placket" is always the lower placket, button holes are prepared on upper. Wherever stretch comes on a buttonhole place it in horizontal direction. Others may be placed in vertical.

22 Trim loose threads and press the garment. Press gathered part of skirt. Start from hem pressing towards waist line. Keep the pointed part of iron towards waist in between the gathers.

Bias facing on arm hole

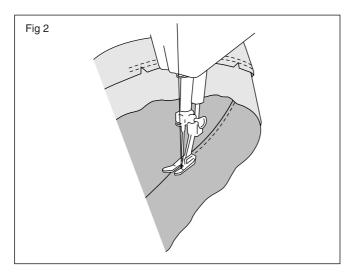
Objective: This shall help you to

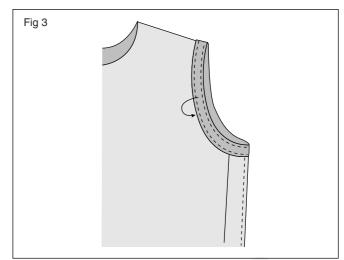
- finish armhole and neck line by bias facing.
- With the right sides together place bias strips at the starting point of arm hole (under arm) and stitch through the armhole with slight stretching of bias strip. (Fig 1)



Keep equal stretch on strip while stitching to maintain the shape of armhole.

- 2 Clip fullness from seam allowance.
- 3 Press seam allowance towards facing. Extend facing and seam allowance from right side away from fabric and stitch from right side close to the seam line. (Fig 2)
- 4 Turn and press facing inside. Facing may not be visible from right side.
- 5 Fold, baste and stitch the facing to the wrong side keeping facing width of 1 cm. (Fig 3)

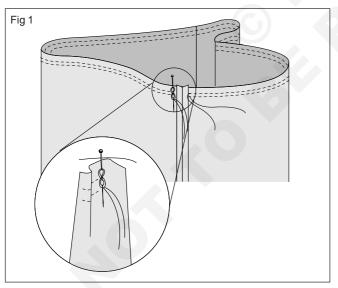




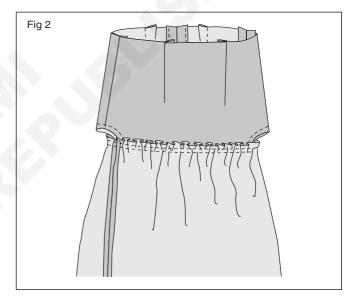
Gathering/ joining skirt and bodice

Objectives: This shall help you to

- prepare gathers in skirt and join the bodice with the skirt piece
- · explain special attachment used for gathering foot.
- 1 Work on right side of fabric.
- 2 Set the stitch regulator on basting stitch for ease stitching.
- 3 Stitch two parallel rows in seam allowance (one row at seam line and other 0.5 cm higher) on the waistline of skirt, leaving long thread at end.
- 4 Work on wrong side now. Lock the lower threads at starting point of seam with the help of pin. (Fig 1)



- 5 Pull the lower threads from other end up to the required width of bodice waist and tie on pin. Distribute the fabric equally on whole waist girth.
- 6 Turn the skirt to the wrong side and bodice to the right side.
- 7 Slip the bodice into the skirt, waist lines matching, with right side of bodice and skirt together. (Fig 2)
- 8 Match and pin the side seams.

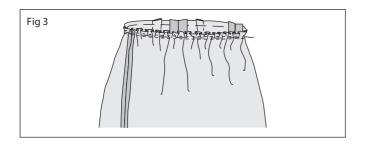


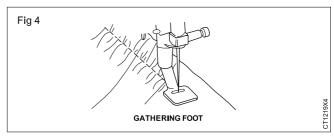
- 9 Match chalk marks of skirt and notches of bodice part and pin.
- 10 Baste the skirt with bodice at waist line. (Fig 3)
- 11 Keeping skirt side up, stitch waist line. Start from centre back, stitch around. Make a double row of stitches on waistline.

Work slowly, feed fabric through the machine carefully to avoid any gathers to be caught by seam.

- 12 Remove basting threads.
- 13 Turn the skirt to right side, so that now the right side of the full garment is out.

Gathering foot: It is a special attachment used for making gather automatically. Replace the pressure foot with gathering foot, if the stitches are longer the fabric will be gathered more closely. With the help of gathering foot you can get uniform gather in less time. (Fig 4)





Sketch a kidswear

Objectives: At the end of this exercise you shall be able to

- · sketch different types of kidswear
- · design a suitable dress for kids.

Sketch different types of kidswear

- 1 Sketch the different types of kidswear in the following (Fig 1) using 2H pencil in the cartridge paper.
- 2 Use fine pencil lines for easy corrections.
- 3 Make necessary corrections after completing the sketches.



Construct a kidswear - Style I

Objectives: At the end of this exercise you shall be able to

- stitch a frock with umbrella skirt
- · construct pattern for bodice with tucks
- manipulate the pattern for flat collar
- · layout the components of garment on different width
- make circular hem on skirt bottom
- prepare the short bell sleeves.



Measurements (6 years)	Material	
Full length = 56 cm Full length = 56 cm Natural waist = 26 cm Neck = 28 cm Shoulder = 28 cm Chest = 60 cm Waist = 56 cm Sleeve length = 15 cm	1.70 x 0.90 m (2.20 x 0.70 m) Terycot/Poplin 0.25 x 0.25 m Longcloth (for collar interlining) 3 buttons	

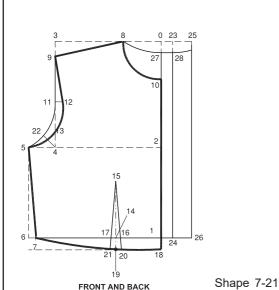


Fig 2

Front

0-1 = NW

Square out horizontally and

vertically from 0 Square out from 1 Square out from 2

0-2 = Ch/4 - 1 cmSquare down from 3 and mark 4 0-3 = Sh/22-5 = Ch/4 + 2.5 cmSquare down from 5 and mark 6

6-7 = 2 cmJoin 5-7

0-8 = Ch/12

Join 8-9

3-9 = Ch/360-10 = Ch/12 + 0.75 cm Shape 8-10 (front neck)

9-11 = 1/2 of 9-4Square in

11-12 = 1 cm 4-13 = 2 cm

Shape 9-12-13-5 (front

armhole)

1-14 = Ch/12 + 1 cmSquare up from 14 14-15 = Ch/8 Join 14-15 14-16 = 14-17 = 0.75 cm Join 15-16, 15-17 Square out from 18 1-18 = 1.0 cm

14-19 = 1.0 cmExtend the line of dart and mark

point 20 and 21

4-22 = 1/2 of 4-5	Divide angle 4-5-3 Shape 9-11-22-5 (back armhole)
+ 0.75 cm	
0-23 = 1.25 cm	Extend the line 3-0, 6-1 Square down from 23 and mark 24
23-25 = 2.5 cm	Square down from 25 and mark 26
0-27 = 23-28 = 1 cm	Shape 8-27-28 reverse the shape of 28-8 and mark 29

INSTRUCTIONS FOR DRAFTING

Tucks in front

0-29 = 18-30Join 29-30, mark 4 points at a = Ch/12+ 2 cm distance of 1.25 cm from line 29-30 respectively towards arm hole (position after stitching the tucks).

Draw parallel lines in vertical direction.

Copy the outline of front bodice.

Slash the copy of front part of bodice from 29-30. Paste the two parts on other sheet of brown paper, leaving 2 cm space in between (additional material for preparing 4 tucks i.e. 0.5 cm for each tuck).

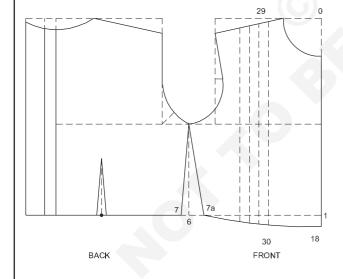
Take care to maintain the level of chest line.

Now cut the front pattern 10-8-9-12-13-5-7-19-18-10.

Don't mark dart.

Cut the back pattern 27-8-9-11-22-5-7-17-16-1-2-27.

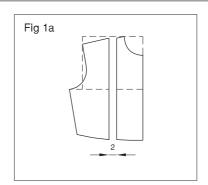
Mark waist dart

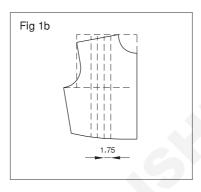


Cut along the outlines. (Fig 1a)

Mark tuck position at a distance of 1.75 cm between each. Set notches on top and bottom. (Fig 1b)

The unslashed pattern on the bodice piece with the tuck will serve as a correction pattern, i.e. after preparing the tucks on the bodice piece shape should be congruent with the manipulated pattern.





Skirt

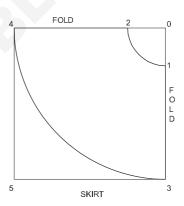
Square out horizontally and vertically from 0.

Draw a square 0-1-2-3

$$0-2 \frac{W}{8}$$

1-3 = 2-4 = FL - NW

Put one end of measuring tape/cord on point 0 and draw a quarter circle from 4-5 upto point 4 and sweep up to point 5. Repeat the same to draw a quarter circle from 1-3.



Collar

Note: Due to the shoulder slope the shape of collar has to be shifted back. The dotted lines in the draft show the position without shoulder slope. The solid lines show the modified position.

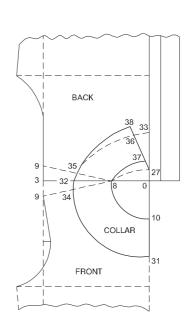
Draw the front and back of bodice joining on shoulder line.

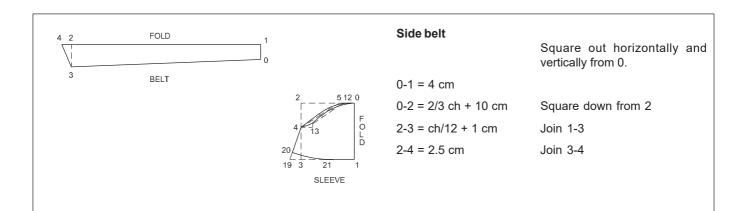
10-31 = 8-32 = 27-33 = Ch/12 + 1 cm Shape 31-32 with circle, shape 32-33 parallel to 8-27 Mark point 34&35 on cutting point of shoulder line

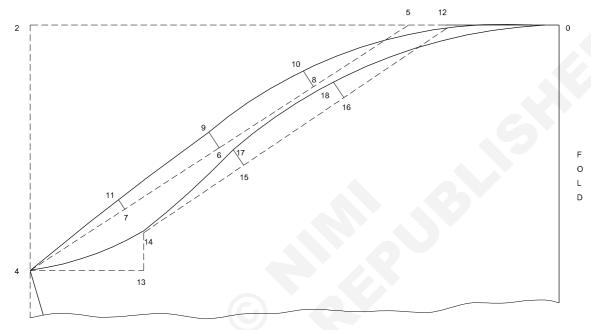
33-36 =34-35

Join 27-36

27-37 = 36-38 = 32-35 (measured in straight distance) Join 36-38. Shape 8-37 for back neck and 35-38 for collar shape







ENLARGED DETAIL OF SLEEVE CROWN

Sleeve			
	Square out horizontally and ver-	13-14 = 1 cm	Join 12 and 14
	tically from 0		Divide 12-14 in 3 equal
0-1 = SL			parts and mark 15 and 16
0-2 = Ch/4 - 1 cm	Square down from 2 and mark 3		Square up from 15 and 16
2-4 = Ch/12 + 1.5 cm			
0-5 = Ch/12 - 1 cm	Join 4-5	15-17 = 16-18 = 0.5 cm	Shape 4-14-17-18 and 0 (front
	Divide 4-5 into four equal parts		shape of sleeve)
	and mark 6,7 and 8	3-19 = 3 cm	Join 19-4
	Square up from 7	19-20 = 2 cm	
7-11 = 0.3 cm	Square up from 6	19-21 = 1/2 of 1-19	Shape 20-21-1
6-9 = 0.5 cm	Square up from 8		
8-10 = 0.5 cm	Shape 4-11-9-10-0 (back shape		
	of sleeve)	The shape of sleeve	crowns proportionately will
5-12 = 1 cm		be the same in all t	he garments stitched. The

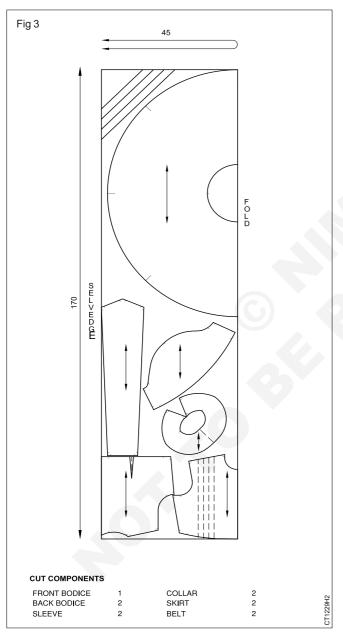
The shape of sleeve crowns proportionately will be the same in all the garments stitched. The exact measurement given shall help you to shape the crown initially, but also try to draw the shape free hand for practice.

4-13 = 3 cm

Square up from 13

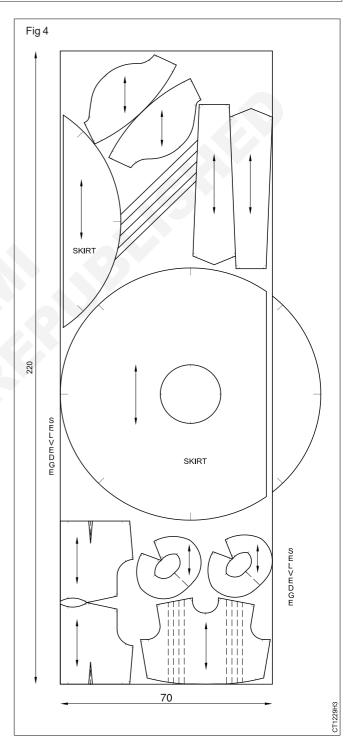
INSTRUCTIONS FOR MASTER PATTERN		Sleeves		
Front and back bodice piece		top	0.75 cm	
neck, shoulder, arm hole side seam	0.75 cm 2.5 cm	underarm side bottom	2.5 cm 1.5 cm	
waistline	1 cm	Collar	0.75 cm all around	
Skirt		Waist belt		
waistline for bottom turning	1 cm 3 cm	One collar is to be cut from Longcloth, used as interlining.		

- 1 Draft the pattern along with the draft and instructions for drafting.
- 2 Prepare the master pattern. (Fig 3)

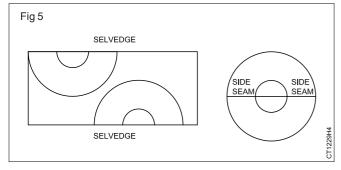


3 Select the layout according to the width of cloth. (Fig 4)

Take care that centre of sleeves and collar have to be placed on bias, i.e. 45° angle to warp/weft line. The centre of belt piece has to match with warp line.



- 4 If the size is too big for the width of cloth prepare skirt with 2 side seams. Place side seams along the grains. (Fig 5)
- 5 Transfer all marks. Cut on the lines.



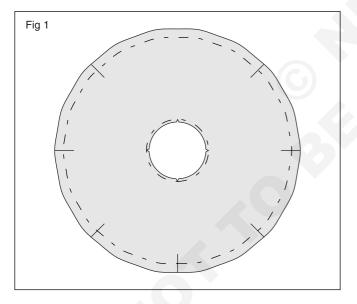
- 6 Stitch the tucks on both sides in front on marked lines. After stitching the tucks, check the shape once more with the front pattern of bodice, trim the edges if necessary.
- 7 Stitch the darts in back.

- 8 Prepare the body part.
- 9 Prepare and attach the collar on neck line.
- 10 Hem 1 cm wide the sleeve bottom by slip stitches.
- 11 Stitch under arm seam of the sleeve.
- 12 Attach sleeves with set-in-sleeve method.
- 13 Finish the skirt bottom with 3 cm wide circular hem.
- 14 Baste and stitch the skirt with body matching centre and sides.
- 15 Make three button holes and tack buttons at the back placket.
- 16 Trim off the thread ends and press.

Circular hem

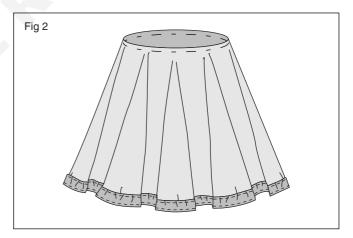
Objective: This shall help you to • prepare a circular hem.

- 1 To hem the flare of an umbrella-cut frock you have to maintain the width of the bottom.
- 2 Divide the flare into 8 equal parts by folding. Set marks on bottom + 6 cm long. Mark fold for hem, 3 cm from bottom edge. (Fig 1)



3 Fold the material by 0.5 cm (matching marks) and make ease stitch on folded edge.

- 4 Turn the raw edge 2.5 cm inside. Match the marks of turned edge with marks of lower layer. In this way some gathers will appear for the adjustment of girth. Pin in the middle of turning on all the marks. Slightly pull threads of ease stitching and distribute the material evenly to adjust the excess material. Baste and press on fold.
- 5 Baste the whole girth over turning (be careful that marks are matching). Remove pins and press. Hem with narrow hemming. Remove basting and ease stitches and press. (Fig 2)



Construct a kidswear - Style II

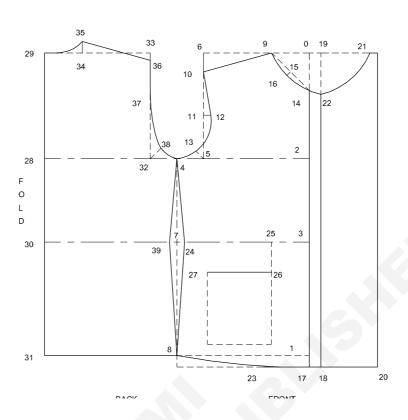
Objectives: At the end of this exercise you shall be able to • draft and stitch a combination suit

- finish waistline with elastic in back and waist band in front.

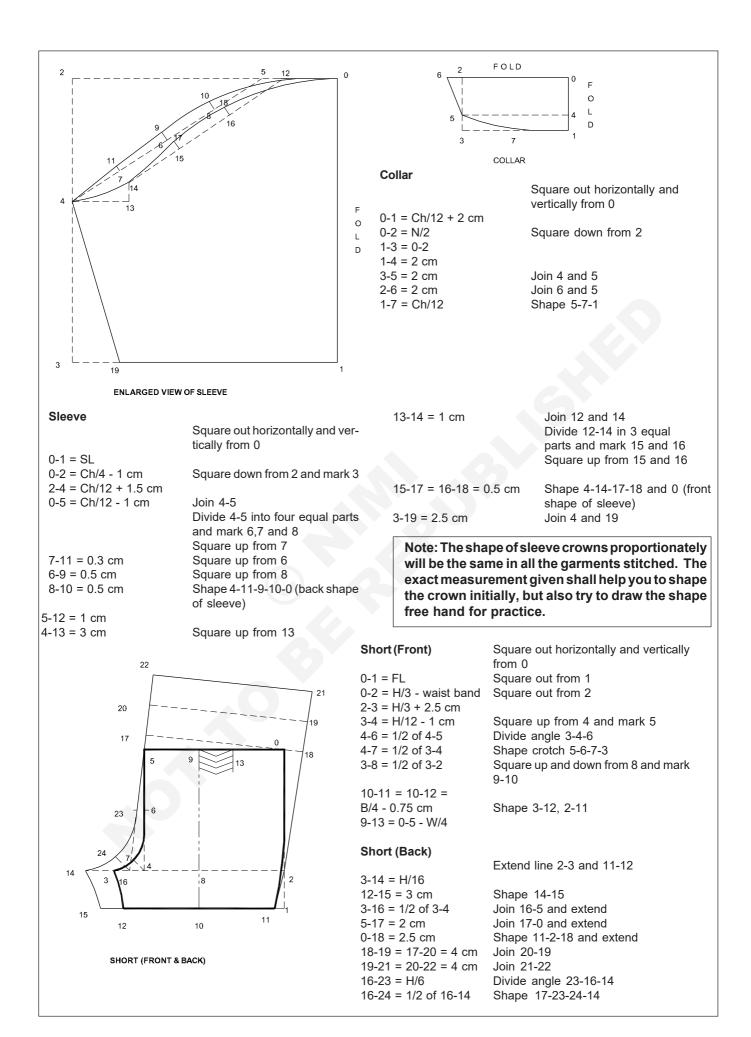


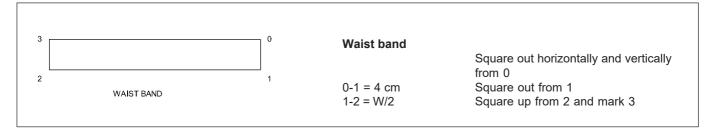
Measureme	nts (5 years)	Material
Top Full length Natural Waist Neck Shoulder Chest Waist Sleeve length Sleeve round bott	= 41 cm = 28 cm = 28 cm = 28 cm = 60 cm = 56 cm = 14 cm om = 26 cm	1.20 x 0.90 m Poplin/Terrycot (plain or small design) 0.30 x 0.90 m Poplin/Terrycot (of contrasting colour) 0.70 x 0.75 cm Elastic 5 buttons
Shorts		
Full length Waist Hip Round bottom	= 25 cm = 56 cm = 60 cm = 42 cm	





