



**B.TECH DEGREE EXAMINATIONS: DEC 2022**

(Regulation 2018)

Third Semester

**FASHION TECHNOLOGY**

U18FTT3003: PATTERN MAKING AND ADAPTATION

**COURSE OUTCOMES**

<b>CO1:</b>	Define and classify the patterns and memorize the steps involved in taking body measurement
<b>CO2:</b>	Prepare the basic block patterns for men, women and kids wear based on the principles and methodologies of drafting
<b>CO3:</b>	Prepare patterns for basic blocks using draping techniques
<b>CO4:</b>	Apply dart manipulation techniques to design, variation in garment components
<b>CO5:</b>	Evaluate the techniques involved in pattern alteration for various body measurements and fitting problems
<b>CO6:</b>	Develop knowledge on the techniques involved in grading for various sizes of body measurements

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

1.	Match the concepts in list I to its respective equivalent in list II.					CO1	[K2]
	<b>List I</b>		<b>List II</b>				
	A. Ease		i. Additional measurement along the stitching edge for the purpose of sewing.				
	B. Seam allowance		ii. Additional measurements we add for eating, breathing and other fundamental actions of human body.				
	C. Fullness		iii. Kids wear pattern that fits flat surfaces of the kid's body.				
D. No dart intake		iv. Additional measurement in the form of gather and pleats at a certain design area.					
	A	B	C	D			
a)	ii	i	iii	iv			
b)	ii	i	iv	iii			
c)	ii	iv	iii	i			
d)	iii	i	ii	iv			

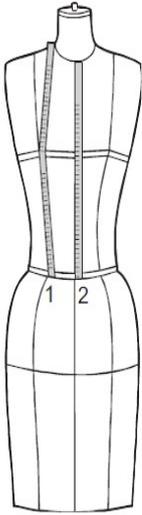
2.	Standard measurements like arm scye depth / arm hole depth is obtained by calculating from basic size and shape defining measurements like: the bust. This system corresponds to		CO1	[K <sub>3</sub> ]
	a)	Fixed system	b)	Direct system
	c)	Indirect system	d)	Proportionate system
3.	Dart intake for basic bodice is calculated applying the following formulas, identify them. 1. ((Half bust + 2.5cm) – (half waist + 1.25cm)). 2. ((1/4 bust – ¼ waist) *2). 3. ((Half hip + 2.5cm) – (half waist + 1.25cm)) 4. ((Bust – waist or Hip – waist + ease) /4)).		CO2	[K <sub>4</sub> ]
	a)	1,3	b)	1,4
	c)	1,2	d)	2,3
4.	Interpret the measurement positions shown in figure 1 as 1 and 2 respectively which are used for pattern drafting.		CO2	[K <sub>3</sub> ]
				
Figure 1				
	a)	1 - full length and 2 – center length	b)	1- full length front and 2 – center front.
	c)	1 - torso length and 2 – neck line length	d)	1 – front length and 2 – center front
5.	Assertion (A): In Draping we remove the excess fabric folds from a reference line called balance line. Reason (R): The balance lines are located at the largest circumferential measurement location on the human body where the fabric makes more surface contact.		CO3	[K <sub>3</sub> ]
	a)	Both A and R are Individually true and R is the correct explanation of A	b)	Both A and R are Individually true but R is not the correct explanation of A
	c)	A is true but R is false	d)	A is false but R is true
6.	The selvedge on muslin fabric is aligned parallel to center front as shown in fig. 2. Indicate the grain line of the fabric draped on the dress form.		CO3	[K <sub>4</sub> ]



