


**DIPLOMA IN APPAREL DESIGN AND FABRICATION TECHNOLOGY  
FIRST SEMESTER**

	Course Title: <b>FUNDAMENTALS OF SEWING TECHNIQUES</b>		
	Credits (L:T:P) : <b>4:0:0</b>	Total Contact Hours: <b>52</b>	Course Code: <b>15FT12T</b>
	Type of Course: <b>Lectures, Self Study &amp; Quiz</b>	Credit : <b>04</b> <b>SEE- 100 Marks</b> <b>CIE- 25 Marks</b>	Core/ Elective: <b>Core</b>

**Prerequisites:** Knowledge of basic Apparel Construction

**COURSE OBJECTIVES**

1. To know the parts and functions of the sewing machine.
2. To develop the knowledge of sewing techniques
3. To Evaluate use of different sewing techniques.
4. To evaluate and analyze the types of seams and stitches in dress making.
5. To gain knowledge of textures for design development.
6. To know various types of fabrics.

**At the end of the course the students should be able to:**

Course Outcomes		CL	Linked PO	Teaching hrs
CO1	Student acquires ability to use different sewing machines	U/A	1,2,5,9	12
CO2	Student gains ability to analyze and apply different sewing techniques	U/R/A	1,2,4,8	9
CO3	Acquire the knowledge of different types of fabrics	U/R/A	1,4,5,9,10	10
CO4	Ability to know seams and stitches in dress making	U/R/A	1,4,5,9,10	8
CO5	To analyze the texture for particular design	U/R/A	3,6,7,10	8
CO6	Acquire the knowledge of various trimmings.	U/R/A	1,8,10	5

**COURSE-PO ATTAINMENT MATRIX**

Course	Programme Outcomes									
	1	2	3	4	5	6	7	8	9	10
PATTERN ILLUSTRATION-1	3	2	1	3	3	2	1	2	3	3

Level 3- Highly Addressed, Level 2-Moderately Addressed, Level 1-Low Addressed.

Method is to relate the level of PO with the number of hours devoted to the COs which address the given PO.

If >40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 3

If 25 to 40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 2

If 5 to 25% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 1

If < 5% of classroom sessions addressing a particular PO, it is considered that PO is considered not-addressed.

### **COURSE CONTENT AND BLUE PRINT OF MARKS FOR SEE**

Unit No	Unit Name	Hour	Questions to be set for (5marks) PART - A			Questions to be set for (10marks) PART - B			Marks weightage (%)
			R	U	A	R	U	A	
1	SEWING MACHINE	12	1	-	1	-	1	1	23.07
2	TECHNICAL TERMS, SEAMS AND STITCHES	9	-	-	1	-	1	1	17.30
3	INTRODUCTION TO FULLNESS	10	-	1	-	-	-	1	19.23
4	FABRIC TEXTURING	8	-	1	1	1	-	1	15.38
5	TRIMS	8	1	-	-	-	1	1	15.38
6	STUDY OF FABRICS	5	1	1	-	-	-	1	9.61
			09(45marks)			10(100 marks)			100
	<b>TOTAL</b>	<b>52</b>							

**Legend: R; Remember, U: Understand A: Application**

### **CONTENTS**

Unit	Major Topics	Hours Allotted
1	SEWING MACHINE	12
2	TECHNICAL TERMS, SEAMS AND STITCHES	9
3	INTRODUCTION TO FULLNESS	10
4	FABRIC TEXTURING	8
5	TRIMS	8
6	STUDY OF FABRICS	5
	<b>TOTAL</b>	<b>52</b>

### **UNIT – I**

#### **SEWING MACHINE**

**12hr**

- 1.1 Introduction to Sewing Machine.
- 1.2 History of sewing Machine.
- 1.3 Types of sewing machine – Hand operated, leg operated and power operated.