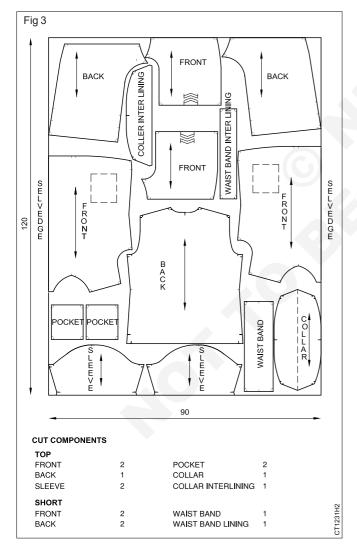
Top (Front) 0-1 = FL 0-2 = Ch/4 - 1 cm	Square out vertically and zontally from 0 Square out from 1	l hori-	18-20 = Ch/12 + 1.5	cm Square up from 20 and mark 21 Extend the shape 9-16-14 and mark 22 Reverse the neck shape from 22		
0-3 = NW	Square out from 2 and 3		18-23 = 18-20	Shape 8-23-17		
2-4 = Ch/4 + 2.5 cm			7-24 = 1 cm	Join 4-24 and 24-8		
2-5 = Sh/2	Square up from 5 and ma		3-25 = Ch/12	Square down from 25		
	Square down from 4 and	mark	25-26 = Ch/12 - 1 ci			
	7 and 8		26-27 = Ch/6 - 1 cm	Pocket mouth		
0-9 = Ch/12						
6-10 = Ch/24	Join 9-10		Top (Back)			
5-11 = 1/2 of 10-5	Square out from 11		4.00			
11-12 = 1 cm	Divide angle 10-5-4		4-28 = 2-4	Square up and down from 28		
5-13 = 1/2 of 4-5	Shape 10-12-13-4		28-32 = Sh/2	and mark 29, 30, 31		
0-14 = Ch/12	(front armhole)		29-34 = Ch/12	Square up from 32 and mark 33 Square up from 34		
9-15 = 1/2 of 9-14	Join 9-14		34-35 = 1.5 cm	Shape 29-35 (back neck)		
15-16 = 0.75 cm	Square out from 15 Shape 9-16-14		33-36 = 1 cm	Join 35-36		
1-17 = 2 cm	Square out from 17		36-37 = 1/2 of 33-32			
1 17 2 0111	Square out from 0		32-38 = 1/2 of 32-4	9		
17-18 = 1.25 cm	Square up from 18 and ma	ark 19	0.75 cm	Shape 36-37-38-4		
	equality up it emit to unit in		7-39 = 1 cm	Join 4-39 and 39-8		
3	0					
Pocket						
2	1		Square ou tically fror	ut horizontally and ver- n 0		
	POCKET	0-1 = Ch/6 1-2 = Ch/6 -	Square of	1		





INSTRUCTIONS FOR MAS	STERPATTERN	Collar and pocket	0.75 cm all around
Тор		Short	
shoulder, armhole, neck	0.75 cm	waistline, bottom line	0.75 cm
side	1 cm	Crotch	
bottom hem	3 cm	side seam	1 cm
Sleeve		Waist band	
sleeve top, sleeve bottom	n 0.75 cm		0.75
side	1 cm	waistline	0.75 cm
		sides	1 cm

1 Draft the combination suit according to the given measurements and instructions. (Fig 3)



2 Cut master pattern. Layout on wrong side of the cloth, mark and cut all components.

- 3 Cut bias strips from contrasting colour, 4 cm wide, join them to get as much length as required for the sleeve bottom and pocket mouths. Prepare bias strip of 6 cm of width for the bottom of short.
- 4 Prepare pockets with contrasting bias facing.

All facings will be turned to right side of the garment since they have decorative purpose.

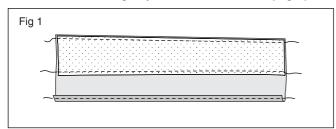
- 5 Fix pocket on marked position on front part of the top.
- 6 Join the shoulder seam of front and back.
- 7 Prepare and attach collar with neck.
- 8 Prepare sleeve bottom with bias facing of contrasting colour material. (Turn facing to right side.)
- 9 Attach sleeve with set-in-sleeve method to body part.
- 10 Stitch side seam and under arm seam of sleeve.
- 11 Turn bottom hem and finish.
- 12 Mark, cut and make botton holes.
- 13 Tack buttons.
- 14 Finish inside seams by overlock.
- 15 Finish and press the top.
- 16 Stitch front pieces on crotch line of the shorts with right sides together.
- 17 Fix pleats on the waistline of both front pieces.
- 18 Finish the waistline.
- 19 Finish bottom of short with contrasting bias facing (turn facing to right side).
- 20 Join inside leg seam.
- 21 Finish the inside seams with overlock.
- 22 Finish and press the shorts.

Waistline with elastic

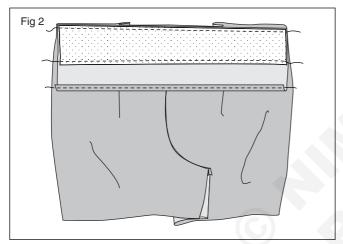
Objective: This shall help you to

· finish the waistline with waist band in front and fold down casing with elastic in back.

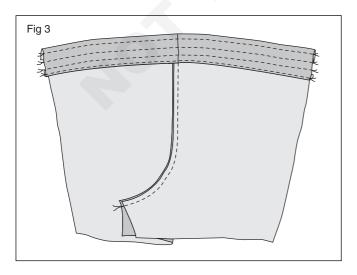
1 Place the interlining piece on the wrong side of waist band matching centre line and raw edge. Baste. Turn the other raw edge by 0.75 cm and baste. (Fig 1)



2 Place waist band on front of waist line with right sides together, baste and stitch with machine 0.75 cm away from raw edges. (Fig 2)



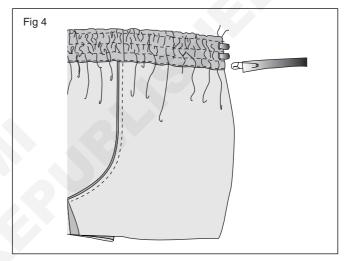
- 3 Stitch back pieces on seat seam line with right sides of fabric together.
- 4 Turn casing on waistline to wrong side of short. Fold lower raw edge by 0.5 cm inside and stitch through all layers.
- 5 Stitch on the top edge of casing, leaving 0.75 cm from edge. Stitch another two parallel seams each at a distance of 1 cm. (Fig 3)



6 Cut 3 strips of elastic each 22 cm long

$$\left(\frac{\frac{2}{3}H}{2} + 2 \text{ seam allowances}\right) = 22 \text{ cm for one strip}$$

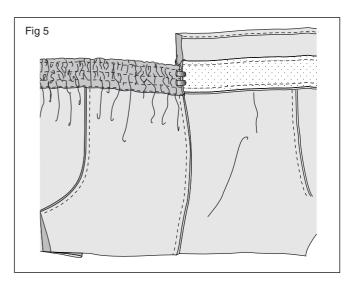
7 Fix safety pin on one end of strip and insert it in one of the three channels. Make single tacks on one side of strip and pin it at the other side for fixing. Repeat the process with the other two strips. Stitch with machine over all the strips on both sides. Remove pins. Distribute the material evenly on the channels. (Fig 4)



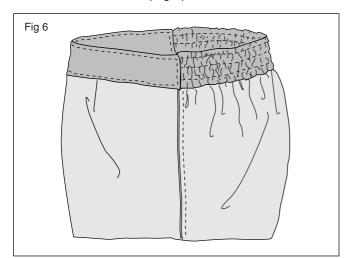
8 To finish the side seam, place front on back with right sides of fabric together and raw edges matching. Seam along the raw edges.

Note: Take care that balance marks are matching.

9 Press seam allowance towards front. (Fig 5)



- 10 Repeat the process for the other side seam.
- 11 Fold the waist band from centre. Cover the seam line of waist and baste. (Fig 6)



12 Finish the waist band with double row of stitches all around, 0.5 cm from each other. (Fig 7)



Apparel Exercise 1.8.43

Sewing Technology - Production Techniques

Check the fitting of the garment

Objective: At the end of this exercise you shall be able to

· check the fitting of the kids garment.

PROCEDURE

Check the fitting of the Kids Garments (Fig 1)

- 1 Put on the garment right side out over a correct size Kids Dummy.
- 2 Check the length and width measurement of the garment is matching with the kids Dummy measurement.
- 3 The garment should properly hold and look nice as per the reference Sample.
- 4 Adjust the garments so that the Chest and Waist lines coincides with the chest and waist lines of dummy.
- 5 Side seams coincide with the side of dummy.
- 6 Make sure the openings are comfortable to wear.
- 7 Check whether the seam edges are finished so that they do not stick to the body.
- 8 Check whether it has a fashionable and an attractive fit.
- 9 Check whether it has fit smoothly over undergarments.
- 10 Check weather the appropriate amount of ease for body measurement.
- 11 Check the proper waistline length and fit.
- 12 Check Whether the design details that are properly placed on Dummy.
- 13 Check necklines and Armholes that fit the body without grapping or straining.

- 14 Check the skirt or pant length appropriate for the style.
- 15 Check the armhole and Neckline facing, flat, smooth and free from bulk.
- 16 Study overall appearance of the garment.
- 17 Check whether there are any wrinkles.
- 18 Note the changes in a paper if necessary.



pparel Exercise 1.8.44

Sewing Technology - Production Techniques

Sketch a gent's kurtha

Objectives: At the end of this exercise you shall be able to

- · sketch different types of kurtha
- · design suitable material for kurtha.

PROCEDURE

Sketch different types of kurtha

- 1 Sketch different types of kurtha given in the following figures (Fig 1-2) using 2H pencil in the catridge paper.
- 2 Use fine pencil lines for easy corrections.
- 3 Make necessary corrections after completing the sketches.
- 4 Draw the sketches with black fine liner.



5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

Design a garment suitable for gents

- 1 Design a garment according to the theme "Gents kurtha".
- 2 Decide the fabrics suitable for the designed garment.
- 3 Sketch the designed garment with its detailed style features.
- 4 Apply suitable colours to the garment with proper effects.



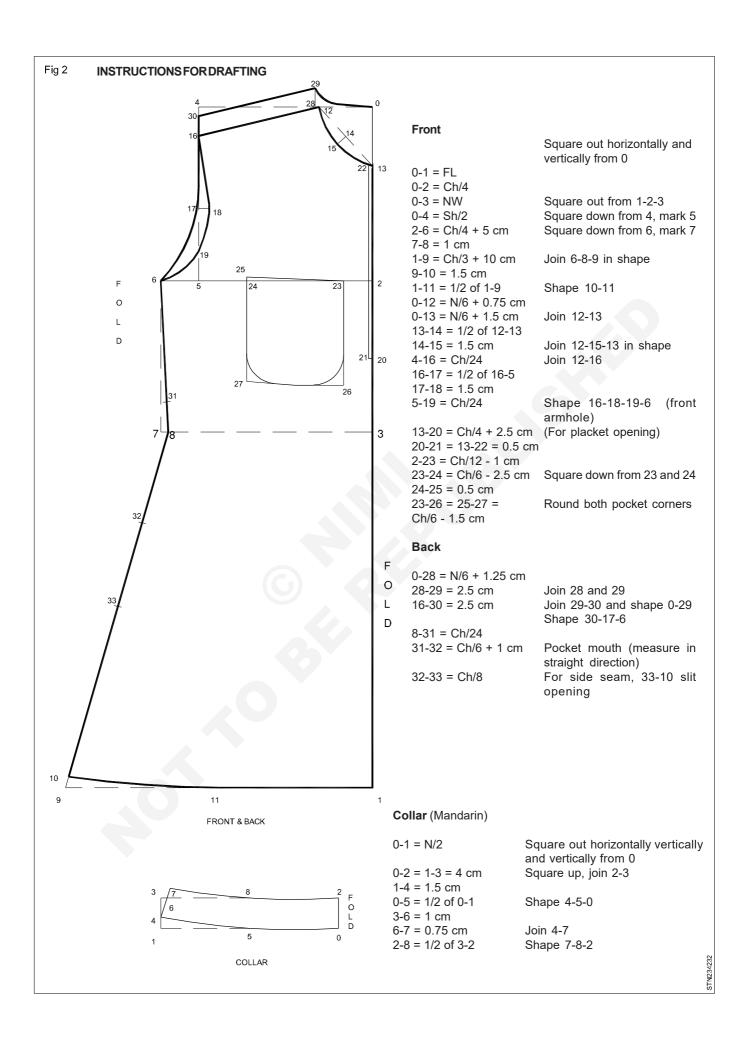
Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.44

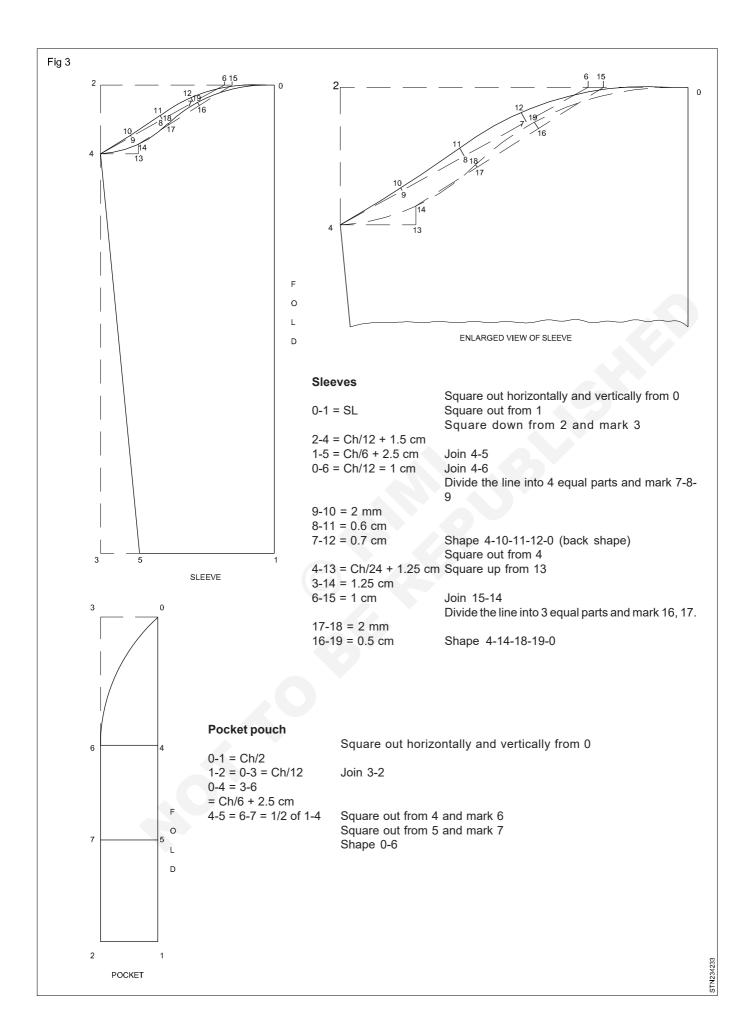
Construct a gent's kurta - Style I (Gents wear)

- · draft and cut the nehru kurta paper pattern following the instructions
- prepare master pattern from the cut paper pattern
- · lay and cut the required fabric components for stitching a nehru kurta
- sew the nehru kurta.

Requirements			
 Tools/Instruments Buttons Matching colour sewing thread Machine needle no.16 	- as reqd. - 1 No. - 1 No.	Press buttonsShow buttonsMaterials	- as reqd. - as reqd.
Hand needle Canvas	- 1 No. - as reqd.	 2.80 x 0.90 m Cambric/Poplin/Terycot Brown sheets Cut components of nehru kurta 	as reqd.2 Nos.as reqd.







TASK 1: Draft and cut the Nehru Kurta

- 1 Lay the brown sheet widthwise folded on the drafting table, with its wrong side facing.
- 2 Draft the pattern of front, back and collar on the first brown sheet and sleeve, pocket pouch on the other (as one brown sheet won't be enough to draft all the components).
- 3 Leave enough space around all the components while drafting.

TASK 2: Prepare master pattern from the cut paper pattern

1 Cut the prepared paper pattern of Nehru Kurta along the following cutting lines leaving enough space around them.

2 Nehru Kurta Pattern Cutting lines are:

Back Part 0-29-30-16-17-6-31-8-10-11-1-3-2-0
Front Part 13-28-16-18-19-6-8-10-11-1-3-2-13

Sleeve 0-15-12-11-10-4-5-1

Master pattern

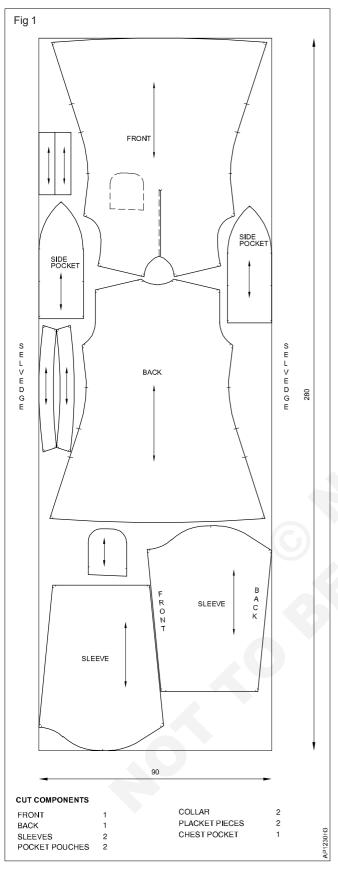
Add the mentioned master pattern allowances to the cut paper pattern.

Instructions for Master Pattern		Pocket pouch	0.75 cm all around
Front and back		Mandarin collar	
Shoulder, neck round and arm hole	0.75 cm	Top edge of collar and length ends	0.75 cm
Sides and bottom turning	1 cm	Lower edge	1 cm
Sleeve			
Top of sleeve, sleeve bottom,			
Under arm seam	1 cm		

- 1 Cut the excess brown sheet after drafting the master pattern.
- 2 Mark and cut notches at pocket position, placket markings etc.
- 3 Name all the master pattern components with their description for future reference.

TASK 3: Lay and cut the required fabric components for stitching a Nehru Kurta

- 1 Lay the Kurta fabric open on the cutting table with its wrong side facing.
- 2 Arrange the patterns of Nehru Kurta on the lay economically (Fig 1)
- 3 Mark the outline of the master patterns spread over the fabric.
- 4 Mark balance marks on pocket pouch, front open placket etc, to mark their positions.
- 5 Transfer the patch pocket position to the fabric, using a pin.
- 6 Remove the patterns and cut the fabric into Nehru Kurta Components.
- 7 Fold and tie all the components together to prevent it from missing.



TASK 4: Sew the Nehru Kurta

1 The cut components of Nehru Kurta are the following

Front \rightarrow 1	Collar $\rightarrow 2$
Back \rightarrow 1	Placket pieces \longrightarrow 2
Sleeves \rightarrow 2	Chest / patch pocket $ ightarrow$ 1
	Pocket pouches \rightarrow 2

- 2 Prepare two-piece placket.
- 3 Join the front and back parts together at their shoulders with a seam and topstitch it.
- 4 Prepare chest pocket (Patch pocket) and attach it on the left side of front part on mark.
- 5 Take the two collar pieces and prepare Mandarin collar.
- 6 Attach the prepared collar to the gorge (neckline)

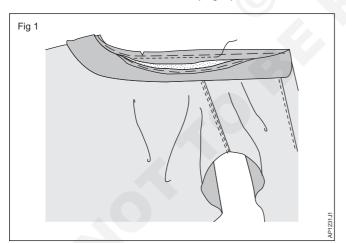
- 7 Attach sleeve on armhole with shirt sleeve method.
- 8 Stitch under arm seam and side seam matching the balance marks, leaving the pocket mouth and slit on the marks.
- 9 Stitch and finish Kurta pocket.
- 10 Finish slit and bottom by hand hemming.
- 11 Divide placket in four equal parts from collar and mark button hole positions on the centre of placket
- 12 Mark, cut and work out button holes.
- 13 Tack buttons of appropriate size on the button stand placket.
- 14 Finish and press.

Skill Sequence

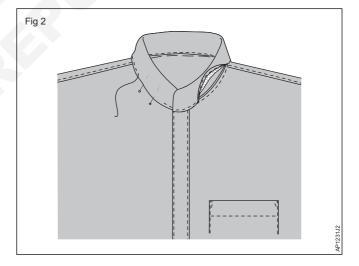
Attaching mandarin collar

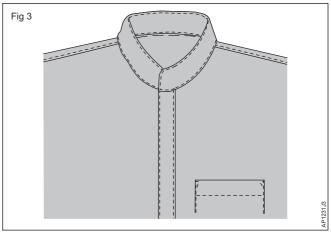
Objective: This shall help you to

- · attach the mandarin collar to nehru kurta.
- 1 Tack the centre of under part of collar to back neck centre and both collar ends with both neck ends in front, right side of collar piece with wrong side of the body part together. Baste slightly away from seam allowance line and stitch on the seam line. (Fig 1)



- 2 Turn the upper part of collar on the right side of the body part to align with the neck seam line. Baste the collar lower edge along the neck seam line and stitch with machine. (Fig 2)
- 3 Make top stitch from right side on all sides of the collar 2 mm away from the edge. (Fig 3)





Attaching sleeve

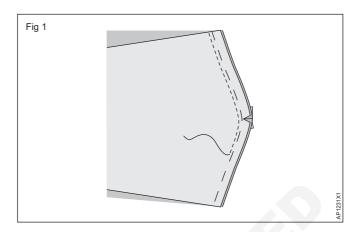
Objective: This shall help you to

• stitch the sleeve to armhole with shirt-sleeve method.

