



**B.TECH. DEGREE EXAMINATIONS: APRIL / MAY 2023**

(Regulation 2018)

Third Semester

**FASHION TECHNOLOGY**

U18FTT3003: Pattern Making and Adaptation

**COURSE OUTCOMES**

**CO1:** Define and classify the patterns and memorize the steps involved in taking body measurement

**CO2:** Prepare the basic block patterns for men, women and kids wear based on the principles and methodologies of drafting

**CO3:** Prepare patterns for basic blocks using draping techniques

**CO4:** Apply dart manipulation techniques to design, variation in garment components

**CO5:** Evaluate the techniques involved in pattern alteration for various body measurements and fitting problems

**CO6:** 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 1 to its respective equivalent in list II.

CO1 [K2]

List I		List II	
A. Seam allowance		i. A label that represents the measurements and shape of the individual or a group of people	
B. Size		ii. Foundation pattern with movement ease and no seam allowance	
C. Bodice Block / Sloper pattern		iii. excess fabric fold sewn in to give shape	
D. Dart		iv. Additional allowance added to the margins of the pattern for stitching	

- |    |     |    |     |     |
|----|-----|----|-----|-----|
|    | A   | B  | C   | D   |
| a) | ii  | i  | iii | iv  |
| b) | iii | iv | ii  | i   |
| c) | iv  | i  | iii | ii  |
| d) | iv  | i  | ii  | iii |

2. Head theory divides the height of the person in terms of head height thus it uses the concept of \_\_\_\_\_

CO1 [K2]

- |                   |                |
|-------------------|----------------|
| a) constants      | b) Proportions |
| c) Random numbers | d) Divisions   |



8. Infer the steps for altering the fit of the garment shown in the figure 2.

CO5 [K<sub>3</sub>]

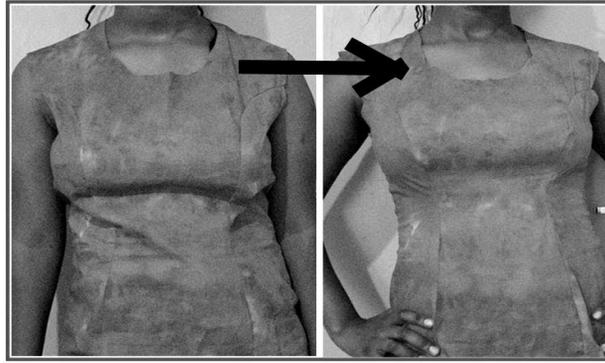


Figure 2

- a) fold a pleat method for decreasing the pattern measurements.      b) Remove the excess gaps in the pattern by introducing darts & contouring method
- c) Introduce darts for removing the excess gaps in the pattern      d) Pivoting method for decreasing the pattern measurements
9. Assertion (A): Pattern grading is applied for converting a single size to other sizes      CO6 [K<sub>3</sub>]  
Reason (R): The other sizes are produced by applying a grading rule to increase or decrease the pattern measurements from the standard size.
- a) Both A and R are Individually true and R is the correct explanation of A      b) Both A and R are Individually false
- c) A is true but R is false      d) A is false but R is true
10. Identify the method of grading suitable for grading a tight fitted swim suit top.      CO6 [K<sub>2</sub>]
- a) Radial grading      b) 2D grading
- c) Grading      d) 3D grading

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

11. Infer the characteristic features of commercial pattern.      CO1 [K<sub>4</sub>]
12. Indicate the factors affecting sizing system      CO1 [K<sub>2</sub>]
13. Bust size 88cm, Waist 80cm. Calculate the dart intake for front bodice pattern and back bodice pattern.      CO2 [K<sub>4</sub>]
14. Determine to what extent, the waist measurement on the pattern should be increased by slashing and spreading for adding 5 pleats of each 5cm width each on the skirt waist of 72cm.      CO2 [K<sub>4</sub>]
15. Explain the fabric preparation process applied in draping style pattern making.      CO3 [K<sub>2</sub>]
16. While making skirt by draping method, suggest the best positions for the darts. Attribute the reason for placing dart at these locations.      CO3 [K<sub>3</sub>]
17. Suggest a dart manipulation technique to transfer a waist dart to side seam dart on the trouser pattern.      CO4 [K<sub>3</sub>]
18. Appraise any two different techniques of adding fullness to the garment.      CO4 [K<sub>4</sub>]

- |     |  |     |                   |
|-----|--|-----|-------------------|
| 19. | Differentiate between cut and spread grading and shift grading system. | CO6 | [K <sub>4</sub> ] |
| 20. | Brief about size interval and grading rule.                            | CO6 | [K <sub>2</sub> ] |
| 21. | Illustrate the phenomenon of 2D grading concept.                       | CO6 | [K <sub>2</sub> ] |
| 22. | List the advantages of 3D grading.                                     | CO6 | [K <sub>1</sub> ] |

**Answer any FIVE Questions:-  
PART C (5 x 10 = 50 Marks)  
(Answer not more than 250 words)**

- |     |  |    |     |                   |
|-----|--|----|-----|-------------------|
| 23. | a) Explain head theory with a neat illustration  | 5  | CO1 | [K <sub>2</sub> ] |
|     | b) Explain the concept of flat pattern making.   | 5  | CO1 | [K <sub>2</sub> ] |
| 24. | Construct a women's front bodice pattern in the following measurements and give an account of the procedure. Bust – 88cm, Waist = 70cm, Armhole at 22.5cm from center back neck, full length = 42cm, Shoulder length = 15cm, Shoulder slope = 3cm. | 10 | CO2 | [K <sub>6</sub> ] |
| 25. | Elaborate on the principles of draping for achieving a proper fitted garment.  | 10 | CO3 | [K <sub>2</sub> ] |
| 26. | Organize the steps required for adding fullness at the shoulder and upper chest of a bodice top for producing the design shown in figure 3.  | 10 | CO4 | [K <sub>4</sub> ] |



Figure 3

- |     |   |    |     |                   |
|-----|---|----|-----|-------------------|
| 27. | Judge whether the dress pattern of a standard model US size 10 can be altered into a dress pattern for plus size of US size 16 shown in figure 4 and Attribute the reasons. The bust measurement is larger by 18cm and waist measurements is larger by 16cm each. | 10 | CO5 | [K <sub>5</sub> ] |
|-----|---|----|-----|-------------------|



Figure 4

28. Appraise the process of altering the fit of the dress design of a person who 10 CO5 [K5]  
reduced her weight from 102kgs to 76kgs as shown in the figure 5. Bust  
measurement changed from 100 to 92cm, waist changed from 102cm to 94cm,  
shoulder measurement is same except the additional ease (2cm) which needs to  
be addressed.



Figure 5

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