Figure 2

	a)	Weft grain	b)	Bias		
	c)	True Bias	d)	Warp grain		
7.	<p>Arrange the steps in sequence for altering a basic pattern of moderate body size and height to pattern for a taller and larger person (plus size) of the following characteristics.            The highest point on the shoulder to bust line measurement is larger for a plus size person and the circumferential measurements: bust, waist and hip are also bigger than that of the basic pattern.</p> <ol style="list-style-type: none"> <li>1. The highest point on the shoulder to bust measurement should be increased on the basic pattern and the bust point is moved towards the side seam.</li> <li>2. Then the basic pattern neckline should be altered to fit the taller person.</li> <li>3. Now increase the bust girth for both front pattern and back pattern.</li> <li>4. As Across Shoulder is also larger, the shoulder length is also altered.</li> </ol>				CO4	[K <sub>3</sub> ]
	a)	2-3-4-1	b)	1-2-3-4		
	c)	1-3-2-4	d)	4-1-3-2		
8.	<p>In the pattern alteration procedure for a skirt pattern, the Length of a skirt pattern can be altered by _____.</p>				CO4	[K <sub>3</sub> ]
	a)	Cut across the hip line and spread the top part and bottom part of skirt by required distance.	b)	Slash on the full length of the skirt and spread it to increase the volume		
	c)	Increase the dart width and dart length, finally the length.	d)	Pivot the side seam edge at skirt bottom and increase the length.		
9.	<p>Assertion (A): Pattern grading is the process of enlarging or diminishing a standard size pattern into patterns of other sizes.            Reason (R): while pattern grading, the original fit and style details remains same.</p>				CO6	[K <sub>3</sub> ]
	a)	Both A and R are Individually true and R is the correct explanation of A	b)	Both A and R are Individually true but R is not the correct explanation of A		
	c)	A is true but R is false	d)	A is false but R is true		
10.	<p>A pattern of US size 6: bust 84 cm, waist 70cm, shoulder 12cm, half neck opening 8.5cm, Armsyce depth 25cm needs to be graded to a US size 8: bust 88cm, waist 76cm, shoulder 12cm, half neck opening 8.5cm, Armsyce depth 26cm. Interpret the cardinal points of</p>				CO6	[K <sub>2</sub> ]

	grading: points at which the grading increments are carried out.			
a)	Center front waist and bust point at side seam	b)	bust point at side seam, Waist at side seam only.	
c)	Bust point at side seam, waist at side seam, shoulder,	d)	Center front, bust point at side seam, Waist at side seam	

**Answer any TEN Questions:-  
PART B (10 x 4 = 40 Marks)  
(Answer not more than 80 words)**

11. Choose an appropriate pattern making principle for producing the Style shown in Figure 3 and justify your choice.

CO1 [K4]



figure 3

12. Choose a size labelling approach that is appropriate for the measurements and the garment shown in figure 4 and justify your choice.

CO1 [K4]

<b>DATE</b>	20/10/2019	<b>SEASON</b>	SS18	<b>STYLE</b>	NC SS 1807	<b>TRIMS</b>	CONCEALED ZIPPER
<b>TYPE</b>	WOMEN'S MAXI DRESS			<b>DESCRIPTION</b>	MAXI DRESS WITH FRENCH DART AND SIDE PANEL FROM WAIST		
<b>FABRICATION</b>	100% POLYESTER						

MEASUREMENTS	FRONT	BACK
HSP TO BOTTOM HEM	43"	44"
CENTER FRONT AND CENTER BACK	39"	42"
ACROSS CHEST	18"	18 1/2"
ACROSS SHOULDER	14"	8"
SHOULDER WIDTH	2 1/2"	2 1/2"
BOTTOM HEM	25 1/2"	27"
DART LENGTH	8"	10"
LENGTH BETWEEN DART & SIDE SEAM	5"	4"
DART ON SIDE SEAM FROM ARMHOLE	10"	12"
NECK DROP	4 1/2"	1 1/2"
NECK WIDTH	7 1/2"	7 1/2"
NECK LENGTH	12"	9"
ARMHOLE LENGTH	8 1/2"	8 1/2"
ZIPPER LENGTH		18 1/2"
SLIT OPENING		8"
BACK PANEL WIDTH AT BOTTOM HEM		13 1/2"
BACK PANEL WIDTH AT ACROSS SHOULDER		8"
BOTTOM HEM WIDTH	1/2"	1/2"