1 In this method the side seams of bodice and sleeve are still unstitched so that two flat pieces are joined. Unfold bodice on shoulder seam line and place it flat. With right sides together, match the centre of sleeve and shoulder seam and pin sleeve to armhole.

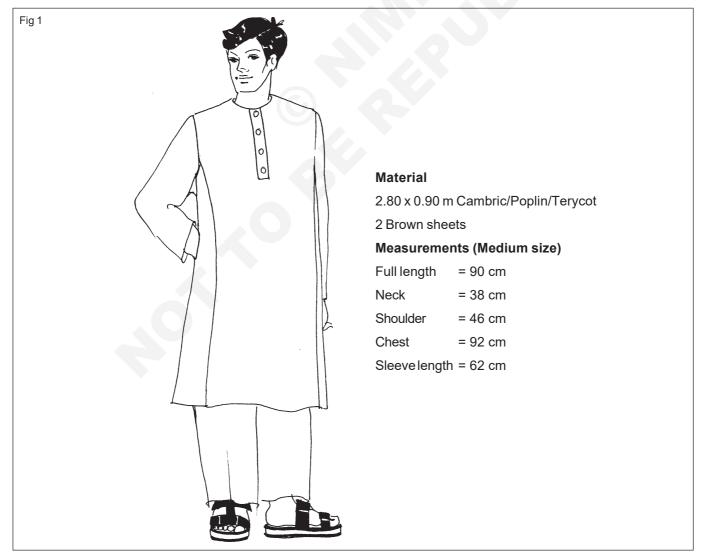
Take care to select the appropriate sleeve so that shape of the sleeve crown and armhole are matching.

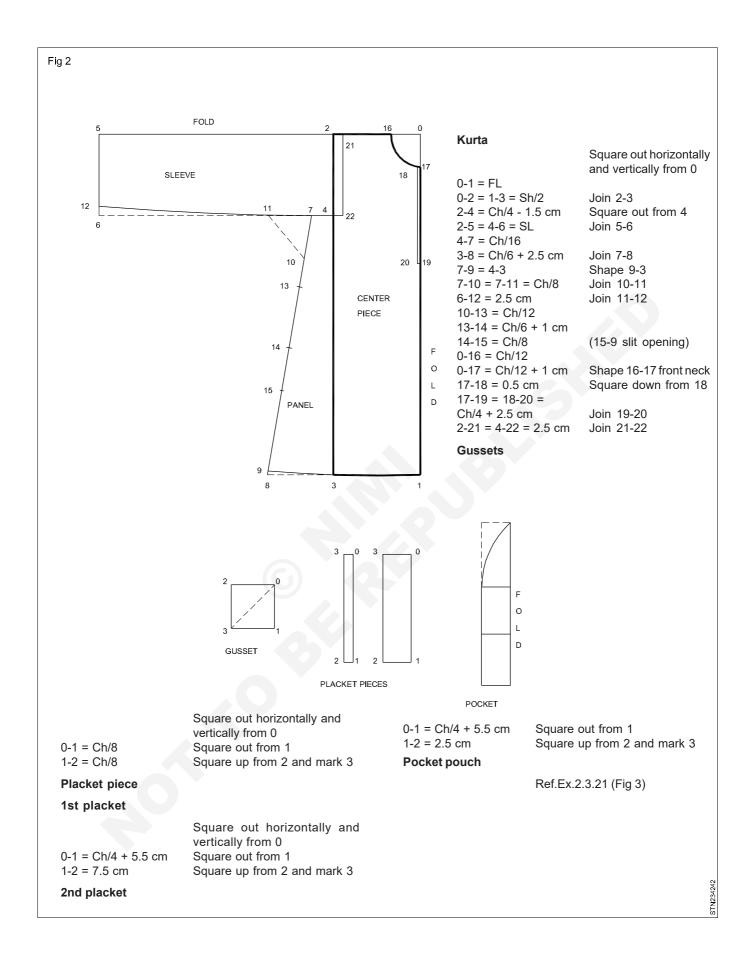
2 Control ease in sleeve with pins. Baste and stitch. (Fig 1)



Construct a gent's kurta - Style II

- · draft & cut the kalidhar kurta paper pattern
- · draft the kalidhar kurta master pattern
- · lay and cut the kurta fabric components for stitching
- · sew the kalidhar kurta.





TASK 1: Draft and cut the Kalidhar Kurta paper pattern

- 1 Lay the brown sheet open on the drafting table with its wrong side facing.
- 2 Draft all the Kurta Pattern following the instructions for drafting.
- 3 Take another half brown sheet and mark the back part centre piece measurements alone. Leave enough space around for drafting master pattern.

Pattern cutting

- 1 Cut the prepared paper pattern along the following cutting lines except the back part centre piece, gusset piece.
- 2 Placket and pocket pouch, which has to be cut leaving space around them for master pattern

3 Cutting lines of kalidhar kurta are the following:

Centre Piece

(Back) — 0 - 2 - 3 - 1 - 0

(Front) 17 - 16 - 2 - 4 - 3 - 1 - 17

Panel 4 - 7 - 9 - 3 - 4

Sleeve ____ 21 - 5 - 12 - 11 - 22 - 21

Gusset ____ 0 - 2 - 3 - 1 - 0

Placket

(First) \longrightarrow 0 - 3 - 2 - 1 - 0

(second) \longrightarrow 0 - 3 - 2 - 1 - 0

Pocket — → As on Ex.2.30

TASK 2: Draft the Kalidhar Kurta master pattern

- 1 Lay the other half of the brown sheet on the drafting table and mark the outlines of front centre piece, panel and sleeve with space all around them to draft the master pattern as per the instructions shown.
- 2 Add the master pattern allowances to all the other components with in the space already provided in the paper pattern.
- 3 Cut the drafted master pattern using sharp pointed scissors.
- 4 Mark and cut notches to note the pocket, placket positions etc.
- 5 Name all the cut components of kalidhar kurtha with their description for future reference.

Instructions for Master Pattern

Centre piece

Neck round, sides of centre piece 0.7 cm
Bottom turning 1 cm
Sleeve, top and side 0.75 cm

Panels

Top, straight and slant side 0.75 cm Bottom turning 1 cm

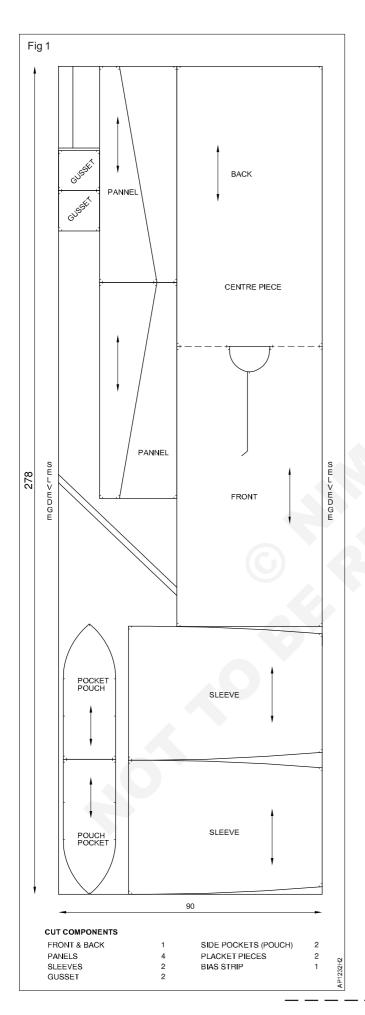
Pocket pouch 0.75 cm on all around

Gusset 0.75 cm all around

TASK 3: Lay and cut the kurta fabric components for stitching

- 1 Lay the kalidhar kurta fabric open on the cutting table with its wrong side facing.
- 2 Spread, arrange and mark the outline of the kurta master pattern as required.
- 3 Mark the front & back centre piece patterns. as shown in Fig 1, as there is no cutting in between them (i.e) the garment do not have shoulder seam. Cut only the shape of neck.
- 4 Mark the patterns as many numbers required and remove the master pattern.

- 5 Check for the grain lines of all the patterns before cutting.
- 6 Mark & cut notches and balance marks at required positions.
- 7 Cut the kurta components using a sharp pointed scissors on the marked outline.
- 8 Fold & tie all the components together, which is ready for stitching a kalidhar kurta.



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.44

TASK 4: Sew the kalidhar kurta

Style Features	Materials and Trimmings
Front openKali/Panel piece attachement	Cut components of Kalidar Kurta4 buttons
Side pocket	Matching colour sewing thread
	Machine needle No.16Hand needle

The cut components of kalidar kurta are

Front and back	1	Placket pieces	2
Panels/Kali pieces	4	Bias strip	1
Sleeves	2		
Gusset	2		
Side pockets (pouch)	2		

- 1 Prepare two-piece placket.
- 2 Finish neck with bias strip facing, make 0.5 cm wide hem.
- 3 Stitch the gusset piece with side panels and stitch the sides together leaving pocket-mouth and slit on the marks.
- 4 Join sleeve and side panels with center panel. Finish

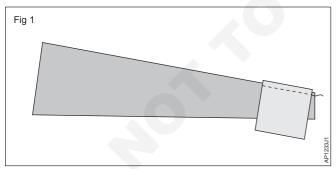
seam by flat and felled seam. Use hand hem stitches.

- 6 Finish side seam, pocket-mouth, slit and bottom by hand hemming.
- 7 Close pocket-mouth by catch stitch.
- 8 Make pocket pouch and attach it in position.
- 9 Divide placket in four equal parts leaving 0.5 cm from top edge and mark button hole positions on the centre of placket.
- 10 Mark, cut and work out button holes.
- 11 Tack buttons of appropriate size on the button stand placket.
- 12 Finish and press.

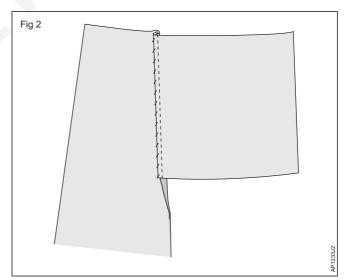
Attaching gusset

Objective: This shall help you to

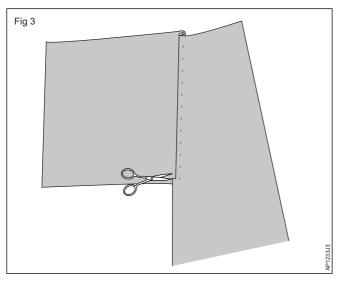
- join gusset piece with the side panel.
- 1 Match gusset piece and panel piece right sides on top of side panel along warp grain of fabric. Extend gusset piece by 3 mm on the side, baste and make a plain seam to join both pieces (0.5 cm seam allowance). (Fig 1)



- 2 Fold extended seam allowance of gusset over the seam allowance of panel. Hem with flat and felled seam by hand to the panel position. (Fig 2)
- 3 Clip the seam allowance of panel 0.5 cm above the gusset. (Fig 3)
- 4 Take another side panel and match right side with the right side of gusset (similar way of the previous one) from the clipped points, extend the gusset for seam allowance and baste. (Fig 4)

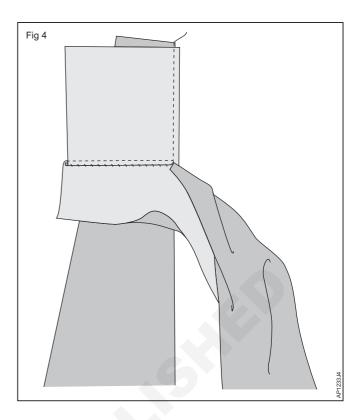


- 5 Pin and baste raw edges of panels together to make a side seam in continuation of gusset. Make a plain seam right from the top up to pocket-mouth notch maintaining equal seam width.
- 6 Finish the seam making felled seam by hand.



7 Join the gusset and side panels for other side of kurta in the same process.

In all operations gusset portion is always to be extended while joining panels and sleeves.



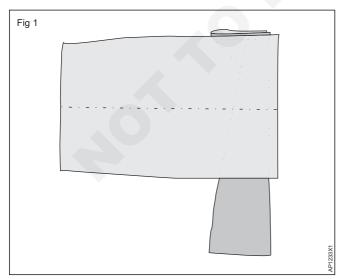
Attaching sleeve

Objective: This shall help you to

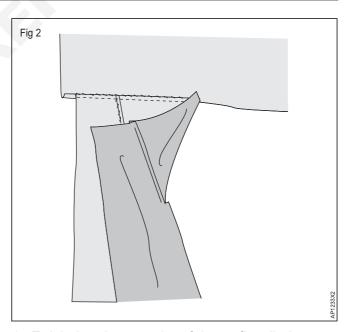
· join sleeve, gusset, side and centre panel.

1 Baste right side of sleeve under arm seam line with right side of joined gusset and side panel. (Fig 1)

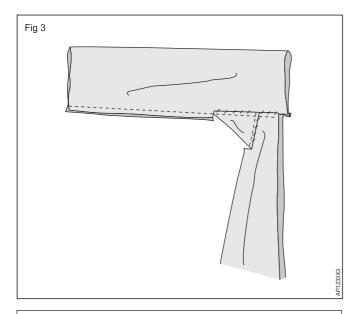
Take care that raw edge of sleeve extends over raw edge of side panel by 2 cm. Raw edge of gusset and panel piece must extend raw edge of sleeve by 3 mm.

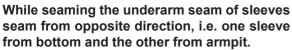


2 Make a plain seam. Take seam allowance of 0.5 cm from sleeve edge. Turn extended (3 mm) portion over the seam. Turn once again and make felled seam by hand. (Fig 2)

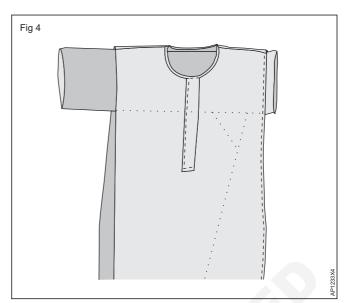


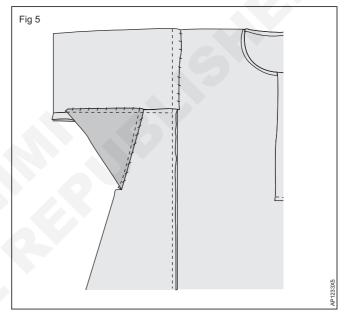
3 To join the other raw edge of sleeve, first clip the seam allowance at the end of gusset. Fold the sleeve with right sides of fabric facing. Match underarm of sleeve. Extend gusset side by 3 mm, make a plain seam up to the sleeve bottom. Turn the extended portion of seam allowance over the seam. Again turn the remaining and make a full seam by hand. Repeat the process for the other side. (Fig 3)





- 4 Match right side of sleeve and center panel on shoulder line end and middle of sleeve leaving 2 cm of sleeve for making felled seam along skye line line. (Fig 4)
- 5 Baste on the wrong side at a distance of 0.75 cm right from shoulder line to the bottom line on either side, i.e. back and front side. Make a plain seam from one bottom to the other. Finish the seam by making felled seam by hand. (Fig 5) Repeat the same process for the other side.





Sketch a gent's pyjamas

Objectives: At the end of this exercise you shall be able to

- · sketch different types of pyjamas
- · design a pyjamas suitable for gents.

Sketch different types of gent's pyjamas

- 1 Sketch the different types of gent's kurtha given in the following figure (Fig 1 and 2) using 2H pencil in the cartridge paper.
- 2 Use fine pencil lines for easy correction.
- 3 Measure necessary corrections after completing the sketches.
- 4 Draw the sketches with black fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

Design a gents pyjamas

- 1 Design a garment according to the theme "Gents pyjamas".
- 2 Decide the fabrics suitable for the designed garment.
- 3 Sketch the designed garment with its detailed style features.
- 4 Apply suitable colours to the garment with proper effects.





Construct a gent's pyjama - Style I

- draft and cut the paper pattern of at aligarh pyjama
- prepare master pattern
- · lay and cut the pyjama components for stitching
- sew the aligarh pyjama.



Measurements (Medium size)	Material
Full length = 56 cm Knee length = 61cm Hip = 100cm Round bottom = 40cm	2.10x0.90m Longcloth/Poplin/Terycot 1 Brown sheet

TASK 1: Draft and cut the paper pattern of aligarh pyjama

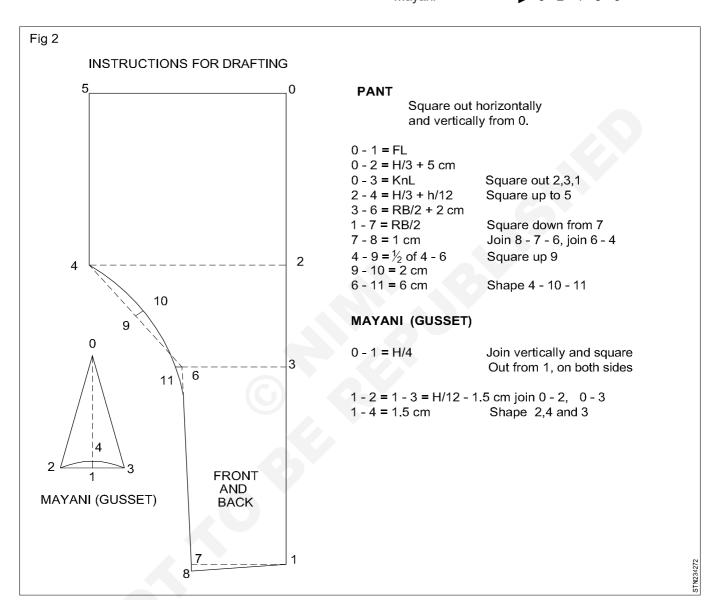
- 1 Lay the brown sheet width wise on the folded drafting table, with its wrong side facing.
- 2 Leave enough space around the components and draft.
- 3 Draft the front and back part of the pyjama following the instructions. Similarly, draft the mayani pattern also.(Fig 2)

Pattern cutting

- 1 Cut the prepared paper pattern along the following cutting lines, leaving enough space around.
- 2 Cutting lines are

Front and Back — 0 - 5 - 4 -10 -11 - 8 -1 - 0

Mayani — 0 - 2 - 4 - 3 - 0



TASK 2: Prepare master pattern

- 1 Add the provided master pattern allowances to the cut paper pattern.
- 2 Cut the master pattern along with the added allowances.
- 3 Mark and cut balance marks on casing line. Knee line and on turning line for maintaining the balance in the garment.
- 4 Name the master pattern with their descriptions. measures etc for future reference.

Instructions for master pattern

Casing turning 5 cm

Crotch line 1 cm

Inside leg length 1.5 cm

Round bottom turning 4 cm

Slant sides of mayani (gusset) 1 cm

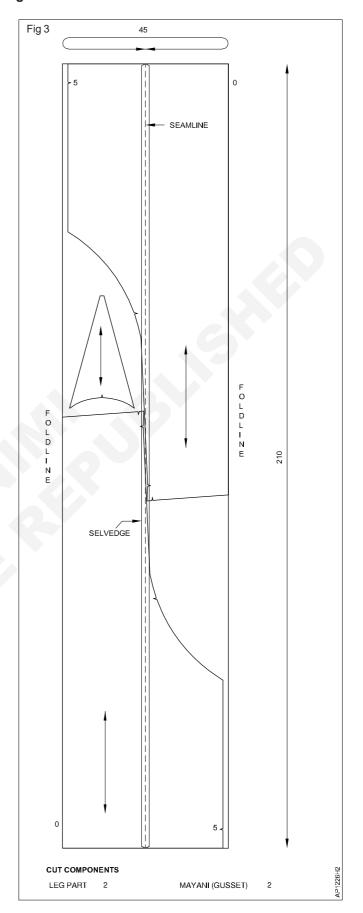
Base curve of mayani (gusset) 1.5 cm

TASK 3: Lay and cut the pyjama components for stitching

- 1 Preparing the layout: Take the material and fold it lengthwise and form a press open seam lengthwise leaving 1cm seam allowance from selvedge.
- 2 Move and set the seam line in the centre the width, so that fold will come on both sides, press it.
- 3 Lay the fabric on the cutting table.
- 4 Place the master pattern on the fabric (Length line of pattern on fold line of fabric, waistline on edge of fabric). Mark the outline and balance marks along the pattern edge (Fig 3)
- 5 Remove the pattern and cut on the marked lines with a sharp pointed scissors.
- 6 Cut the balance marks on knee line and mayani centre (4).

You can also cut the mayani on bias grain.

7 Fold & me all the cut components of pyjama together, which is ready for stitching.



TASK 4: Sewing of aligarh pyjama

Style Features	Materials and Trimmings	
Mayani (Gusset piece)AttachmentFold down casing at	 Cut components of Aligarh Pyjama Matching colour sewing Thread Machine needle No.16 	
Waistline	Hand needle	

1 The cut components of aligarh pyjama are

Leg part

2

Mayani (Gusset) 2

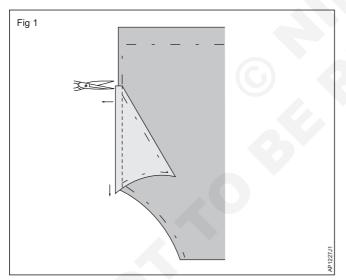
2 Fix the gusset piece (mayani) and prepare the fold down casing.

