

**R4122**

**Sub. Code**

**25BFT1C1**

**B.Voc. DEGREE EXAMINATION, NOVEMBER – 2025**

**First Semester**

**Fashion Technology**

**TEXTILE SCIENCE**

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. The fibre that has natural crimp and resilience is: (CO1, K1)  
(a) Silk (b) Wool  
(c) Cotton (d) Polyester
2. The lustre of silk is due to: (CO1, K2)  
(a) Natural wax coating  
(b) Triangular cross-section  
(c) Protein composition  
(d) High elasticity
3. The direction of yarn twist is represented as: (CO2, K1)  
(a) X and Y (b) A and B  
(c) S and Z (d) U and V
4. In chemical spinning, dry spinning uses: (CO2, K2)  
(a) Heat to melt polymer  
(b) Solvent evaporation  
(c) Coagulation bath  
(d) Mechanical drafting

5. In weaving, “draft” refers to: (CO3, K1)
- (a) Arrangement of warp threads in healds
  - (b) Sequence of picks in fabric
  - (c) Overlapping floats
  - (d) Cross-section of yarn
6. Twill weave is identified by: (CO3, K2)
- (a) Vertical lines      (b) Horizontal lines
  - (c) Diagonal lines      (d) Checkered effect
7. Rib knit structure is formed by: (CO4, K2)
- (a) Two needle beds      (b) One needle bed
  - (c) Warp yarns only      (d) Felting method
8. Tricot fabric belongs to: (CO4, K1)
- (a) Weft knitting      (b) Warp knitting
  - (c) Crochet      (d) Nonwoven
9. Bonding in nonwoven fabrics can be achieved using: (CO5, K2)
- (a) Adhesives and heat
  - (b) Needles
  - (c) Braiding
  - (d) Drafting
10. Nonwoven method commonly used in felt carpet manufacturing: (CO5, K1)
- (a) Lamination      (b) Felting
  - (c) Braiding      (d) Netting

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Explain the scope and classification of textile fibres with examples. (CO1, K4)

Or

- (b) Differentiate between natural and regenerated fibres in terms of properties and uses. (CO1, K4)

12. (a) Demonstrate the role of doubling and drawing in yarn manufacture. (CO2, K3)

Or

- (b) Examine the importance of twist in yarn properties. (CO2, K3)

13. (a) Illustrate the steps involved in acetate rayon fibre production. (CO3, K3)

Or

- (b) Justify the need for man-made fibres in comparison with natural fibres in modern applications. (CO3, K5)

14. (a) Analyze the fabric construction principles of satin weave. (CO4, K4)

Or

- (b) Evaluate the significance of selvage formation in woven fabrics. (CO4, K5)

15. (a) Assess the performance characteristics of rib and interlock knit fabrics. (CO5, K5)

Or

- (b) Appraise the uses of nonwovens in industrial and apparel sectors. (CO5, K6)

**Part C**

(5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Critically evaluate the influence of fibre morphology on fabric performance (cotton, silk, nylon). (CO1, K5)

Or

- (b) Examine the limitations of natural fibres and propose synthetic alternatives. (CO1, K6)

17. (a) Design a chemical spinning process flow for viscose rayon production. (CO2, K6)

Or

- (b) Analyze the differences in mechanical vs. chemical spinning with suitable examples. (CO2, K4)

18. (a) Examine the similarities and differences in the manufacturing of wool, acrylic, and nylon fibres. (CO3, K4)

Or

- (b) Design a comparative study framework for evaluating natural vs. regenerated fibre production. (CO3, K6)

19. (a) Compare the drafting and pegging plans of plain and satin weaves with diagrams. (CO4, K5)

Or

- (b) Construct and explain a 3/1 twill weave with applications. (CO4, K4)

20. (a) Develop an innovative design idea for sportswear using nonwoven fabric technology. (CO5, K6)

Or

- (b) Develop an innovative design idea for sportswear using nonwoven fabric technology. (CO5, K6)

