



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)

Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

Master's Degree Examination – May 2025

II Semester

Class : I P.G.
Major : Textiles and Fashion Apparel

Time: 3 Hours
Max. Marks: 100

23MTFC07 Knitting Technology

Course Outcomes:

CO1: Understand the basic principles and mechanism of knitting production.

CO2: Classify and understand knitted fabric production methods.

CO3: Execute acquired knowledge to identify different knitted structures.

CO4: Compare different warp and weft knitted methods.

CO5: Create new designs for knitted fabrics based on the acquired knowledge.

Part A

10 x 1 = 10

Choose the Correct Answer

1. Which of the following is not a knitting element? CO1K1
a. Needle b. Sinker c. Shuttle d. CAM
2. Identify the key difference between weaving and knitting? CO1K1
a. Weaving uses a single yarn, knitting uses multiple
b. Weaving creates loops, knitting interlaces yarns
c. Knitting creates loops, weaving interlaces yarns
d. Both processes are identical
3. Realise the significance of needle gating? CO2K1
a. Controlling yarn twist b. Determining fabric width
c. Synchronizing knitting elements d. Adjusting tension
4. Which of these devices ensures consistent supply of yarn in knitting? CO2K1
a. Spreader b. feeder c. Pattern wheel d. Sinker
5. Which of the following is a derivative of Rib knit? CO3K1
a. Satin b. Half Cardigan c. Weft lock knit d. Fair Isle
6. Recognize the primary factor influencing fabric properties in weft knitting? CO3K1
a. Machine speed b. Needle gating c. Yarn dyeing d. Loop length
7. Recall the function of the pattern drum in flat knitting machine CO4K1
a. Feeding yarn b. Controlling loop length c. Controlling tension d. Patterning designs
8. Which of the following machines is used for creating intricate designs in socks knitting? CO4K1
a. Circular knitting machine b. Flat knitting machine
c. Jacquard knitting machine d. Warp knitting machine
9. Which needle type is used in Raschel knitting machines? CO5K1
a. Compound b. Bearded c. Latch d. All of the above
10. What is the primary function of a guide bar in warp knitting? CO5K1
a. Loop formation b. Yarn feeding c. Pattern control d. Machine speed adjustment

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Compare and contrast the principles of weft and warp knitting. CO1K4
(or)
- 11.b. Explain the functions of key knitting elements. CO1K2
- 12.a. Describe the knitting cycle of a rib knitting machine. CO2K2
(or)
- 12.b. Explain the role of Jacquard knitting in design creation. CO2K2
- 13.a. Discuss how loop length and shape influence fabric properties. CO3K2
(or)
- 13.b. Indicate the knitted fabric defects and discuss their causes and remedies. CO3K3
- 14.a. Outline the classification of flat knitting machines. CO4K4
(or)
- 14.b. Describe the parts and functions of socks knitting machine. CO4K2
- 15.a. Differentiate between Tricot and Raschel knitting machines. CO5K4
(or)
- 15.b. Describe the knitting cycle of a double needle bar knitting machine. CO5K2

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Discuss the history of knitting and compare hand knitting with machine knitting. CO1K3
(or)
- 16.b. Analyze the yarn quality requirements and properties of knitted fabrics. CO1K4
- 17.a. Illustrate and explain the yarn passage in a circular knitting machine. CO2K3
(or)
- 17.b. Explain the types of needles and importance of needle timing in knitting machines. CO2K2
- 18.a. Analyze the structure and properties of Plain, Rib, Interlock, and Purl knits. CO3K4
(or)
- 18.b. Explain the formation and properties of knit, tuck and float stitches. CO3K2
- 19.a. Describe the production of fabric designs using flat knitting machines. CO4K2
(or)
- 19.b. Compare the design capabilities of flat and socks knitting machines. CO4K3
- 20.a. Demonstrate the classification and functions of warp knitting elements. CO5K3
(or)
- 20.b. Evaluate the performance of warp knitted structures, sharkskin and queen's cord. CO5K5