- 1.4 Study of external and internal working parts of Domestic Sewing Machine with neat sketch
- 1.5 Study of external and internal non working parts with neat sketch
- 1.6. Function and uses of the Working and None working parts.
- 1.7 Attachments---Zipper foot, Seam Guide, Hemmer foot, Gathering foot, Button hole Foot.
- 1.8 Defects, causes and remedies of the sewing machine.
- 1.9 Care and Maintenance of the sewing machine.
- 1.10 Selection of sewing machine.

## **UNIT – II**

### **TECHNICAL TERMS, SEAMS AND STITCHES**

**9 hrs**

- 2.1 Introduction to Technical Terms ---Seam allowance, Bias, True Bias, edge finish, Flap, facing, Frog, Grain, Selvedge, Notch mark, Notions, Placket
- 2.2 Introduction to seams.
- 2.3 Types of seams with neat sketch.- Plain, French, flat, show seam and edge Neatening seams.
- 2.4 Introduction and Classification of hand stitches – temporary, permanent and decorative stitches.
- 2.5 Temporary-- Basting / tacking, , tailors tack with neat sketch
- 2.6 Permanent--Running, Hemming, button hole, over casting, back stitch. Cross stitch, Prick stitch with neat sketch.
- 2.7 Decorative stitch - Blanket stitch, chain stitch and Herring bone stitch, Feather stitch with Neat sketch

## **UNIT III**

### **INTRODUCTION TO FULLNESS**

**10 hrs**

- 3.1 Introduction to fullness and classification
- 3.2 Pleats – side, box, inverted, knife, Accordion pleats
- 3.3 Darts – Arrow head dart / Single pointed, diamond dart / fish dart / double pointed
- 3.4 Tucks – pin tucks, space tuck, carded tuck, blind tuck, released tucks, cross Tuck, Shell tuck.

## **UNIT IV**

### **FABRIC TEXTURING**

**8hrs**

- 4.1 Introduction to Smocking.
- 4.2 Method of Smocking and stitches used in Smocking.
- 4.3 Knowledge of Honey comb.
- 4.4 Study of five different types of Honey comb stitches. With neat sketch
- 4.5 Frills--Single edge Frill, Double edge frill with neat sketch
- 4.6 Ruffle-Plain, Double, Circular and Flounces with neat sketch
- 4.7 Gathering- hand, machine, by gathering foot
- 4.8 Shirring-hand, machine, elasticized shirring.

**UNIT –V**  
**TRIMS**

**8 hrs**

- 5.1 Study and Importance of Trimmings
- 5.2 Classification of Trimmings-Decorative and Functional Trimmings with neat sketch
- 5.2 Study of different types of Threads, Fasteners, Interlinings, Laces - their importance and uses

**UNIT-VI**  
**STUDY OF FABRICS**

**5 hrs**

- 6.1 Cotton, Silk, Wool, Rayon Nylon, polyester, Felt Long cloth, Poplin, Lawn, chintz, Organdie, Mull, denim, Raw silk, Pure silk Jeans, khaki, canvas, casement, Corduroy,
- 6.2 Width of Material Single Width, Medium Width, Double Width
- 6.3 Establish Relationship between Fabric weight, thread type and needle type.

**SEMINAR**

Each student to select one of the following topic for the seminar.

1. Sewing machines
2. Technical terms, seams and stitches:
3. Trimmings and fastenings:
4. Different types of fabrics

**Indicative Reference:**

- Art of sewing –Anna Jacob Thomas
- Complete guide to sewing –Reader digest
- Bend the rules sewing –Amy Karol –potcrus

**LIST OF LEARNING WEB SITES**

- [https://www.youtube.com/watch?v=AAUQNMI dp\\_Y](https://www.youtube.com/watch?v=AAUQNMI dp_Y)
- <https://www.youtube.com/watch?v=BHE82R4i2Vo>
- [https://www.youtube.com/watch?v=kH\\_b3Heo48I](https://www.youtube.com/watch?v=kH_b3Heo48I)
- <https://www.youtube.com/watch?v=YYWlevX7Kw0>