- 3 Stitch inside leg seam (Plain seam)
- 4 Prepare 3 cm wide ready bottom hem.
- 5 Finish and press it.

Attaching gusset and finishing waistline

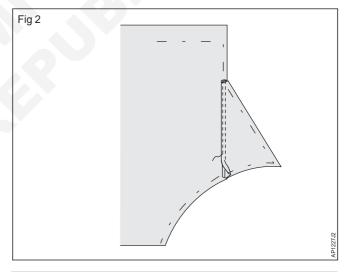
Objective: This shall help you to

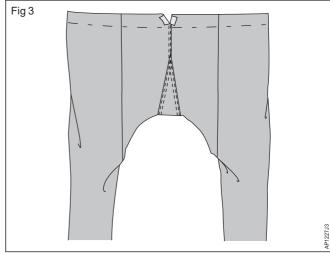
- fix the mayani (gusset) and to make the fold-down casing.
- 1 Place the mayani piece on one of the leg pieces on crotch line, right sides together; place the short side of triangle towards leg side, the long side of triangle has to extend the lowest point and the edge of crotch line by 1 cm. (Fig 1)



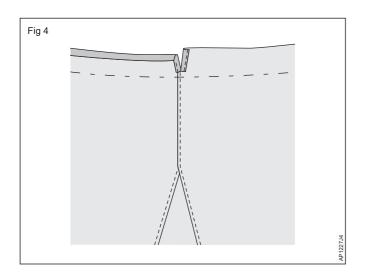
- 2 Clip seam allowance at the top of leg piece where the mayani seam finishes. Unfold leg and mayani piece, wrong sides upwards. Make flat and felled seam by basting. Stitch from top of right side. Now the crotch line is extended by mayani piece. (Fig 2)
- 3 Attach the other leg piece; stitch with flat seam along the crotch line leaving 4 cm at waistline for opening of fold-down casing, so that the seam will come 1 cm above the turning line. (Fig 3)
- 4 Repeat the same process on the crotch line of other mayani piece.
- 5 From the wrong side of pyjama turn the unstitched raw edges which are left open on waist for the fold-down

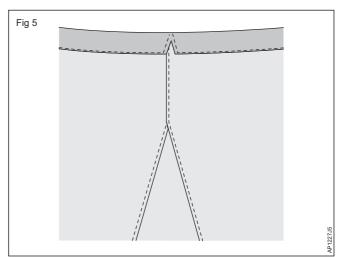
casing by 0.5 cm. Turn the top edge of pyjama to wrong side by 1 cm. (Fig 4)





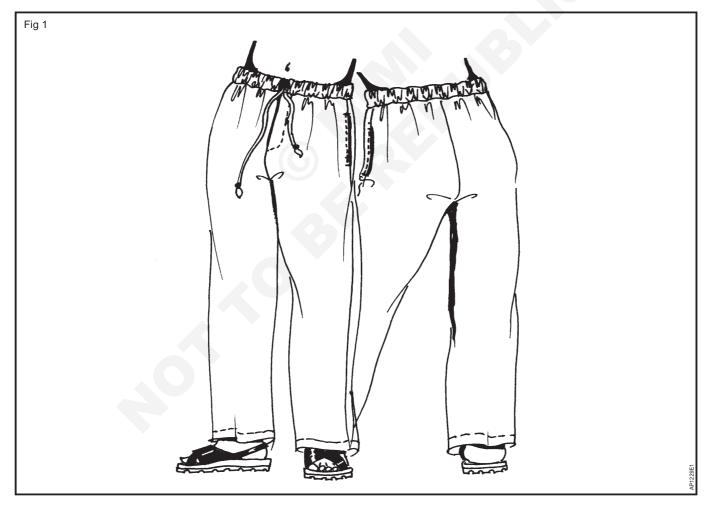
6 Again turn fabric for fold-down casing by 4 cm on wrong side. Baste it and stitch with machine. (Fig 5)



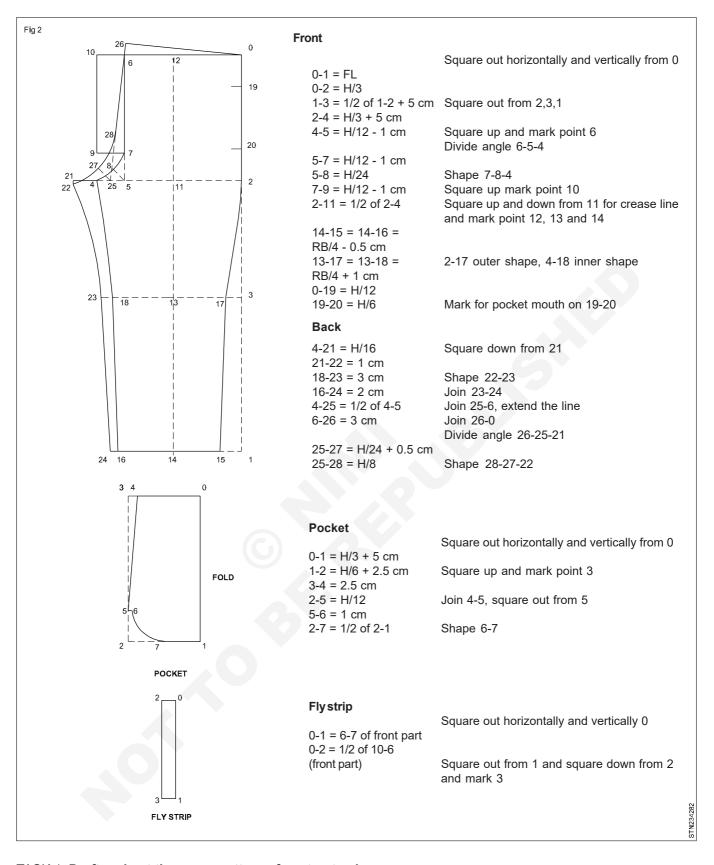


Construct a gent's pyjamas - Style II

- draft and cut the paper pattern of pant-cut pyjamas
- · draft the master pattern of pant- cut pyjamas
- sew the pant-cut pyjamas.



Measurements (Medium)	Material Material
Length = 105cm Hip = 100cm Round bottom = 56cm	2.75 x 0.90m Longcloth/ Poplin/ Terycot 1 Brown sheet



TASK 1: Draft and cut the paper pattern of pant-cut pyjama

- 1 Lay the brown sheet widthwise folded on the drafting table with its wrong side facing upwards.
- 2 Draw the drafting of pyjama components leaving enough space all around the drafting.
- 3 Follow the instrcutions for drafting.

Paper cutting

- 1 Cut the drafted paper pattern along the following cutting lines leaving enough space around them for preparing master pattern.
- 2 The pattern cutting lines of pant cut payjama are the following.

Leg part

(Front) 0-10-9-7-4-18-16-15-17-2-0

(Back) 0-26-28-27-22-23-24-15-17-2-0

Pocket — 0-4-5-6-7-1

Fly Stripp — 0-2-3-1-0

TASK 2: Draft the master pattern of pant-cut pyjama

1 Add the master pattern allowances to the cut paper pattern in the space around them as provision for hems, turnings, seams etc.

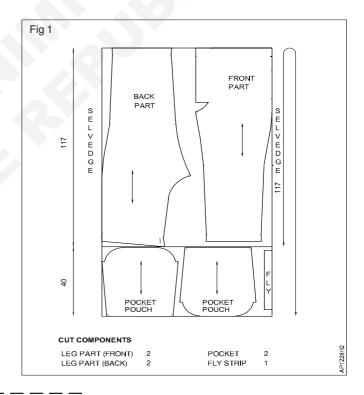
Instructions	for	master	pattern
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Fly,crotch line, leg length 1 cm
Pocket 5 cm
Waist line 4 cm
Bottom line 1 cm
Three sides of fly strip 1 cm
(leaving one length without allowance)

- 2 Cut the master pattern with the marked allowances.
- 3 Mark and cut balance marks at pocket position, knee, bottom, casing line etc.
- 4 Name all the cut master pattern components with their description for future reference, using a permanent marker.

TASK 3: Sew the pant-cut pyjamas

- 1 Lay the fabric open on the cutting table with its right side facing upwards.
- 2 Fold the length of fabric equal to the length of back component of pattern.
- 3 Lay other components on single layer (i.e 117cm on double layer, 40cm on single layer).(Fig 1)
- 4 Mark the pattern (outline and notches) on cloth.
- 5 Remove the pattern and cut along marked outlines and transfer the marks to the lower layer using the tracing wheel.
- 6 Fold and tie together all the cut fabric components of pyjama (Pant-cut) which is ready for stitching.



TASK 4: Sew the pant-cut pyjama

264

Style Features	Materials and Trimmings	
Fly Inseam side pockets	 Cut components of Pant - cut pyjama Matching colour sewing Thread 3 buttons Machine needle No.16 Hand needle 	

The cut components of pant-cut pyjama are

Leg Part (Front) 2

(Back) 2

Pocket 2

Fly Strip

- 1 Prepare and fix both inseam sidepockets on both the front leg side. Set pocket top 8 cm below the leg top.
- 2 Prepare the fly. (SS.No.1)
- 3 Join front and back piece while stitching side seams with plain seam.

Don't stitch the pocket mouth.

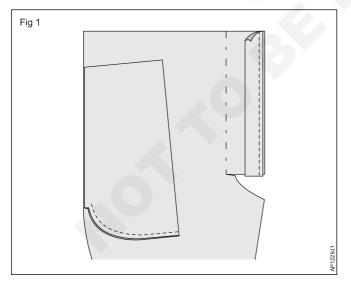
- 4 Stitch the inside leg length with felled seam. Start working on fork point towards bottom side. (SS.No.2)
- 5 Stitch the crotch line with flat seam up to the fly.
- 6 Turn and stitch the fold-down casing by 4cm ready, i.e. 1 cm is turned inside.

- 7 Finish the bottom line by 3 cm ready broad hem i.e. 1 cm is turned inside.
- 8 Lock the fly horizontally with two seam lines at a distance of 0.5cm. Overlap the fly-button hole part upon button placket part.
- 9 Stitch 3 button holes from right side and stitch 3 buttons on fly. Place one button hole at a distance of 4 cm (H/24) from the lock of fly. Place the other button holes in equal distance upto the hem of casing. Fix buttons according to holes.
- 10 In between the buttonholes lock the fly on edge with 2-3 hand stitches of 2mm. Stitches should not be visible on the right side.
- 11 Finish the garment.
- 12 Press the garment, join inner and outer legseam in both leg parts together, place the garment on the pressing table without any folds and wrinkles. Press carefully. In centre of front and back a crease line will appear.

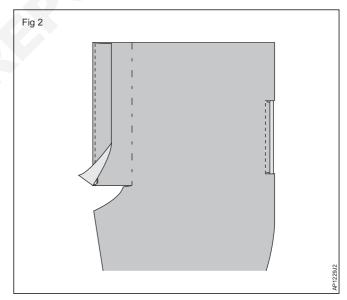
Extended fly

Objective: This shall help you to

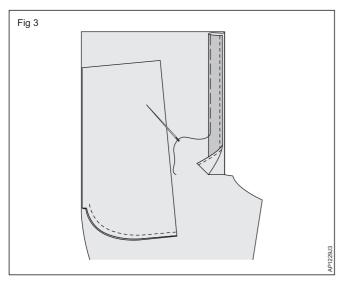
- fold and stitch the extended fly and to prepare bound button hole on waistline.
- 1 Put the left leg front part with wrong side up. Clip 0.75 cm at the end of extended portion of fly. Take a strip of 33.3 cm (H/3) x 4 cm. Pin the strip on the edge of the extended piece for the fly. Stitch a plain seam on the outer edge. (Fig 1)

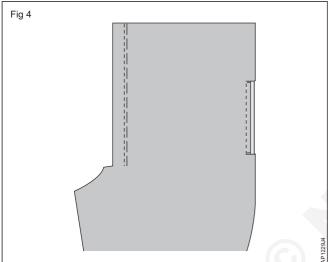


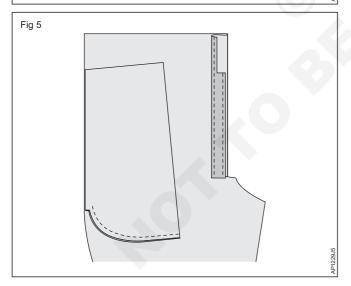
- 2 Turn the strip towards right side of the fabric. Baste on the raw edge of the strip, 2 mm from the opposite edge. (Fig 2)
- 3 Fold the extended piece inside right from the fly line. Turn back and fold the strip on center to the fly line, leaving 2 to 3 mm distance on the edge. Baste on fold line. (Fig 3)



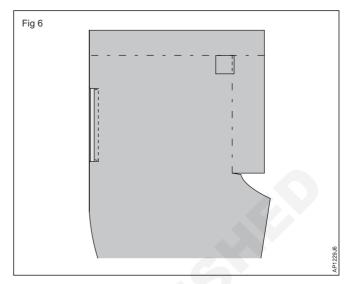
- 4 Seam on the fold from right side of fabric 2 mm away from the edge, so that the seam holds all the layers. Take basting line as guidance. (Fig 4)
- 5 Cut out a rectangular piece (8 cm) from the upper portion of the fly to reduce bulk. Cut out only lower folded layer. (Fig 5)



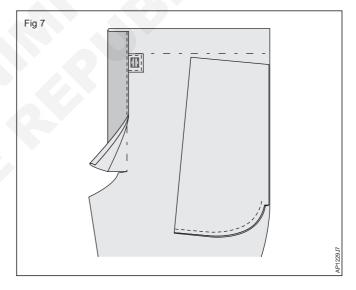




6 Take the right leg front piece of fabric, with right side of fabric up. Take a 4 cm square piece of fabric. Place it below the fold-down casing line extending the fly line by 0.5 cm. Prepare a bound button hole in vertical direction. (Fig 6)



7 Turn the raw edge of the extended piece for fly by 0.75 cm to the wrong side of fabric, turn it twice upto the clipping (fly line). (Fig 7)

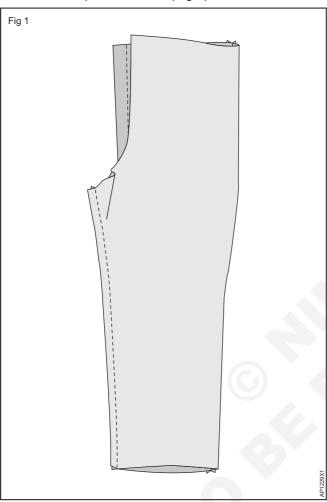


Inside leg seam

Objective: This shall help you to

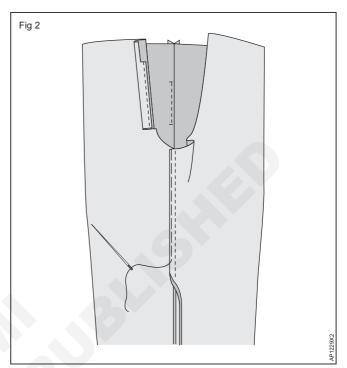
• perform the flat and felled seam on inside leg length, i.e. on a tube/circle of garment.

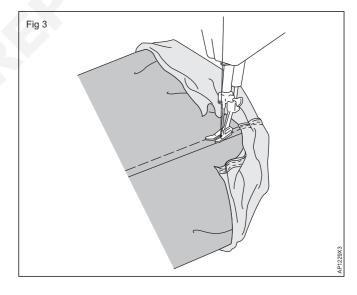
1 Bring fork point to needle plate. Work from wrong side of the garment. Baste the inner leg seam. Back piece of garment has to overlap the front piece by 1 cm at raw edges. Stitch along basting line with machine, that is the first step of flat seam. (Fig 1)



- 2 Turn overlapping edge of back side to front side. Again turn but separate the two layers of front and back piece by forming a tube. Pin and baste maintaining tube shape. (Fig 2)
- 3 Turn the garment to right side. Place fork point under the presser foot. Stitch along the baste line. Take care

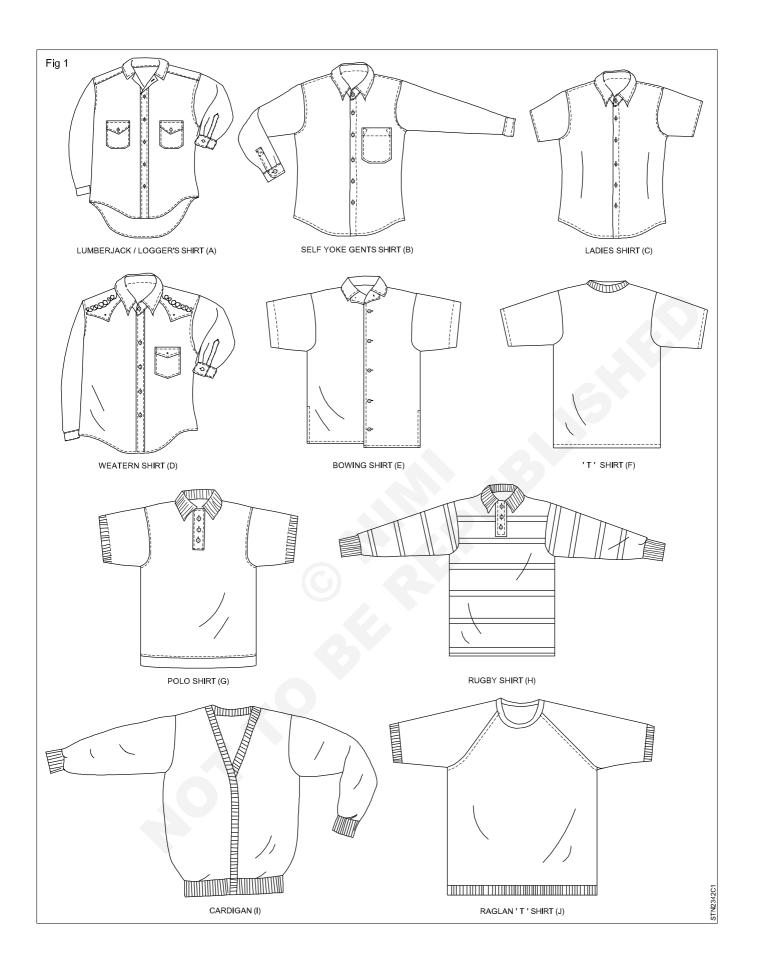
to wrinkle the upper portion of leg piece because you have to stitch inside the tube. (Fig 3)





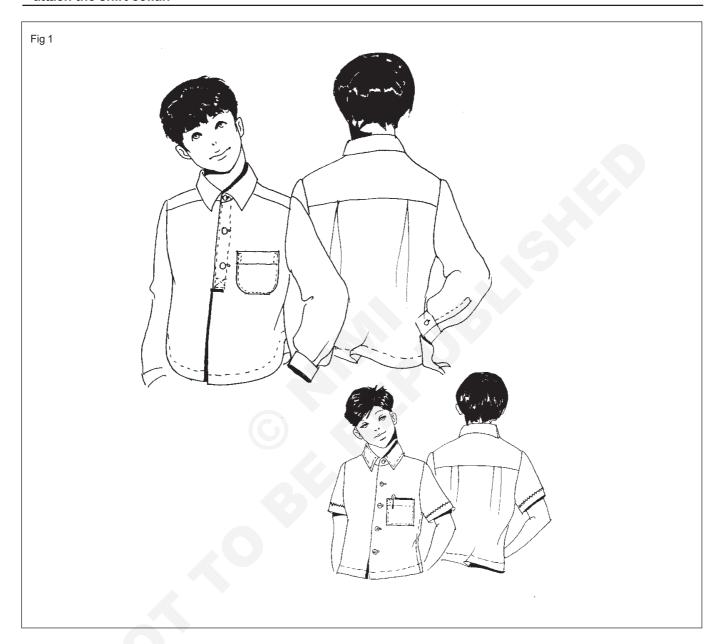
Sketch a gent's shirts

- · sketch different types of shirts.
- 1 Sketch different types of shirts: Sketch the different types of shirts given in the following figures (Fig 1) using 2H pencil in the cartridge paper, use fine pencil lines for easy corrections.
- 2 Make necessary corrections after completing the sketches.
- 3 Draw the sketches with Black fine liner.
- 4 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of