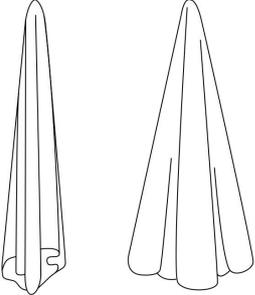
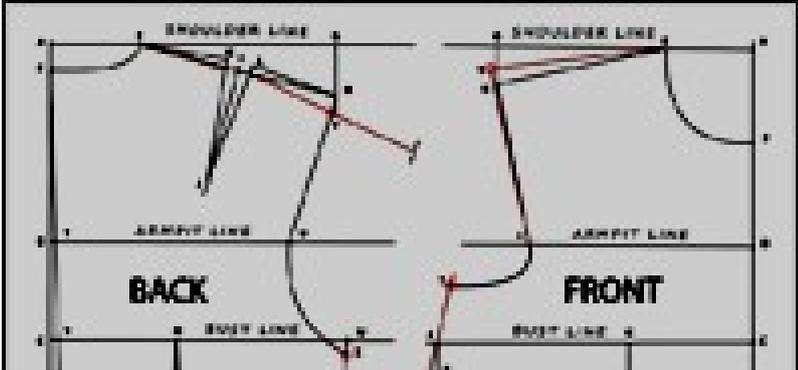
  

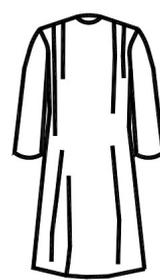
FRONT                      BACK

Figure 4

13. Determine the information available on the finished pattern.

CO2 [K5]

14.	Calculate the dart intake for Women's trouser, front crotch extension and back crotch extension for trouser measurements of waist = 68cm, Hip = 94cm.	CO2	[K <sub>3</sub> ]		
15.	Interpret the fabric preparation steps that are carried out for draping method applications.	CO3	[K <sub>2</sub> ]		
16.	There are two fabrics of different draping quality shown in figure 5a, 5b. Choose the right fabric for making a shirt and justify the choice.	CO3	[K <sub>5</sub> ]		
 <p>Figure 5a, 5b</p>					
17.	Illustrate the possibility of dividing and shifting a basic waist dart without disturbing the fit of the garment.	CO4	[K <sub>2</sub> ]		
18.	Attribute the benefits of slash and spread technique for adding fullness in a sleeve pattern	CO4	[K <sub>5</sub> ]		
19.	The back pattern shoulder drop is decreased by raising the shoulder tip edge upwards and the front shoulder drop is increased by lowering the shoulder tip as shown in figure 6. Determine why this alteration is done for a person with bent back at shoulder (hunch back)	CO5	[K <sub>5</sub> ]		
 <p>Figure 6</p>					
20.	For a person with large tummy, infer the alteration required in a regular fitting shirt.	CO5	[K <sub>5</sub> ]		
21.	Analyze why size interval levelling is required for efficient grading.	CO6	[K <sub>4</sub> ]		
22.	Appraise the concept of suppression grading.	CO6	[K <sub>5</sub> ]		
<p><b>Answer any FIVE Questions:</b>  <b>PART C (5 x 10 = 50 Marks)</b>  <b>(Answer not more than 250 words)</b></p>					
23.	a)	Illustrate the 5 factors affecting the size chart preparation.	5	CO1	[K <sub>2</sub> ]
	b)	Infer the advantages of Computerized 3D body scanning system for measuring human bodies.	5	CO1	[K <sub>2</sub> ]

24.	a)	Construct a women's front bodice pattern in the following measurements. Waist = 76cm, Bust = 88cm, Shoulder = 13cm, Armsyce depth = 25.5cm, half neck opening = 8.2cm, Center front = 42cm, Full length front = 48cm.	10	CO2	[K <sub>6</sub> ]
25.	a)	Demonstrate the principles of draping followed in the making of the dress shown in figure 7 below.  <div style="text-align: center;">  <p><b>Float</b> Straight dress with no waistline seam, fullness controlled from pleats or gathers at shoulders or yoke.</p> </div> <p style="text-align: center;">figure 7</p>	10	CO3	[K <sub>3</sub> ]
26.	a)	Organize the steps required for shifting a part of waist dart to armhole dart by slashing and spreading method with a neat sketch as shown in figure 8.  <div style="text-align: center;">  <p style="text-align: center;">Figure 8</p> </div>	10	CO4	[K <sub>4</sub> ]
27.	a)	Illustrate the three techniques of pattern alteration with the help of an example.	10	CO5	[K <sub>2</sub> ]
28.	a)	Illustrate vector grading with a diagram.	5	CO6	[K <sub>2</sub> ]
	b)	Infer whether a waist dart be graded while increasing or decreasing the other pattern measurements.	5	CO6	[K <sub>2</sub> ]

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