## COURSE ASSESSMENT AND EVALUATION

	What		To Whom	Frequency	Max. Marks	Evidence Collected	Course Outcomes
<b>DIRECT ASSESSMENT</b>	CIE – Continuous Internal Evaluation	I A Tests	Students	Three IA (Average marks of three IA tests are considered)	20	Blue Books	<u>1 to 5</u>
		Class room Assignments		Class room Assignments	05	Log of Activity	<u>1&amp;2</u>
				TOTAL	25		
	SEE – Semester End Examination	End Exam		End Of the Course	100	Answer Scripts	ALL CO's
<b>INDIRECT ASSESSMENT</b>	Student Feedback on course		Students	Middle Of The Course	Feed Back Forms		
	End of Course Survey			End Of The Course	Questionnaire		ALL CO's

**Note:** I.A. test shall be conducted for 20 marks. Average marks of three tests shall be rounded off to the next higher digit.

**Note to I A Verifier :** The following documents to be verified by CIE verifier at the end of semester

- 1 Blue books
- 2 Student suggested activities report for 05 marks
- 3 student feedback on course regarding Effectiveness of Delivery of instructions and Assessment Methods.

### • MODEL OF RUBRICS FOR ASSESSING STUDENT ACTIVITY

Dimension	Scale					Students Score				
	Unsatisfactory 1	Developing 2	Satisfactory 3	Good 4	Exemplary 5	1	2	3	4	5
1. Research & gather information	Does not collect any information relating to the topic	Collects very limited information; some relate to the topic	Collects some basic information; most refer to the topic	Collects a good information; all refer to the topic	Collects a excellent deal of information; all refer to the topic	Ex: 2				
2. Fulfil team's roles & duties	Does not collect any information relating to the topic	Collects very limited information; some relate to the topic	Collects some basic information; most refer to the topic	Collects a good information all refer to the topic	Collects a excellent deal of information; all refer to the topic	3				
3. Shares	Does not	Collects	Collects	Collects a	Collects a	4				

work equally	collect any information relating to the topic	very limited information; some relate to the topic	some basic information; most refer to the topic	good information all refer to the topic	excellent deal of information; all refer to the topic					
4.Listen to other Team mates	Does not collect any information relating to the topic	Collects very limited information; some relate to the topic	Collects some basic information; most refer to the topic	Collects a good information; all refer to the topic	Collects a excellent deal of information; all refer to the topic	5				
<b>Grand Average/Total=(2+3+4+5)=14/4=3.5=4</b>						4				

**Note: The above rubric is only an example. The concerned Course Coordinator may devise appropriate rubrics for the assigned activity.**

## MODEL QUESTION PAPER (CIE)

Test/Date and Time	Semester/year	Course/Course Code	Max Marks		
Ex: I test/6 <sup>th</sup> weak of sem 10-11 a m	I SEM	FUNDAMENTALS OF SEWING TECHNIQUES	20		
	Year: 2015-16	Course code:15FT12T			
Name of Course coordinator :			Units:1,2 Co: 1,2		
<b>Note: Answer all questions</b>					
Question no	Question		CL	CO	PO
1	Enlist sewing machine parts		A	1	1,2
2	With the neat sketch explain balance wheel		U	1	1,2
3	Explain any two defects and remedies of a sewing machine Or Describe any two technical terms with neat sketch		A	2	1,2
4	Explain French seam and its uses OR Explain hemming stitch with neat sketch		R	2	1,2

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MODEL QUESTION PAPER  
PART-A**

**ANSWER ANY SIX QUESTIONS.EACH QUESTION CARRIES FIVE MARKS**

- Q .1. Describe history of sewing machine
- Q .2 . Explain shuttle and its function
- Q 3. Explain any two technical terms with neat sketch
- Q.4 . Write the uses of French seam and Flat seam
- Q. 5. Explain button hole stitch with neat sketch
- Q. 6. Explain darts with neat sketch
- Q. 7. writes a note on fastening?
- Q. 8. writes the importance of smocking in garments?
- Q. 9. Describe width of materials?