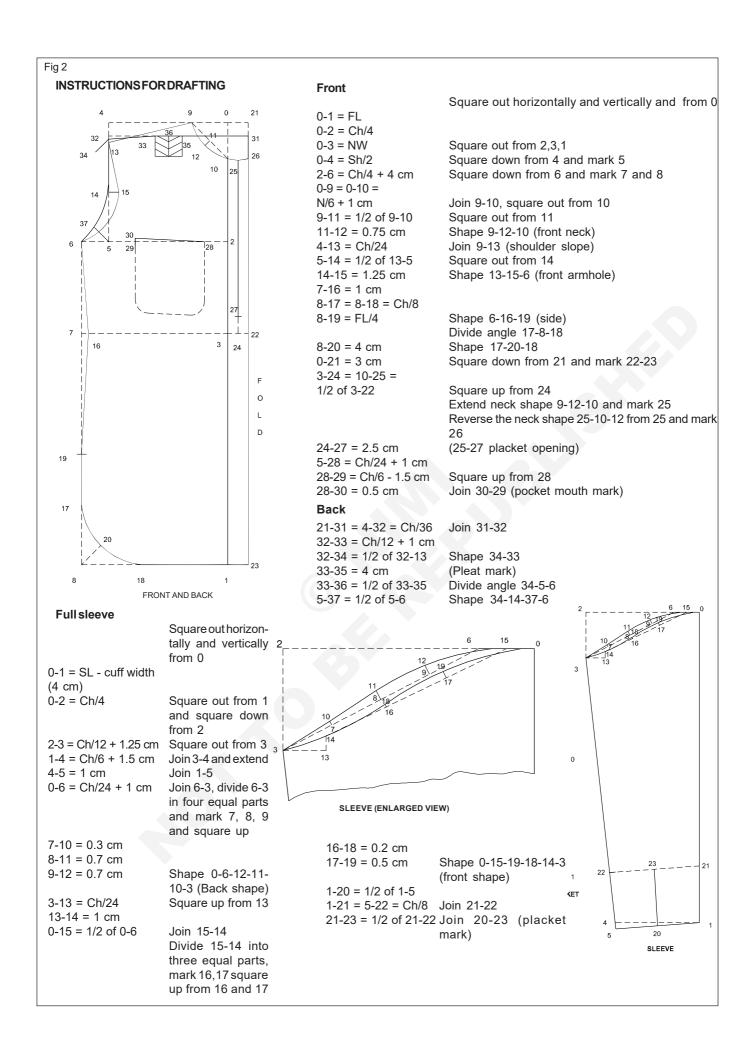


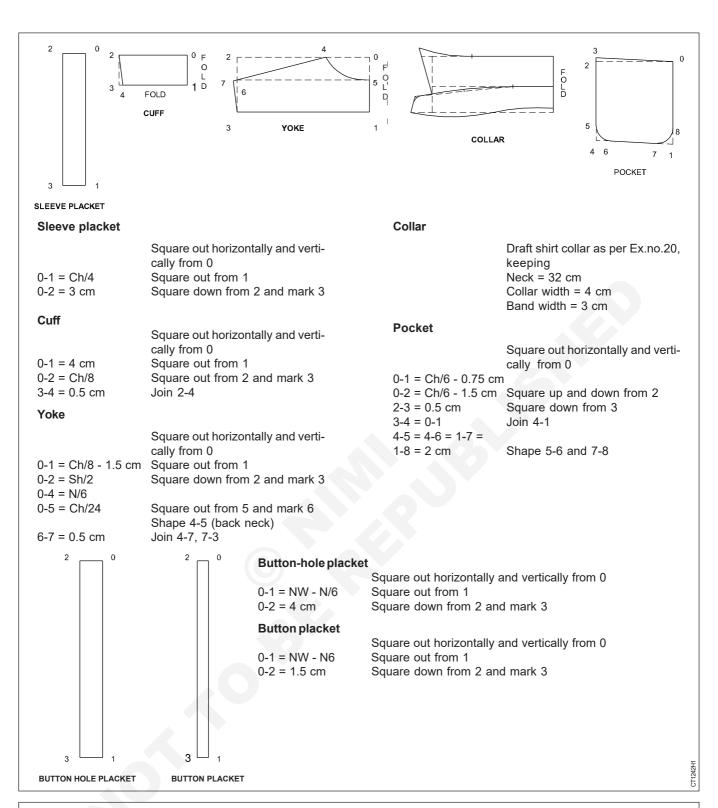
Construct a gent's shirt - Style I

- stitch a sleeve with yoke and 2 side pleats in back
- stitch and attach a cuff
- fix the yoke on back
- attach the shirt collar.



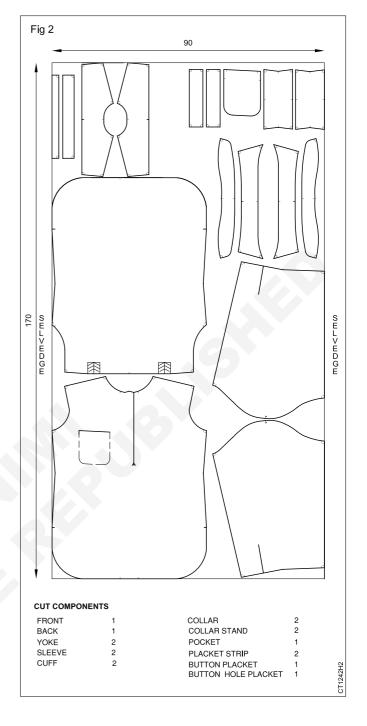
Measurements	Material
Full length = 80 cm Natural waist = 44.6 cm Neck = 40 cm Shoulder = 42 cm Chest = 100 cm Sleeve length = 65 cm	2.50X 0.90 m Terycot/Cotton (Shirt material) 0.15 x 0.90 cm fusing material 8 buttons





INSTRUCTIONS FOR MASTER PATTERN		Placket strip	0.75 cm all around three
Front and back			sides
neck, shoulder, armhole	0.75 cm	Pocket	
side and bottom	1 cm	mouth turning	3 cm
Sleeve		all other three sides	0.75 cm
side and bottom	1 cm 0.75 cm	Button and button hole plackets	
sleeve crown		three sides	0.75 cm
Yoke		no seam allowance at one longer side	
neck, shoulder, side bottom	0.75 cm 1 cm		

- Draft paper pattern according to given measurement. (Fig 2)
- · Prepare master-pattern.
- Lay pattern on wrong side of fabric, transfer marks with chalk and cut all the components. (Fig 3)
- Transfer marks of pleats, pocket, placket with tracing wheel on lower layer.
- Take pattern for collar and cuff and mark on fusing (without seam allowance) and cut.
- Prepare half open placket (Italian placket) at front part.
- Prepare chest pocket (patch pocket) and attach it on the left side of front part on mark.
- Set reverse pleats on back part on mark. Attach yoke and join front and back pieces. (SS.No.1)
- · Prepare one piece placket on sleeves at mark of slit.
- Attach sleeve on armhole with shirt-sleeve method.
- Stitch under arm seam and side seam matching the balance marks.
- · Prepare and attach cuff with sleeve. (SS.No.2)
- Prepare shirt collar and attach with gorge (neckline). (SS.No.3)
- Turn the bottom by 0.25 cm first, then take 0.5 cm for second turn on front and back of shirt.
- Overlock all raw seam allowances.
- Cut and make one-bar-one-fan buttonhole in horizontal position on collar stand (left side). Place it in centre of stand, 1 cm away from edge.
- Divide the remaining distance of opening into four equal parts and make three vertical one-bar-one-fan butto holes, 1 cm away from edge.
- · Stitch buttons accordingly.
- Stitch button and button hole in the centre of each cuff 1 cm away from edge, place them in horizontal direction.
- · Finish and press.

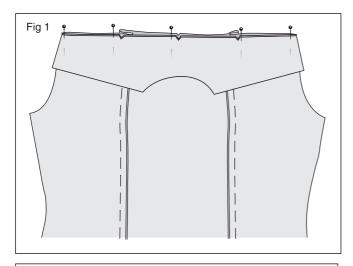


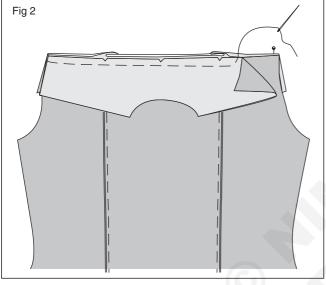
Yoke

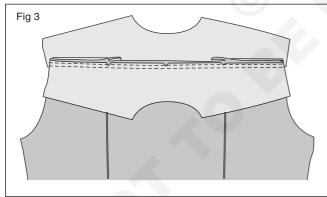
Objectives: This shall help you to

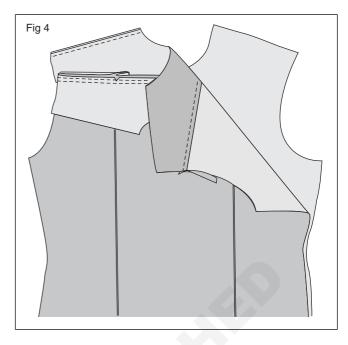
· fix yoke on back.

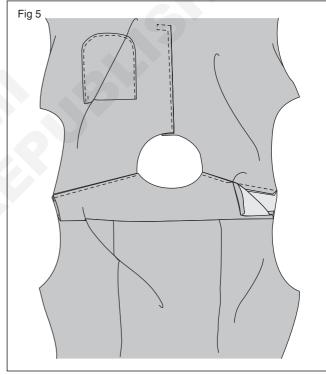
- 1 Set 2 reverse pleats on marks and baste.
- 2 Match raw edges of one yoke piece (neckline down) with back on notches of centre front lines, wrong side of back and right side of yoke together. (Fig 1)
- 3 Take other yoke piece and place it on back piece with right sides and upper raw edges together. Stitch. (Fig 2)
- 4 Turn lower part of inside yoke (neckline on top) and stitch seam allowance to inside yoke. (Fig 3)
- 5 Join lower yoke with front bodice on shoulder line. Stitch on both shoulder lines leaving seam allowance. (Fig 4)
- 6 Turn the raw edge of upper yoke at shoulder line by 0.75 cm. Place over seam allowance of lower yoke and stitch with top stitch. (Fig 5)







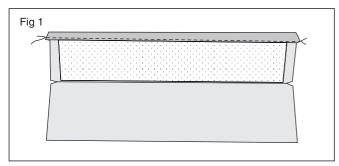


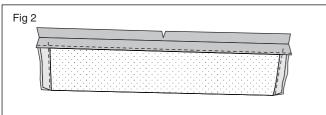


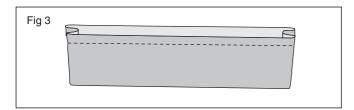
Attaching cuff

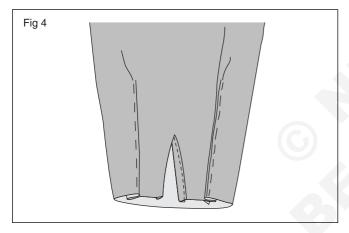
Objective: This shall help you to

- prepare and fix cuff to sleeve bottom.
- 1 Place cuff pattern over fusing and cut two pieces. Leaving seam allowance on three sides place fusing piece on wrong side of the material.
- 2 Turn the longer edge of seam allowance inside. Baste and stitch 0.75 cm away from edge on right side. (Fig 1)
- 3 Fold cuff on centre line, right sides together. Baste and stitch from fold side leaving 2 mm unstitched at the folded edge and lock the stitch. (Fig 2)
- 4 Turn the cuff inside out (take care of corner). Cut notch at centre of raw edge. Press. (Fig 3)
- 5 Press the placket inside and measure the sleeve bottom. The difference between cuff length and sleeve bottom is the measurement for two pleats. Prepare 1st side pleat at side seam. Prepare another side pleat at the same distance on the other side placket. (Fig 4)

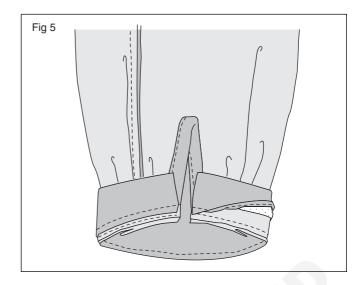




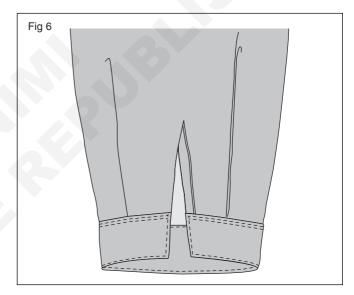




6 Baste and stitch underside of cuff (unfused) to wrong side of sleeve bottom matching centre marks. (Fig 5)



- 7 Turn the cuff unit up and press seam allowance inside the cuff. Then press the cuff from folded edge.
- 8 Baste the sleeve bottom along with cuff edge through all layers. Stitch 2 mm away from edge along sleeve bottom and cuff. Lock the stitch and press. (Fig 6)



Attaching shirt collar

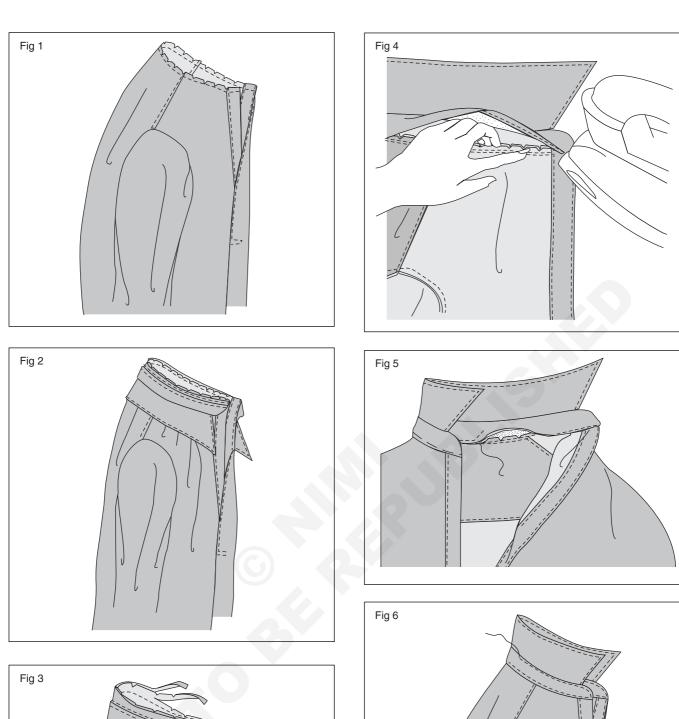
Objective: This shall help you to

attach shirt collar.

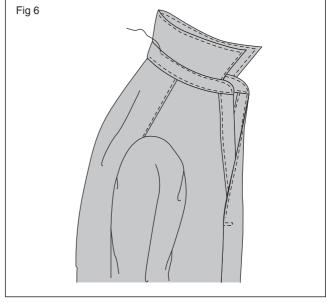
- 1 Make a row of machine stitches on neck seam line leaving 0.75 cm seam allowance. Clip into neck seam allowance at a distance of 2 cm. This will permit the collar to fit smoothly on to the shirt. (Fig 1)
- 2 With right sides together match centre of stand (unfused side) and neckline. Baste the stand to the garment along the neck seam line. Stitch on seam line. Secure stitches at both ends. (Fig 2)
- 3 Press the seam flat and trim the seam allowance. (Clip seam allowance if the fabric is stiff or thick.) (Fig 3)

- 4 Press the seam allowance open, then towards collar stand. (Fig 4)
- 5 Bring the edge of fused collar part down and align it with the neck seam line. Pin and baste. (Fig 5)

Stitch on fused collar stand all around. Start stitching from centre on upper edge. Take care that no folds will come while stitching. Finish and press. (Fig 6)





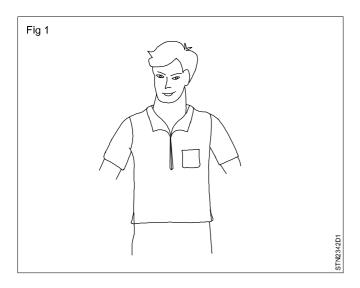


Apparel : Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.44

Construct a gent's shirt - Style II

Objectives: At the end of this exercise you shall be able to:-

- · draft and cut the paper pattern of t-shirt
- prepare the master pattern
- · lay the fabric and cut the t shirt fabric components
- · sew and finish the t-shirt.



Draft and cut the paper patter of T-Shirt

- 1 Lay one brown sheets on the drafting table with lengthwise folded.
- 2 Draft the pattern of t-shirt front part following the instructions for drafting.

Material

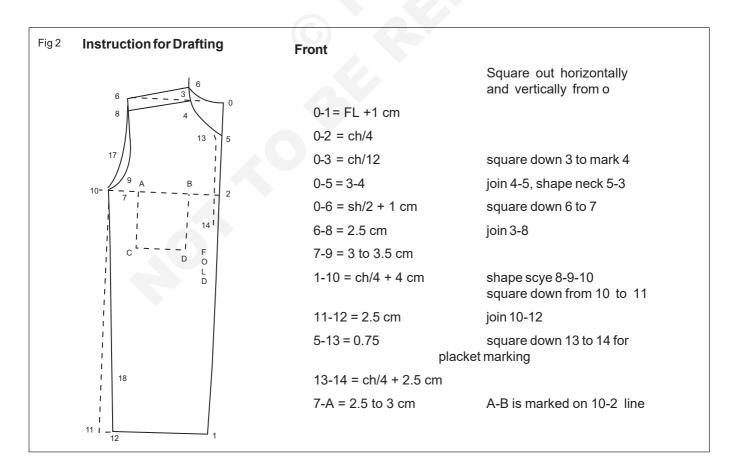
1.40 x 1.27m poly cot

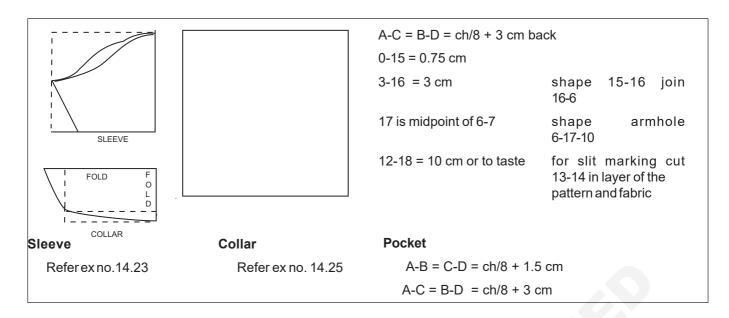
2 brown sheets

Measurements

Full length = 78 cm
Natural waist = 42 cm
Neck = 37 cm
Shoulder = 44 cm
Chest = 90 cm
Sleeve length = 25 cm
Solar width = 4 cm

- 3 Similarly draft the back part on the other brown sheet.
- 4 Draw the sleeve and collar drafting on the balance sheets available.





TASK 1: Draft and cut the paper patter of T-Shirt

- 1 Lay one brown sheets on the drafting table with lengthwise folded.
- 2 Draft the pattern of t- shirt front part following the instructions for drafting.
- 3 Similarly draft the back part on the other brown sheet.
- 4 Draw the sleeve and collar drafting on the balance sheets available.

Pattern cutting

1 Cut the drafted paper pattern of t-shirt along the following cutting lines.

- 2 Leave sufficient space around each drafting and cut.
- 3 the cutting lines of T shirt are:

Front — 14-13-3-8-9-10-18-12-2

Back — 0-15-16-6-8-17-10-18-12-2

Sleeve — refer ex.no.14.23

Collar — refer ex.no.14.25

Pocket — A-B-D-C-A

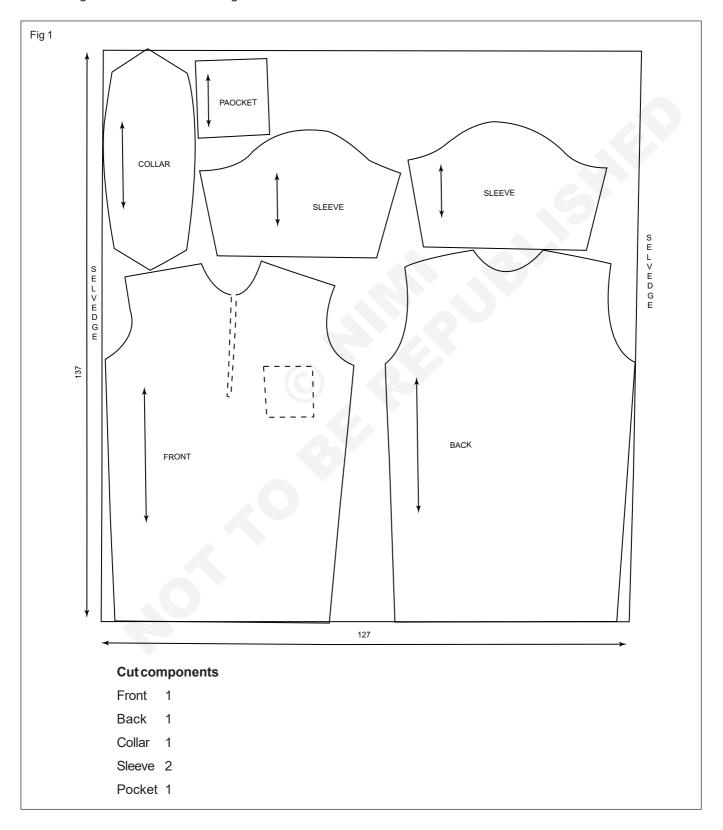
TASK 2: Prepare the master pattern

- 1 Add the below mentioned master pattern allowance to the cut paper pattern of t shirts.
- 2 Cut all the patterns into master patterns with the added allowances for in turns, seams etc.
- 3 Name all these patterns with its description, like size, measure etc. for future reference.