**R4123**

**Sub. Code**

**25BFT1C2**

**B.Voc. DEGREE EXAMINATION, NOVEMBER – 2025**

**First Semester**

**Fashion Technology**

**BASICS OF SEWING TECHNIQUES**

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. The first step in garment manufacturing is: (CO1, K1)  
(a) Cutting (b) Spreading  
(c) Pressing (d) Packing
2. Marker efficiency refers to: (CO1, K2)  
(a) Utilization of fabric  
(b) Colour fastness  
(c) Thread strength  
(d) Speed of stitching
3. The cutting machine used for curved lines is: (CO2, K2)  
(a) Straight knife (b) Band knife  
(c) Die cutter (d) Round knife
4. Computerized controlled cutting machines are mainly used for: (CO2, K2)  
(a) Sewing precision  
(b) Fabric spreading  
(c) High accuracy and speed  
(d) Packaging

5. The machine used for making stitches that strengthen edge of buttonholes is: (CO3, K1)
- (a) Bar tacking machine
  - (b) Buttonhole machine
  - (c) Overlock machine
  - (d) Feed of arm machine
6. Ruffler is an attachment used for: (CO3, K2)
- (a) Gathering fabric (b) Cutting fabric
  - (c) Pressing seams (d) Packing garments
7. The main function of bobbin case is: (CO4, K2)
- (a) Holding the fabric
  - (b) Controlling lower thread tension
  - (c) Feeding the cloth
  - (d) Guiding the needle
8. The component responsible for moving fabric under the needle is: (CO4, K1)
- (a) Bobbin (b) Presser foot
  - (c) Feed mechanism (d) Shuttle hook
9. Fusing is mainly carried out to: (CO5, K2)
- (a) Cut fabrics (b) Join interlining to fabric
  - (c) Reduce shrinkage (d) Increase strength of stitches
10. The most commonly used packaging material in apparel industry is: (CO5, K1)
- (a) Plastic bags (b) Aluminium sheets
  - (c) Cotton cloth bags (d) Wooden boxes

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Explain the purpose and methods of fabric spreading. (CO1, K4)

Or

- (b) Assess the efficiency of marker planning in minimizing fabric wastage. (CO1, K5)

12. (a) Demonstrate the working of straight knife and band knife cutting machines. (CO2, K3)

Or

- (b) Compare manual and computerized cutting techniques. (CO2, K4)

13. (a) Evaluate the significance of overlock and bar tacking machines in garment assembly. (CO3, K5)

Or

- (b) Appraise the functions of hemmers and binders in sewing. (CO3, K6)

14. (a) Analyze the feeding mechanisms used in sewing machines. (CO4, K4)

Or

- (b) Assess the importance of stitch auxiliaries in maintaining stitch quality. (CO4, K5)

15. (a) Justify the importance of pressing in garment finishing. (CO5, K6)

Or

- (b) Examine the role of packaging in enhancing garment quality during transit. (CO5, K4)

**Part C**

(5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Critically evaluate the role of computerized marker planning in large-scale production. (CO1, K5)

Or

- (b) Analyze the challenges in manual marker planning with suitable examples. (CO1, K4)

17. (a) Assess the merits and limitations of die cutters in fabric cutting. (CO2, K5)

Or

- (b) Develop a comparative analysis of cutting machines used in bulk production. (CO2, K6)

18. (a) Appraise the significance of special sewing machines in garment quality. (CO3, K5)

Or

- (b) Evaluate the role of special attachments in improving sewing efficiency. (CO3, K6)

19. (a) Critically analyze different stitching mechanisms in sewing machines. (CO4, K5)

Or

- (b) Propose modifications to reduce common sewing machine problems. (CO4, K6)

20. (a) Examine the scope of fusing technology in modern apparel industry. (CO5, K4)

Or

- (b) Develop innovative packaging strategies to reduce environmental impact. (CO5, K6)