## **PART B**

**ANSWER ANY SEVEN QUESTIONS.EACH QUESTION CARRIES TEN MARKS**

- Q.10. Classify sewing machine and explain?  
Q.11. Explain any three internal sewing machine parts?  
Q.12. Classify hand stitches explain any three hand stitches with neat sketch?  
Q.13. Write the uses of following fabrics  
Cotton, casement, nylon, silk, polyester  
Q.14. Describe the following & write their uses?  
Gathering & shearing  
Q.15. Explain any four pleats with neat sketch?  
Q.16. Explain functional & Decorative trimmings?  
Q.17. Describe the importance of frills & flounces with neat sketch  
Q.18. Explain the following with needle movement?  
1. Feather stitch 2. faggotting  
Q.19. How do you rectify the following sewing machine defects?

### **MODEL QUESTION BANK**

**COURSE: FUNDAMENTALS OF SEWING TECHNIQUES  
05 MARKS EACH**

#### **REMEMBERENCE**

- Write the History of Sewing machine  
Write the importance and uses of sewing machine  
Explain Hand operated sewing machine  
Explain Power operated sewing machine  
Explain Leg operates sewing machine  
Enlist any five internal working parts and explain any one  
Enlist any five internal non working parts and explain any one  
Enlist any five external working parts and explain any one  
Enlist any five external non working parts and explain any one  
Describe any two sewing machine attachments  
How do you take care of sewing machine explain  
What are the factors to be considered while selecting a sewing machine  
Explain Bias and True bias with neat sketch

## **UNDERSTAND**

Explain the following technical terms-Notch ,Grain, flap  
Explain French seam and Flat seam  
Describe temporary Hand stitches  
Describe permanent Hand stitches any two with neat sketch  
Describe decorative hand stitches any two with neat sketch  
Explain any two pleats with neat sketch  
Explain any two darts with neat sketch  
Explain any two tucks with neat sketch  
Explain method of Smocking  
Explain method of honey comb  
Describe the stitches used in smocking  
Explain frills with neat sketch  
Explain ruffles with neat sketch

## **APPLICATION**

Explain flounces with neat sketch and describe  
Describe the method of shirring  
Explain gathering and describe the methods of gathering  
Classify trimming materials and explain  
Explain any two fasteners  
Explain types of laces  
Describe single width of material  
Describe medium width of material  
Describe double width of material  
Write the uses of cotton  
Write the uses of wool  
Write the uses of silk  
Write the uses of Rayon  
Write the relationship between needle and thread

**10 MARKS EACH**

## **REMEMBER**

1. Classify the sewing machines and explain
2. Explain needle bar assembly with neat sketch
3. Explain presser bar assembly with neat sketch



4. Explain shuttle with neat sketch and write the importance
5. Write uses of following –feed dog, presser foot, stitch regulator
6. Explain the following attachments –zipper foot, Hemmer foot, buttonhole foot
7. Write the causes and remedies for the following defects-Loop stitches, skips
8. Write the causes and remedies for the following defects-thread breaking, needle breaking
9. How do you select a sewing machine explain in detail
10. Explain sewing machine write the importance and uses

### **UNDERSTANDING**

11. Explain any two seams with neat sketch
12. Explain any two stitches with neat sketch
13. Explain any two decorative stitches with neat sketch
14. Classify pleats and explain with neat sketch
15. Classify Tucks and explain with neat sketch
16. Classify darts and explain with neat sketch
17. Explain different types of shirring methods with neat sketch
18. Explain different types of gathering methods with neat sketch
19. Describe frills and flounces with neat sketch
20. Describe ruffles with neat sketch and write the uses

### **APPLICATION**

21. Explain any five functional trimmings
22. Explain any five decorative trimmings
23. Enlist trimmings and explain
24. Explain trimmings with neat sketch
25. Write note on the following fabrics-lawn, cambric, casement, organdie, canvas
26. Write the uses of following fabrics-khaki, corduroy, jeans, chintz, mull
27. Write the chart of showing relationship between needle, thread and material
28. How do you select machine needles and thread?
29. How do you select fabrics and thread
30. Explain different types of fabrics