Instructions for master pattern		
Front and back		
Neck, shoulder, armhole	0.75 cm	
Side	2 cm	
Bottom turning	3 cm	
Sleeve		
Тор	0.75 cm	
Underarm side	2 cm	
Bottom	3 cm	
Collar		
Lower edge	1 cm	
Sides, upper edge	0.75 cm	
Pocket		
Pocket mouth	2 cm	
All other sides	0.75 cm	

TASK 3: Lay the fabric and cut the T-Shirt fabric components

- 1 Lay the fabric open on the cutting table with its wrong side facing.
- 2 Spread and arrange the master pattern of t-shirt economically on the fabric.
- 3 Mark the outline of the patterns, mark required number of components of the pattern transfer the pocket & slit marking to the fabric with a tracing wheel.
- 4 Remove the pattern.
- 5 Cut the fabric into t-shirt components on the marking using a sharp pointed scissors.
- 6 Cut notches at sleeve crown, slit open of the front and back part etc to set the positions. (Fig 1)



TASK 4: Sew and finish the T-Shirt

Style Features	Materials and Trimmings	
Open collar	Cut components of t-shirt	
Zipper placket	Matching colour sewing thread	
Patch pocket	Machine needle no.14	
Side slit		

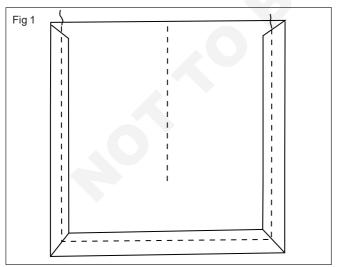
- 1 The cut components of T-shirt are:
 - Front 1
 - Collar 1
 - Back 1
 - Pocket 1
 - Sleeve 2
- 2 Stitch the centre front open with the zipper placket.
- 3 Join front and back parts together with a seam at their shoulders.
- 4 Prepare and attach open collar to the neckline.

- 5 Stitch patch pocket with its mouth finished at the right hand side of the front bodice.
- 6 Finish sleeve bottom with machine stitching giving in turns.
- 7 Attach sleeve to the body part in the shirt sleeve method.
- 8 Stitch under arm seam and side seam till the slit mark.
- 9 Finish slit opening with double folds and stitch bottom with machine stitching.
- 10 Finishing, trim and press.

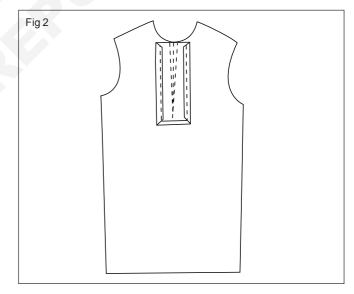
Centered application of zipper placket

Objective: This shall help you to

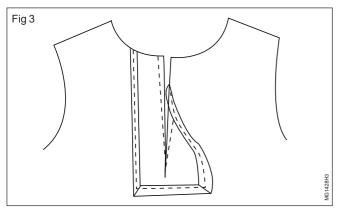
- · stitch the zipper placket at the back open.
- 1 Measure and mark the length of front open the wrong side of the front part.
- 2 Take a facing piece of length equal to back open length and width of about 6 cm. Turn the edges of facing by 0.5 cm and leave the top edge. (Fig 1)
- 3 Place the facing piece on the front part with right sides together. match the centre lines and baste on the line.

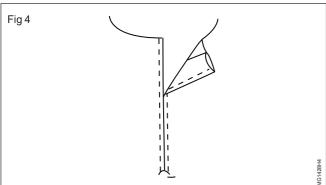


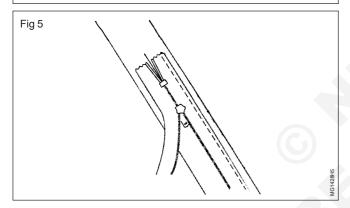
- 4 Mark 5mm on both sides of the centre line on the top edge. Join two marks with bottom end of centre line in V-shape. (Fig 2)
- 5 Slash on the centre line leaving 2 mm at peak point. Turn the facing on the wrong side and press it gently to make out the edge.(Fig 3)



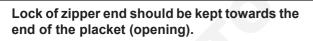
- 6 Stitch top seam from right side on the edges of the placket outlines.(Fig 4)
- 7 Open the zipper and place the right side of zipper on the wrong side of the fabric facing piece. Keep the chain edge of the fabric up the placket opening mark. Baste the zipper tape with one seam allowance. (Fig 5)

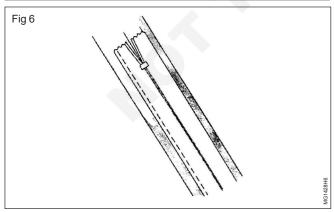




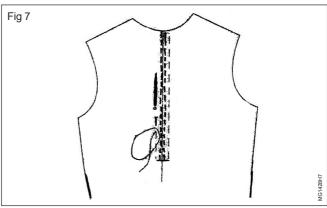


8 Close the zipper. Baste the other side of the zipper tape with other seam allowance. (Fig 6)

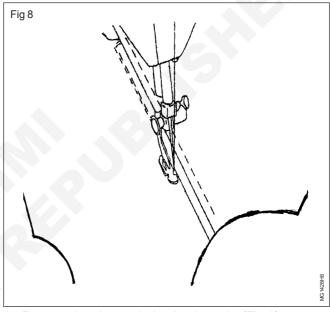




9 Turn the fabric with right side up and spread the fabric as fiat as possible. Now baste from right side through all layers of the fabric, 6mm away from seam line. Start basting from the seam line at the bottom end of the opening. (Fig 7)



10 Start machine stitching from the right side along the basting from the top end of the fabric using a zipper foot. Stop in the end of opening just below the lock of the zipper. Make pivot and cross to other side and stitch up to the end of fabric.(Fig 8)



11 Remove basting and trim the threads. (Fig 9)



Sketch a gent's trousers

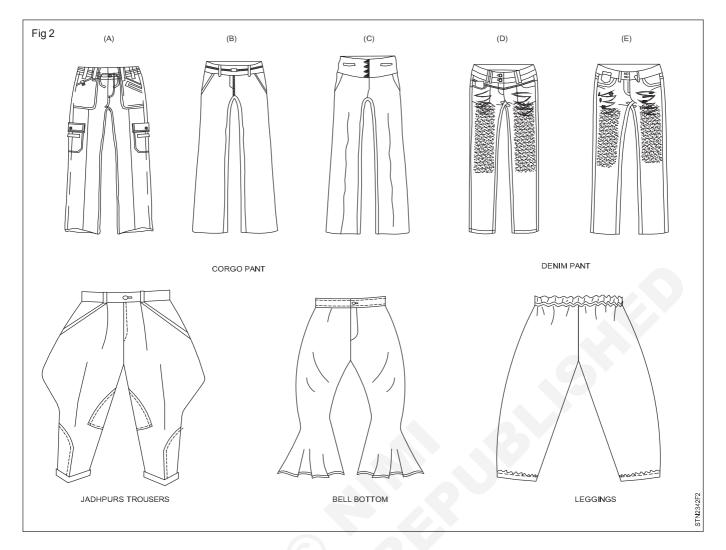
Objective: At the end of this lesson you shall be able to

· sketch different types of pants.

Sketch different types of pants

- 1 Sketch the different types of pants given in the following figures (Fig 1 and 2) using 2H pencil in the cartridge paper.
- 2 Use fine pencil lines for easy corrections.
- 3 Make necessary corrections after completing the sketches.
- 4 Draw the sketches with Black fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

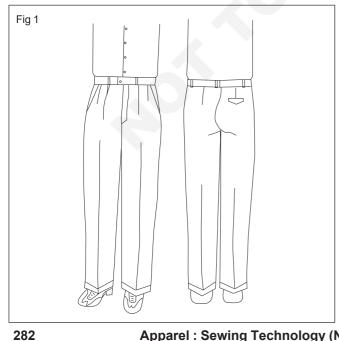




Construct a gent's trousers - Style I

Objectives: At the end of this exercise you shall be able to

- · draft and cut the paper pattern of pleated trousers
- prepare the master pattern
- lay and cut the required fabric components for stitching a pleated trousers
- stitch and finish the gent's pleated trousers.



Material

1.66 x 1.50 m Terycot / denim

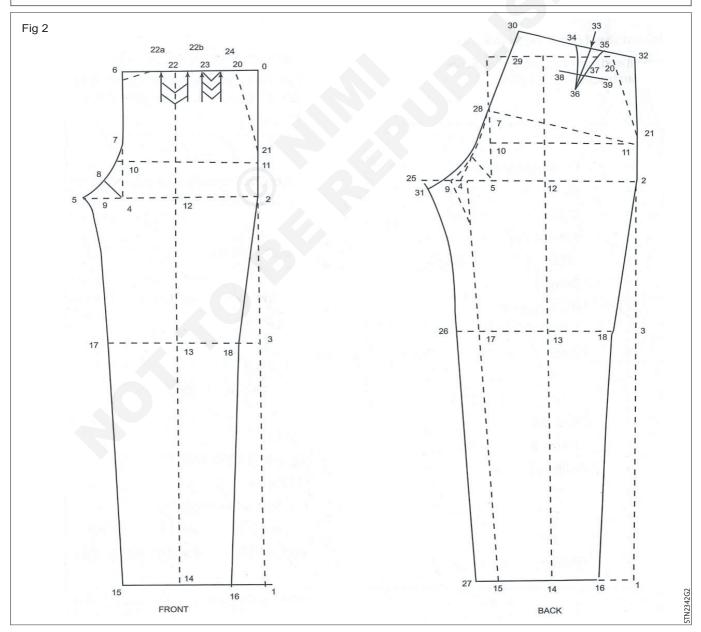
0.80 x 0.90 m poplin

2 Brown sheets

Measurements

Full length= 104 cmInner leg length= 73 cmWaist= 76 cmHip= 92 cmBottom= 43 cmBelt width= 4 cm

Front part		
0-1	= Fl- waist band (4 cm)	Square out horizontally and vertically from 0
1-2	= ILL - 1 cm	Square out from 1
2-3	= ILL/2 - 5 cm	Square out from 2
2-4	= H/4 + 4 cm	Square out from 3
4-5	= H/12 - 1.5 cm	Join
0-6	= Same as 2-4	Extend 4 to 5 with a line square up from 4 and mark 6
4-7	= H/8 + 1.5 cm	Divide angle 6-4-5
4-8	= 4-5/2 + 0.75 cm	-
5-9	= 2 cm	Shape 6-7-8-5
4-10	= H/12	Mark 10 at 6-4 line for body rise
2-11	= 4-10	•
2-12	$= \frac{1}{2}$ of 2-5	Join 10-11
3-13	= 1-14 = 2- 12	Square down 12 to mark 13 and 14
14-15	= bottom / 4	Join 12-12-14
14-16	= 14-15	Join 15 to 9 with a straight line
13-18	= 13-17	Square out 3 13 to mark 17 at 15-9 line
6-19	= 1 cm	Shape 5-17-15 (liner shape) and 2-18-16 (outer shape)
0-20	= H/24 + 1 cm	



Apparel : Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.44

11-21 = 2 cm

22-22a = 22-22b = 2 cm (for pleat)

22b-23 = 3 cm (distance between two pleats)

23-24 = 3cm (for pleat)

Back part

9-25 =5 to 6.5 cm

17-26 = 2.5 cm

15-27 = 2.5 cm

7-28 = 2.5 cm

6-29=2.5 cm

29-30 = 2.5 cm

25-31 = 1 cm

30-32 = W/4 + 3 cm

32-33 = H/12 + 1.5 cm

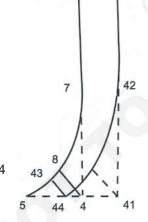
33-34 = 33-35 = 1.25 cm

33-36 = H/8

33-37 = H/12

37-38 = 37-39 = H/16

Fly



40

6-40 = 4-41 = H/24

41-42 = H/6

8-43 = 1 cm

43-44 = 1.75 cm

41-45 = H/24

Joined 20 and 21 for slant pocket

Square up from 12 and mark 22

Copy the front pattern (dotted lines) which will help you to create back pattern as follows

Extend line 9 to 25

Shape 25-26-27

Mark 28 from 7 for seat angle. (it should be increased for an erect figure and reduced for a stooping figure)

Join 4-28 with a straight line and produce it to mark 29

Extend line 29 to mark 30

Shape 30-28-31 for fork as shown

Join 30-32 with a straight line

Set the square on the point 33 along the line and draw square line

Mark dart width on either side of 33

Join 33-36

Draw parallel line with 32 - 30 dart point

Join 38 - 39 (hip pocket)

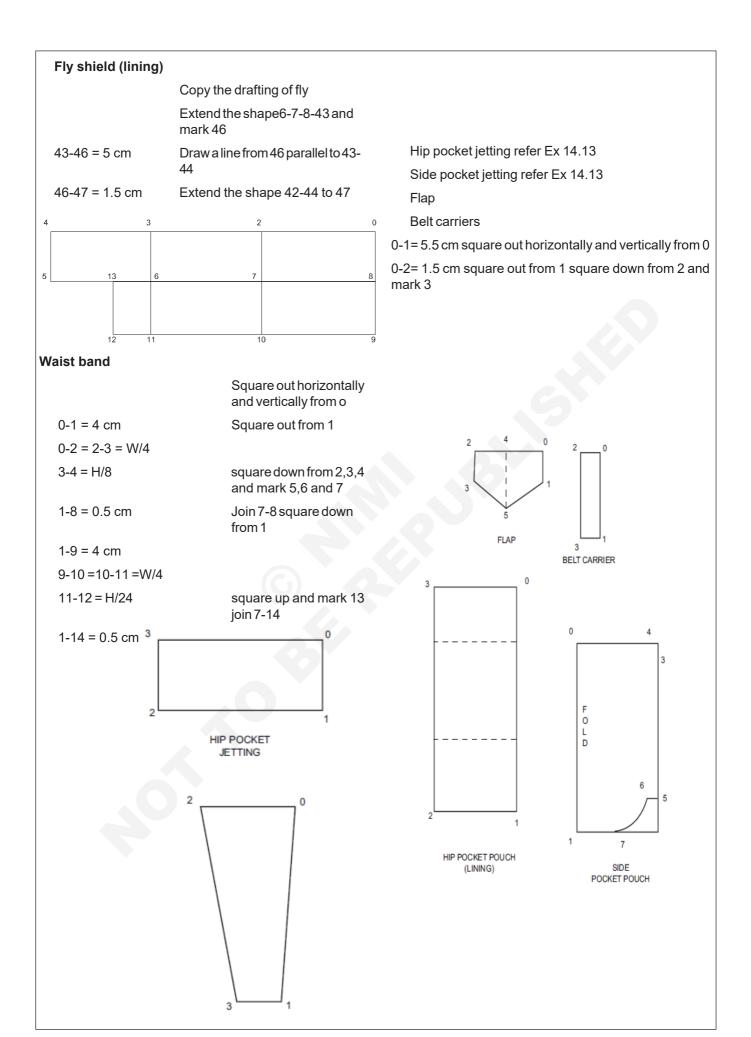
Copy the lines 6-4,4-5 from front part and shape 6-19-7-8-5 as as in front fly line

Join 40-41

Draw parallel line with 4-8 from 43

Divide angle 42-41-4

Shape 44-45-42-40



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.44

Jetting for hip pocket	
	Square out horizontally and vertically from 0.
0 - 1 = 5 cm	
1 - 2 = 30-31 + 2 cm	Square upto 3
Jetting for side pocket	
	Square out vertically and horizontally from 0
0-1=H/6 + 4 cm	Square down from 2 and square out from 1 and mark 3.
Flap	
0 - 1 = 3.5 cm	Square out horizontally and vertically from 0
0 - 2 = H/8	Square down from 2
2 - 3 = 0 - 1	
0 - 4 = 1/2 of 0-2	Square down
4 - 5 = 5 cm	Join 1-5 and 5-3
Hip pocket pouch	
	Square out horizontally and vertically from 0
0 - 1 = H/3 + H/12	
1 - 2 = 30 - 31 + 5 cm	Square up from 2 and mark 3
Side pocket pouch	
	Square out horizontally and vertically from 0
0 - 1 = H/3 + 5 cm	
1 - 2 = H6 + 2.5 cm	Square up and mark point 3
3 - 4 = 2.5 cm	
2 - 5 = H12	Join 4-5, square out from 5
5 - 6 = 1 cm	

Shape 6 - 7

2 - 7 = 1/2 of 2-1

TASK 1: Draft and cutting the paper pattern of gent's pleated trousers

- 1 Lay one brown sheet open on the drafting table.
- 2 Draft the front and back part pattern of pleated trousers following the instructions for drafting.
- 3 Leave enough space around each drafting.
- 4 Draft all the other patterns waistband fly, fly shield, pocket jetting, pocket pouch etc on the other brown sheet.

Pattern cutting

Cut the drafted paper pattern of pleated trousers along the following cutting lines, leaving enough space around preparing the master pattern.

Back —	32-21-11-2-18-16-14-15-27-26-31- 28-30-33-32	
Fly	40-42-45-4-44-43-8-7-6-40	
Waist band —	0-8-7-6-13-5-4-0-14-9-10-11-12- 13-7-14	
Hip pocket jetting	O-1-2-3-0	
Side pocket jetting	O-1-3-2-0	
Flap	0-1-5-3-2-4-0	
Belt carrier	 0-1-3-2	
Hip pocket pouch	 0-1-2-3-0	
Side pocket pouch	 0-4-5-6-7-1	

TASK 2: Prepare master pattern

1 Add the following allowances to the cut paper pattern for seams, hems, in turns, opening etc.

Instructions for master pattern	
Original material	
Front and back	
Bottom turning	7 cm
Side and inside leg seam	1 cm
Waistline	1 cm
Fly line on back	0.75 cm
Top of back seat seam	2.5 cm taper to 1 cm at crotch
Waist band	
All three sides	1 cm
Centre back	2.5 cm

Fly	0.75 cm all around
Jetting	1 cm all around
Flap	0.75 cm all round
Belt carrier	0.50 cm all around
Lining material	
Pocket pouches	1 cm all around
Hip pocket pouch	1 cm all original
Fly	as per original
Fly shield	1.5 cm inner edge
	0.75 cm all other edges

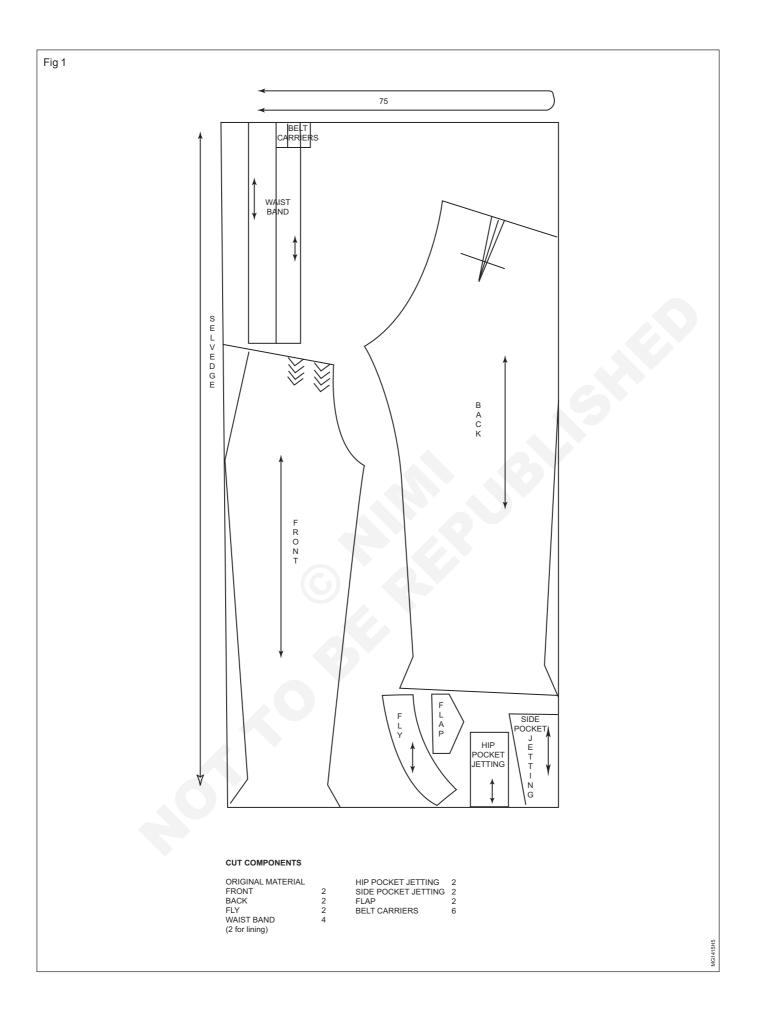
- 2 Cut the excess brown sheet after adding the master pattern allowances to each paper pattern.
- 3 Name the patterns with their measures for future reference.

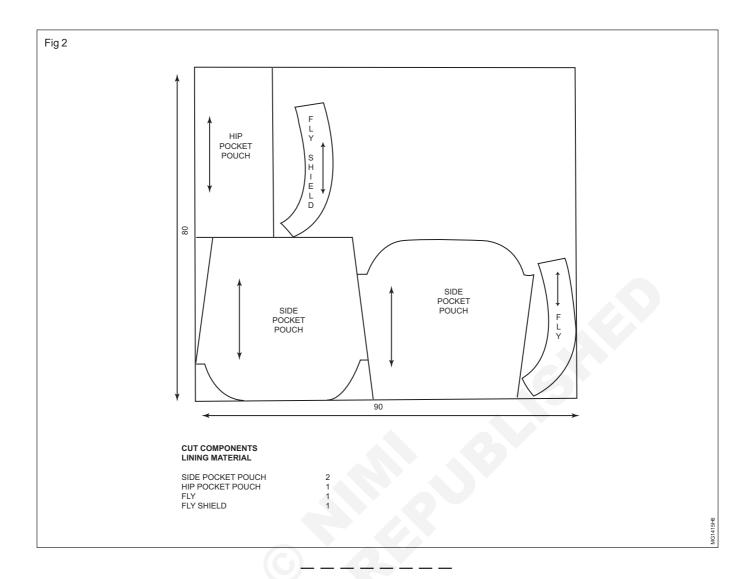
TASK 3: Lay and cut the required fabric components

- 1 Lay out double width fabric open on the cutting table with right side facing.
- 2 Fold the fabric width wise into equal halves, the width to measure 75 cm.
- 3 Spread and arrange the master pattern of pleated trousers as required.
- 4 Check for the grainlines, numbers of components required.
- 5 Mark the outline of the patterns using a marking chalk.

- 6 Similarly lay the lining material open on the cutting
- 7 Arrange and mark the outline of both the pockets pouches fly and fly shield.
- 8 Remove the patterns.
- 9 Cut the marked components using a sharp pointed scissors.
- 10 Cut notches at pocket markings, in turns etc.
- 11 Fold and tie all the pleated trousers components together, to prevent from missing.

Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.44





TASK 4: Construct the gent's pleated trouser

The cut components of pleated trousers are

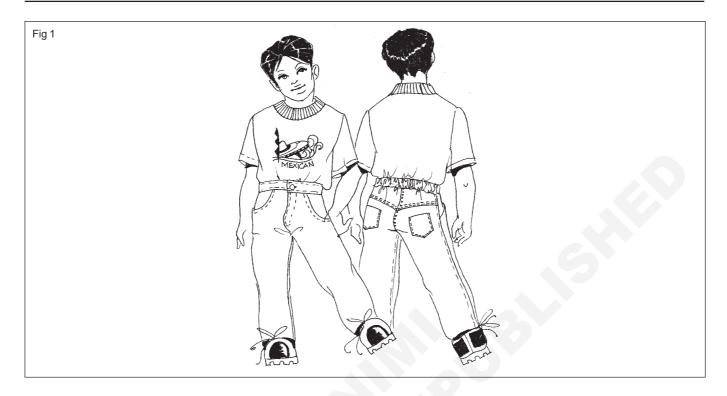
Front	2
Back	2
Fly	2
Waist band	2
W.band for lining (original) 2
Hip pocket jetting	2
Side pocket jetting	2
Flap	2
Belt carriers	6
(Lining material)	
Side pocket pouch	2
Hip pocket pouch	1
Fly	1
Fly shield	1

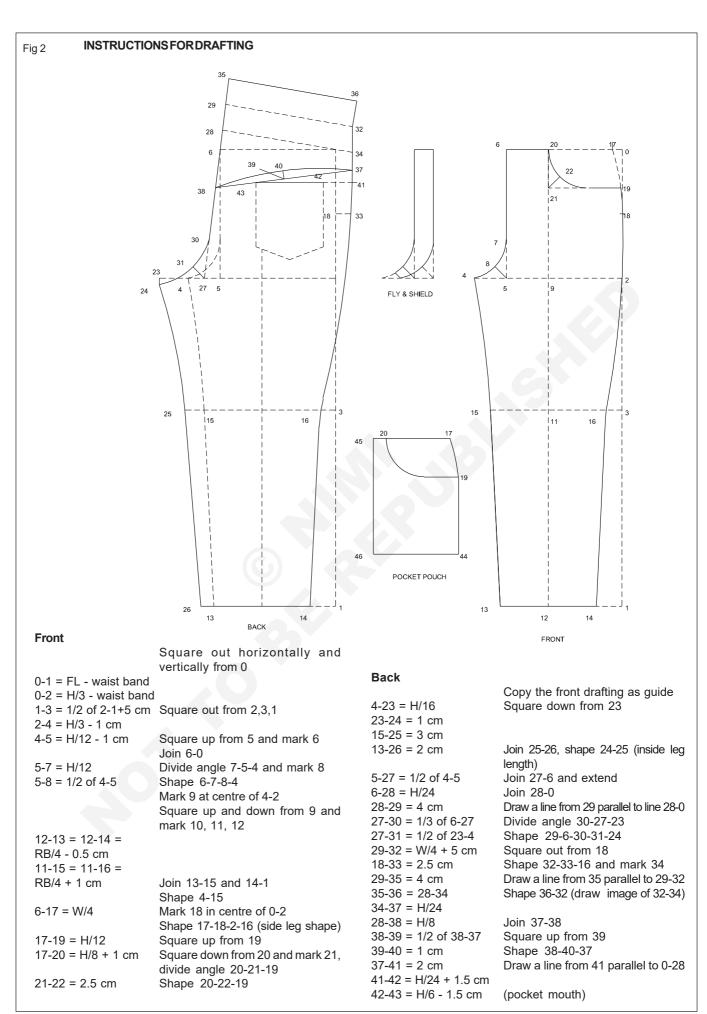
- 1 Prepare the slant pockets on the marks in front sides
- 2 Set the knife pleats in front on marks and baste them fold of pleat should be directed towards the pocket.
- 3 Stitch the darts on marks at the back side. Press and set towards seat seam line.
- 4 Prepare hip pocket with flap on right side of the back.
- 5 Prepare the zip fly
- 6 Join sides of front and back, with
- 7 Prepare the belt and attach on waist line.
- 8 Stitch the inside leg seam joining front and back together.
- 9 Stitch crotch from back to front up to the zip fly forming cross seam at the joint of seam lines.

Gents Trouser - Style II

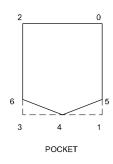
Objectives: At the end of this exercise you shall be able to

- draft and stitch jeans
- prepare front hip pocket
- finish waist line with waist band in front and fold-down casing in back.





Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.8.44



Patch pocket (original material and lining)

Square out horizontally and

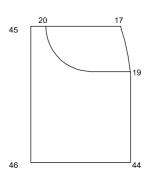
vertically from 0

0-1 = H/6Square out from 1

0-2 = H/6 - 1 cmSquare down from 2 and mark 3

1-4 = 1/2 of 1-3

1-5 = 3-6 = 2 cm Join 4-5 and 4-6



POCKET POUCH

Pocket pouch pieces

Copy the front pocket mouth

marking and continue:

19-44 = H/6Square out from 44

20-45 = 2 cmSquare down from 2 and mark 46

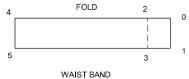
17-44-46-45-20-17 is pocket pouch piece of original material 20-19-44-46-45-20 is **pocket**

pouch of lining cloth

Fly and fly shield (ref.ex.32)

Waist band

0-1 = 4 cm



0-2 = 3 cm2-4 = W/4

Square out horizontally and

vertically from 0

Square out from 1

Square down from 2 and mark 3

Square down from 4 and mark 5



Measurements	Material
Full length = 75 cm Waist = 66 cm Hip = 72 cm Round bottom = 32 cm	0.90 x 1.36 m Drill/Denim cloth 0.25 x 0.45 m Lining 0.80 x 0.75 cm Elastic 1 zip, 18 cm 1 button

INSTRUCTIONS FOR DRAFTING MASTER PATTERN

Front and back : 1 cm all around, except 1.5 cm

seat seam and 3 cm for bottom

turning

Yoke 1 cm all around, except 1.5 cm on

seat seam

Waist band 1 cm all around

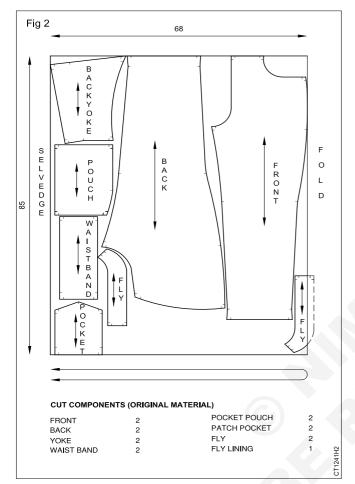
and original)

1 cm all around

Pockets (patch: 1 cm all around, except 2 cm for

pouch lining patch pocket mouth

- 1 Prepare pattern as per instructions (front and back separately).
- 2 Prepare master pattern. (Fig 2)
- 3 Join back yoke to back panel.
- 4 Lay out paper pattern on cloth, mark and cut all components. (Fig 3)



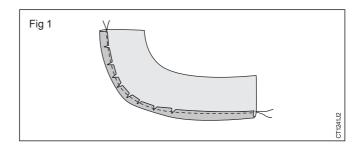
Note: The fly piece extending the fold line in layout is cut from single layer of cloth on unfolded material after all other components have been cut.

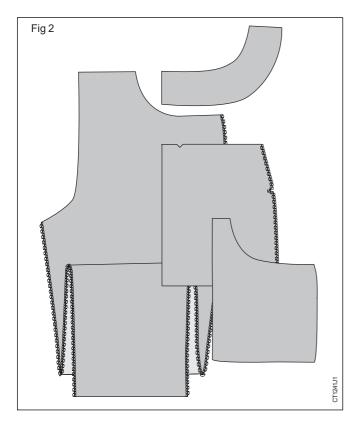
- 5 Transfer marks on both layers of front and back part.
- 6 Mark and cut pocket pouch lining pieces from Poplin as per instruction for drafting.
- 7 Prepare front hip pocket.
- 8 Prepare zippered fly using fly shields of original material.
- 9 Join back yoke to back panel.
- 10 Turn the seam allowance of lower edge of yoke on the wrong side of fabric and press. Set the folded edge over the seam allowance of upper edge of back part matching side and centre back line, baste and stitch 2 mm away from folded edge. Make another row of stitches 0.75 cm away from the 1st row. Remove basting.
- 11 Prepare back patch pockets and fix on the marked position.
- 12 Join seat seam leaving 4 cm from crotch/fork end. Make double row of stitches on the right side placing seam allowance on left back part.
- 13 Prepare waist band with fusing material.
- 14 Attach waist band from wrong side and make side seam. Insert elastic in fold-down casing.
- 15 Join inside leg of front and back.
- 16 Stitch the left out portion of front and back crotch and make double stitches in continuation of seat seam up to fly end. Tack firmly on fly end and side end of pocket mouth.
- 17 **Turn and finish bottom hem:** Turn the bottom edge 0.75 cm on the wrong side of fabric. Then turn once again the hem portion on the wrong side of fabric, baste and finish the hem by two rows of stitches, keeping 0.75 cm distance between two rows.
- 18 Make one button hole on waist band and tack button.
- 19 Neaten the thread ends and press the jeans.

Hip pocket

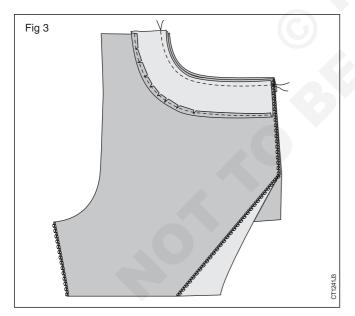
Objective: This shall help you to
• prepare front hip pocket on jeans.

- 1 Cut2 jetting pieces 4 cm wide (including seam allowance
- from the balance material as per the shape of pocket mouth)
- 2 Overlock the defined edges of pieces. (Fig 1)
- 3 Take overlocked front part of jeans, both the pocket pouch pieces (one from lining material and other from original material) and one jetting piece.
- 4 Mark a line 1 cm away from lower round edge of jetting piece. Cut notches in the curved portion and turn it on wrong side by 1 cm. Baste and press gently and stitch 0.7 cm away from folded edge. (Fig 2)

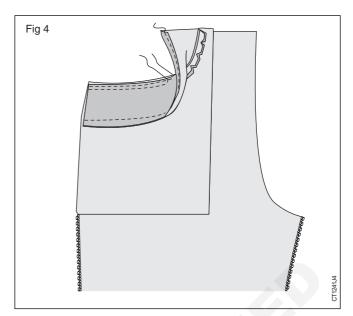


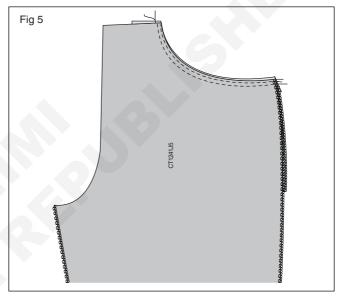


5 Place the pocket pouch lining piece on the wrong side of front part along the pocket mouth, right side of lining with wrong side of front together. Then place the jetting piece over front piece matching pocket mouth and right sides. Baste along the pocket mouth and stitch. Remove basting. (Fig 3)

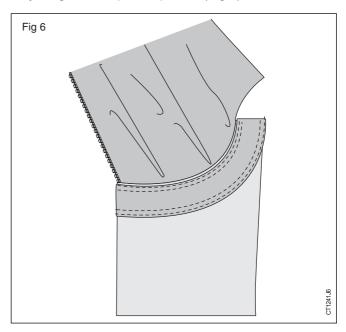


- 6 Cut notches on the seam allowance and turn the jetting piece on the wrong side over the pocket pouch piece. Set the seam pushing the edge inside by 2 mm and press. (Fig 4)
- 7 Stitch on the pocket mouth from right side, 2 mm away from the edge. Make a parallel seam maintaining distance (gauge) of 0.75 cm. (Fig 5)

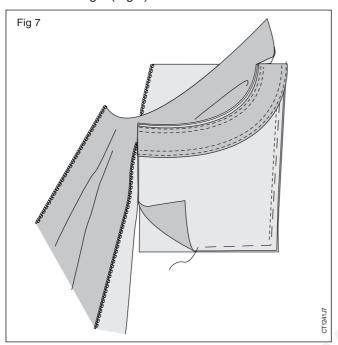




8 Spread the pocket pouch away from the body part, lay flat the jetting piece over it and stitch the lower edge of jetting with the pocket pouch. (Fig 6)

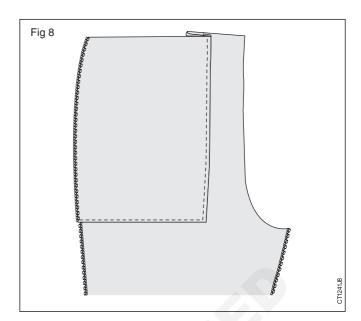


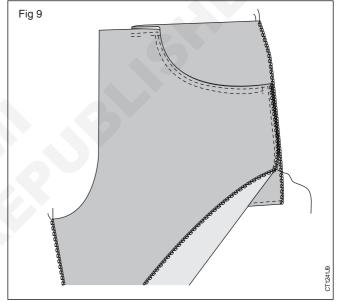
9 Take the pocket pouch of original material and place it under the lining pocket pouch, right side of lining material with the wrong side of original material together. Match the longer sides. Baste on the longer side and bottom of the pieces. Stitch at a distance of 0.75 cm from the edge. (Fig 7)



- 10 Remove basting and turn the pocket pouch bringing right side out. Set the seam and press. Stitch along the edge leaving 0.75 cm. (Fig 8)
- 11 Lay the front of jeans with right side up and place the pocket pouch under it matching sides and top. Baste and stitch with machine on waist, line and side at a distance of 0.5 cm from the edge. (Fig 9)

Note: Take care that the pocket mouth opening is kept in right place on marks.

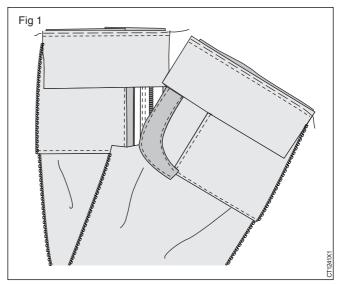


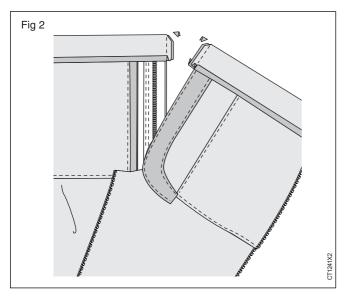


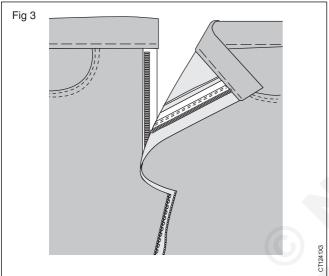
Waist band finish

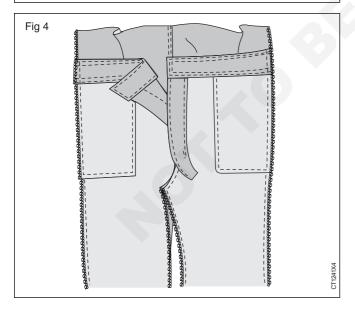
Objective: This shall help you to

- prepare waist band and stitch side seam of jeans.
- 1 Place the waist band on the waist line of front part right side of waist band and wrong side of front jeans together. Seam allowance of waist band will extend by 1 cm on both sides at centre front. Baste and stitch on the seam allowance mark. Remove basting. (Fig 1)
- 2 Fold the waist band on its centre mark, right sides together. Stitch on the seam allowance of centre front. Trim off the corner to reduce bulk. (Fig 2)
- 3 Turn the waist band with right side out and pull out the corner neatly. (Fig 3)
- 4 Match and stitch side seams of front and back component right sides together. Stitch also inside leg length and crotch line. Overlock all seam allowances. (Fig 4)

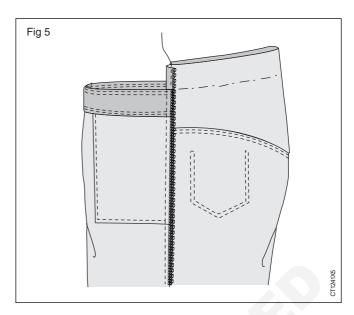




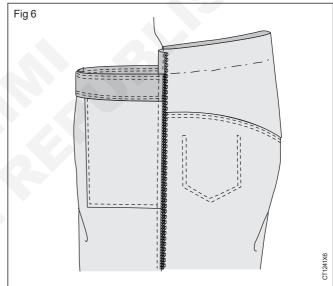




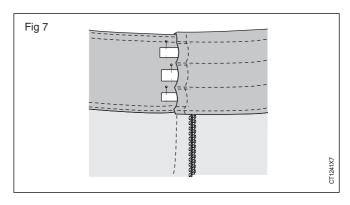
5 Press side seam allowance towards back component, and stitch it on the edge from top of back up to waist band of front. (Fig 5)



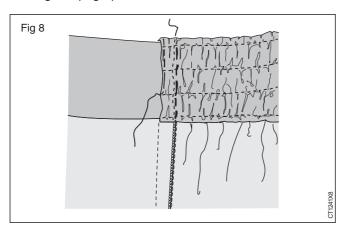
6 Prepare fold down casing of back. Set three rows of stitches: Keep 0.5 cm from top and divide the remaining portion into three equal parts for two more rows of stitches. (Fig 6)



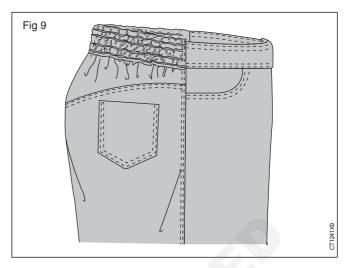
7 Insert elastic (formula for calculation: ref.Ex.31) and fix with pins. (Fig 7)



8 Fix elastic by basting at a distance of 1 cm. Remove pins and trim edges of elastic. Baste again on the edges. (Fig 8)



9 Turn the garment with right side out and stitch a parallel row of stitches on side seam. (Fig 9)



Apparel Exercise 1.8.45

Sewing Technology - Production Techniques

Check the fitting of the garment

Objective: At the end of this exercise you shall be able to

· check the fitting of the gents garment.

PROCEDURE

Check the fitting of the Gents Garments (Fig 1)

- 1 Put each garment on the Dummy and performs a general check.
- 2 The garment should properly hold and look nice as per the reference sample.
- 3 Check the fitted garment should be fit smoothly over undergarments.
- 4 Check the fitted garment should have the appropriate amount of easy for body movement.
- 5 Check the proper waist line length and fit.
- 6 Check the darts and design details that are properly placed.
- 7 Have correct and properly placed shoulder length unless the design dictates otherwise.
- 8 Have neckline and arm holes that fit the body without gapping or straining.
- 9 Have sleeve fullness and length appropriate for the style and individual.
- 10 Hang straight and parallel.
- 11 Check whether well-constructed arm holes and necklines should fit smoothly. Neither the neckline seam nor the facing should show from the outside of the finished garment.
- 12 Check the arm holes and necklines should be flat, smooth and free from bulk.
- 13 Check whether arm holes and necklines should be securely held in place by under stitching and tacking at seams or by top stitching.
- 14 Check the shirt sleeve that should be correctly positioned on the body.
- 15 Check the casing that should be flat, uniform and of even width.

- 16 Check the casing row of stitching at the top (head) and lower edge of the casing.
- 17 Check the collar should have smooth curves or sharp points (the same shape and length) depending on the type and style of collar.
- 18 Check whether collar should be interfaced properly to maintain shape.
- 19 Check the hem should be free from bulk in seams that fall within the hem area.
- 20 Check the buttons should be fit the purpose to which they are intended-functional or decorative.
- 21 Check the buttons securely fastened with double thread and neat stitches.
- 22 Check whether the pressed garment should have no wrinkles or crinkled areas.
- 23 Note the changes in a paper if necessary.



Sewing Technology - Quality Control

Practice on methods of removing different kinds of stains in fabrics

Objectives: At the end of this exercise you shall be able to

- · remove pencil mark stain
- · remove chewing gum stain
- · remove tea/coffee stain
- · remove haldi stain
- · remove egg/blood strain.

Requirements

Tools/Equipments/Instruments

· Checking table

Materials

- Garment to be checked
- · Pick glass
- Colour or arrow marked assorted stickers for identification
- Measuring tape

PROCEDURE

TASK 1: Remove pencil mark stain

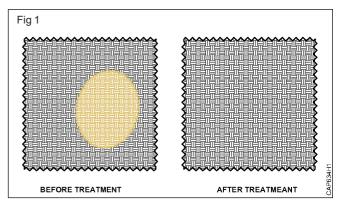
- 1 Take the shirt and place it on the table, start checking the stain which appears in the shirt.
- 2 Place the small piece of fabric under the stain area use the gum eraser to lift the shirt and starts rubbing the stained area.
- 3 After rubbing stained area apply the soap water by using the gun.
- 4 Take and hold the shirt away from the table as well as close to the gun.
- 5 After removing entire stain from shirt apply the water, wash the entire area.
- 6 Allow the shirt for drying for 10 minutes, then remove the shirt for the stained area.
- 7 Repeat the same procedure for the other sample.

Using a stain removal gun practices more and apply to affected area. (Fig 1)



TASK 2: Remove chewing gum stain (Fig 1)

- 1 Place the cloth in a plastic bag with the gum stain facing the outside.
- 2 Place the ice cubes on the gum stain area. This process allow gum to harden.
- 3 Remove the ice cubes from the strained area and use the Tweezer to pick up the harden gum.
- 4 After removing the gum from the cloth use the liquid soap water by using gum.
- 5 Rub the cloth by using cotton until the entire gum removed from the cloth.

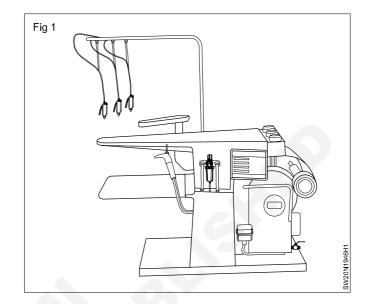


- 6 Use the hot water to stained area more than 3 times.
- 7 Apply the soap water to affected area.
- 8 Finally use the water to removing the soap from stained area.
- 9 Allow the cloth for drying 15 to 20 minutes.
- 10 Repeat the same producer for the other sample during the practical sessions.

TASK 3: Remove tea coffee stain

- 1 Place stained components (Tea, coffee) on the table.
- 2 Cover the stain area with borax. (Fig 1)
- 3 Sponge the cloth with cover with borax
- 4 After sponge use the stain removing machine gun and apply the hot water
- 5 Pouring the hot water on the stained area, pouring the water should be high penetration
- 6 Remove the borax and use the liquid soap water by using the gum.
- 7 Finally use the water by spraying on the stained area.
- 8 Using the dry on stained removed place
- 9 Allow for drying 10 to 15 minute.

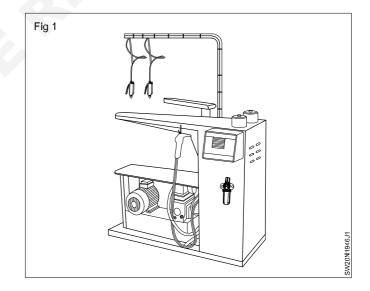
Repeat the same procedure on the silk and polyester fabric.



TASK 4: Remove haldi stain

- 1 Place the oil (or) grease stained components on the stain removing machine table. (Fig 1)
- 2 Apply the grease solvents liquid by using stain removing machine.
- 3 After applying the stain removal solvent.
- 4 Allow the solvents to stays in the stained area for 1 minute.
- 5 After 1 minute using the water on the grease solvent by using the gun.
- 6 After removing entire oil stain from the cloth
- 7 Use the soap water by using gun to give high penetration.
- 8 Finally apply the water 2 (or) 3 time with gun
- 9 Allow the cloth to dry 15 to 20 minute.

Repeat same procedure on cotton and linen fabric.

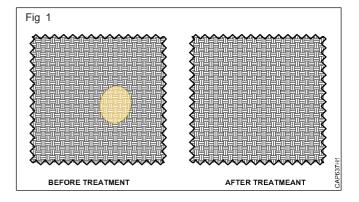


Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.9.46

TASK 5: Remove egg/blood stain

- 1 Protein stain cloth place it on the table.
- 2 Use the hypochlorite Bleach liquid on the (Blood) area.
- 3 Applying stain removal solvent have within the affected area.
- 4 After apply the stain removal solvent allow for the stays in the cloth 2 minute.
- 5 Use the cold water and remove the hypochlorite solvent from the cloth.
- 6 Apply the cold water 3 to 4 time until the solvent completely removed from the stained area.

Repeat the same procedure on the cotton fabric practice for 2 to 3 times.



Apparel: Sewing Technology (NSQF - Revised 2022) - Exercise 1.9.46

Apparel

Exercise 1.9.47

Sewing Technology - Quality Control

Checking of garments

Objective: At the end of this exercise you shall be able to

• check the quality of garment.

PROCEDURE

TASK 1: Check the quality of a garment

- 1 Place the garment on the checking table.
- 2 Check the top, bottom, front and back portions of the garment. Ensure that there are no raw edges, broken, cut, skip and open seams. Whenever finding the defect, affix stickers for easy identification.
- 3 Check the stitch type, stitch quality, SPI (stitches per inch) etc. with the help of pick glass and measuring tape.
- 4 Check the fabric quality and ensure that the garment is free from fabric defects. Check the fabric grain.
- 5 Make sure that the garment is completely balanced shape and appearance in all the aspects.
- 6 Check whether the garment is completely balanced shape and appearance in all the aspects.
- 7 Check the quality of the fasteners, their placement and functioning.
- 8 If the garment is having zips, then ensure smooth functioning of zipper. Check the placement of the zipper. Check whether the zipper is completely covered by the top fly (If available) Check for even less in seams.

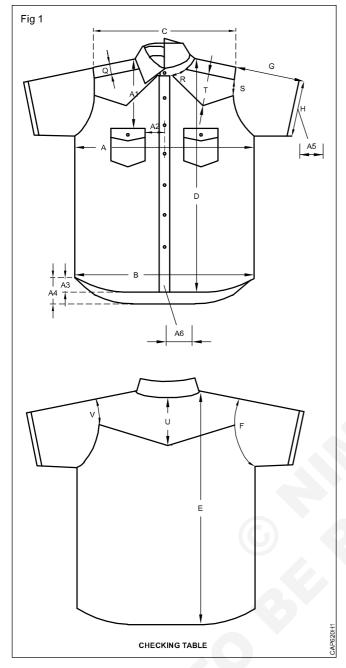
- 9 Ensure correct placement of pleats, darts, tacks and pockets and their finishing.
- 10 Ensure the sewing quality of joints and junctions of the garment. Check the quality of reinforcement stitches. (If available)
- 11 Check the loops, flaps, labels, embroidery designs, and other fancy decorative materials, their placement and quality. (If available)
- 12 Make sure that there are no uneven front and back, material defects, stains, oil, soil, washing defects or shaded parts.
- 13 Reverse the garment to the wrong side and start checking.
- 14 Check the pressing, folding and packing quality.

Get the work checked by your instructor.

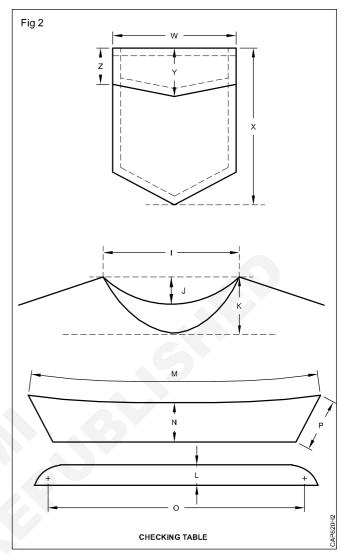
TASK 2: Check the measurement of a garment

- 1 Place the garment on the table.
- 2 Check the measurement of the garment given in the spec. sheet with the help of the measurement tape.
- A Measure: Chest round from Armhole pitch to another armhole pitch.
- B Measure: Bottom round from end of the Bottom line to opposite side end of the Bottom line.
- C Measure: Shoulder length from cap of the sleeve to another cap of the sleeve.
- D & E Measure: High point shoulder from the Hps to till the Bottom line. (Fig 1)
- F Measure: Armhole round Measure the armhole curve along with the armhole shape
- G Measure : Sleeve length from cap of the sleeve to Bottom line.
- H Measure: Sleeve opening from the Bottom of sleeve round to end of the side seam.

- I Measure : Neck width from Hps to another Hps straight across the line
- J Measure : Back Neck drop from centre of Back to till seam end.
- K Measure: The Front neck drop from Hps to till the front Neck line.
- L Measure: Band width from the centre of the Neck band to seam line.
- M Measure: Collar outer line from outside collar point tip to opposite collar point tip.
- N Measure: Collar height from centre of collar top to till the seam line.
- O Measure: Neck round B to BH from half of the button to half of the button hole.
- P Measure: Collar point from the tiled area of the collar.
- Q Measure : Front forward from Hps to shoulder seam line.



- R Measure: Yoke length front centre front neck to yoke length.
- S Measure: Yoke length from yoke side to yoke length.
- T Measure: Yoke length from centre of the yoke to yoke seam line
- U Measure: Back yoke length from the centre of neck line to end of the yoke seam. (Fig 2)
- V Measure : Back yoke side length. Measure from the top arm hole to yoke side length.



- X Measure : Pocket length from the top of pocket to till Bottom line.
 - Y&Z: Measure the pocket mouth from the top of the pocket till seam of the pocket mouth.
- A, Measure: Pocket location from the Hps to pocket line.
- A₂ Measure : Pocket location from the centre front to pocket.
- A₃ Measure : Bottom hem from the Bottom line 3½" upward.
- A₄ Measure: Back tail from centre Back Bottom line 5½" upward measurements.
- ${\rm A_5}$ Measure : Sleeve hemming from seam 1½" fold to till the seam line.
- ${\rm A_6}\,$ Measure : Placket width from the centre front seam to seam.

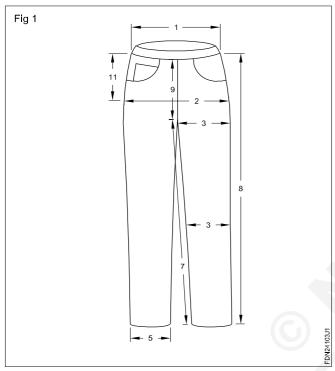
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TASK 3: Measure garments based on the given specification

1 Measure the waist width 1 from the side front to side front.

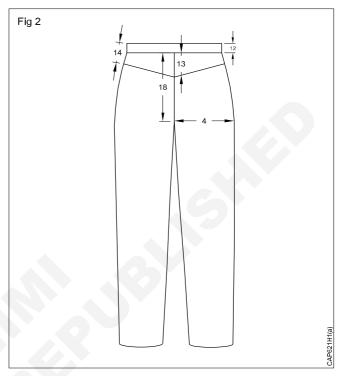
There should not be any wrinkle presents in the garments.

- 2 Measuring the seat round 2 measurements from 8" down from the waist line measure straight across the line
- 3 Measure the front crotch line 3 from the crotch pitch to side seam from straight across the line. (Fig 1)



- 4 Measure the back crotch measurements 4 from back crotch line to back side seam.
- 5 Measuring the knee line measurements 5 from the mid of the leg length straight across the line.
- 6 Measure the bottom round 6 from front bottom side seam line straight across the side seam line.
- 7 Measure the in seam measurement 7 from the crotch to Bottom end measurements.
- 8 Measure the out seam 8 measurement from the waist band (top of the waist band) to end of the trouser.
- 9 Measure front rise measurements from 9 centre front line to crotch pitch point

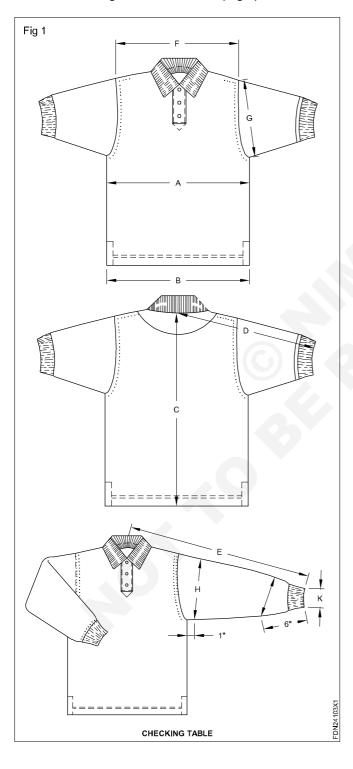
- 10 Measure the back rise 10 measurement from centre back line to back crotch pitch point.
- 11 Measure the seat location 11 from the top of waist band 8" down from waist to seat line.
- 12 Measure the waist belt width 12 from the side seam top of waist belt to end of waist belt. (Fig 2)



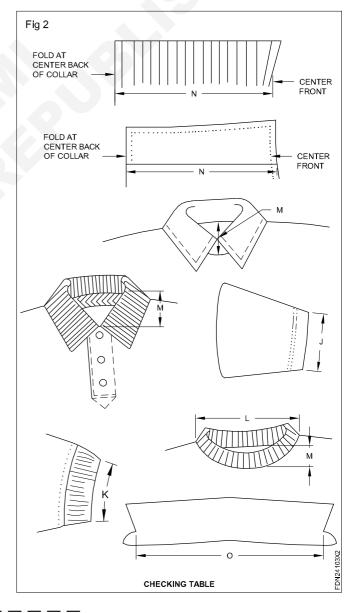
- 13 Measure the yoke length 13 from top of waist band A" down from waist line.
- 14 Measure the yoke side seam measurements 14 from side top of waist 2" down from waist line.
- 15 Measure the coin pocket 15 from top of waist to 1½" waist line to pocket.
- 16 Measure the coin pocket side measurements 16 from side seam front to win 1" pocket.
- 17 Measure the front side pocket 17 from side seam $2\frac{1}{2}$ " to side pocket.
- 18 Measure the front pocket length 18 from the top of waist line 3" down top of waist line to pocket. (Fig 1b)

TASK 4: Check measurement of T-shirt

- A Measure the chest 1" below armhole straight across.
- B Measure the bottom round straight across the bottom hem.
- C Measure centre back length is measured from centre Back neck seam straight down to Bottom edge hem.
- D Measure D and E centre back sleeve length measurement from straight from centre back of garment at neck to edge of sleeve curve. (Fig 1)

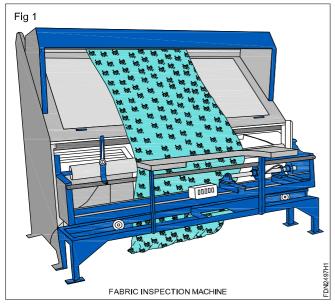


- E Measure half armhole F from armhole seam to armhole seam along shoulder.
- F Measure half armhole G measuring straight from armhole shoulder.
- G Measure sleeve width. This is measured 1" from Armhole along underarm seam and perpendicular to sleeve grain line.
- H Measure sleeve opening is for open sleeves. Measure straight from edge to edge along the sleeve hem.
- I Measure the cuff opening cuffed sleeve.
- J Measure neck width from Neck seam to neck seam.
- K Measure neck drop from centre back neck seam to centre front neck seam.
- L Measure collar opening from seam fold of collar at centre back to centre front. (Fig 2)
- M For self collar measured from centre front to centre front along the collar stand.



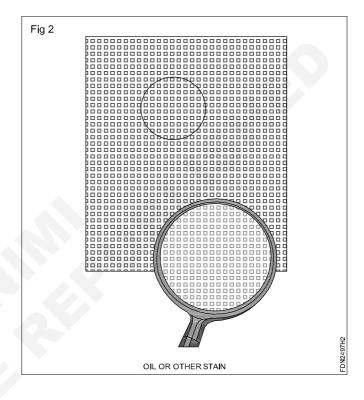
TASK 5: Identify stains on clothing

- 1 Check the fabric having the length 140 yard's and width of 48 inches.
- 2 Start checking the fabric with the help of fabric inspection machine. (Fig 1)



- 3 The fabric surface having the oil and soiled ends stop the machine
- 4 Put the fabric defect sticker on the defected area.
- 5 Put the fabric clips on the affected area.
- 6 Before removing stain sticker are removed from the stained area.
- 7 Hold the fabric tightly using the spotting gun.
- 8 To remove the stain spray the stain removal solvent around the stained area.

- 9 Spray solvent on the fabric evenly
 - Based on the fabric structure, dyes the pressure of gun, and solvent can be adjusted.
- 10 Spray the solvent unless the stain is completely removed from the fabric.
- 11 Allow the fabric to dry
- 12 Then remove the clips from fabric
- 13 The stain is prominent it can be considered as major defects in the fabric. (Fig 2)



TASK 6: Stitching

Stitches on the garment

- 1 Place the garment on the table.
- 2 Lift the shirt with the left hand and turn it inside out.
- 3 Sew lefty and right side.
- 4 Check whether the stitches are colar and shoulder.
- 5 Check whether the stitches are cuff, placket, bottom.

- 6 Check the stitches are yoke and sleeve.
- 7 Turn the right side of the shirt and check the button, button hole and pocket.
- 8 Finally check the seams of the shirt.
- 9 Check bottom hem is correct.
- 10 The method for all garments.

TASK 7: Defects

Clothes defects and

- 1 Yarn defects
- 2 Wearing defetcs
- 3 Pilling and raising defetcs
- 4 Processing defetcs

- 5 Fabrication defetcs
- 6 Make up defetcs

Yarn defects

1 Slub

Slub is a bunch of fibres having less twist/no twist and having larger diameter compared to normal spun yarns.

The slub will give undesirable appearance in the fabric (other than fancy slubby yarn fabrics wherein slub is novelty)

Causes

- 1 Improper carding/combing.
- 2 Improper piecing in drawing and roving.
- 3 Improper cleaning of the cans holding the silver resulting in carrying of the soft waste.
- 4 Improper cleaning schedule of top rollers and clearers in drafting, roving and ring frame.
- 5 Broken tooth in the chain of gear system. Failure of pneumatic suction system.
- 6 Frames not properly cleaned after floor sweeping resulting in flying lints.
- 7 Careless piecing of the ends-down at the ring frame.

2 Slubby weft

Occurrence of slubs at frequent intervals in weft yarn.

Causes:

1 Same as that of slubs.

3 Coloured flecks

1 Presence of coloured foreign matter in the yarn.

Causes

Contamination of yarn during ginning stage due to leaves, seed coat, immature fibre, yellow fibre, tie yarn etc. which gets embedded into the fabric at the time of the weaving.

4 Knots

Piecing of broken threads with tail end or improper knotting.

Causes

When the thread breaks during the process of winding, warping, sizing and weaving if the knotting machine is not used it results in long tail end or thick knot.

Weaving defects

1 Missing ends

The fabric is characterised by a gap parallel to warp.

The number of ends missing may be one or more.

Causes

- 1 Loom not equipped with warp stop motion.
- 2 Drop wired dirty. Accumulation of lint may prevent their dropping.
- 3 In electric warp stop motion, the electro bars are dirty or corroded.
- 4 Bent or broken drop wires.
- 5 Even when the loom is equipped with warp stop motion the sized beam is such that it cannot be woven with warp stop motion on. This is in case of *gsoft beam*h and *gdamp beam*h or wet beam.

- 6 Excessive warp breaks.
- 7 The weaver is careless is not tying the end in time.
- 8 The basic yarn is of poor strength for the quality of fabric woven.

3 Float

Improper interlacement of warp and weft threads in the fabric over a certain area.

Causes

- 1 Healds touching each other causing some ends to remain up.
- 2 Shed not divided properly resulting the shuttle to leave some ends up.
- 3 Broken healds.
- 4 Tight ends in weaver fs beam cause a few ends to remain up than normal warp.
- 5 Heald strap slack.
- 6 Heald hanging, a cotton fluff between warp layers.
- 7 Broken end entangled with other ends.
- 8 Broken heald eyes.
- 9 Improper sizing the ends sticking.
- 10 Crossed-ends from sizing or in loom shed.
- 2 Improper cleaning of shuttle box.

17 Selvedge defects

The different defects appearing at the selvedge. In-house training on visual quality inspection.

Causes

- 1 Difference in picking force which causes pulled-in/wavy selvedge.
- 2 Improper drawing and tension of the selvedge ends.
- 3 Temple roller not functioning properly. Incorrect balance of cloth structure between the body and selvedge yarn.

20 Double ends (Multiple ends)

Two or more ends unintentionally weaving as one. This defect is characterized by a thick bar running parallel to the warp.

Causes

- 1 Mixing up of threads during process of spinning/winding/warping/sizing.
- Wrong drawing, taking more ends in heald eye or reed dent.

Corrective measures in garmenting

Name of defect	Root cause	Corrective action plan	Preventive action plan
Broken stitch	Due to trimming problem	Operator should careful about trimming	We train up our operator about proper trimming
	Due to thread stability problem	We have to carefully check thread stability	Alert to be check thread stability
Skip stitch	Needle problem	Change needle randomly after 2 Hrs	Train up the operator
	Due to improper machine adjust problem	Mechanic properly setup to avoid skip stitch	We aware our operator about how to avoid skip stitch
Uneven/wavy stitch	Operator careless sewing	Operator should carefull about their sewing operation	We should train up our operator about proper sewing process
Cracked stitches	Improper machine adjustment	Stop the machine & ensure proper machine adjustment	Mechanics must check the machine condition before starting sewing
	Due to less thread stability	Operator have to carefully check thread stability after sewing by stressing seam line	We should train up our operator how to check seam elasticity
Open seam	Operator handling problem	Operator shall be work carefully	We are training our operator about how to work in a proper way
	Operator didn't follow M/C guide in properly	They will be follow the M/C guide properly and they ensure proper seam line	We are training our operator about how to proper use of machine guide