



M.TECH DEGREE EXAMINATIONS: JUNE 2017

(Regulation 2015)

Second Semester

APPAREL TECHNOLOGY

P15ATT202 : Advanced Knitwear Technology

COURSE OUTCOMES

- CO1:** Appreciate importance of seamless knits in apparels
- CO2:** Identify machinery for making seamless knit apparels
- CO3:** Understand technology involved in making seamless knit apparels
- CO4:** Recognize fabric requirements for knitwear
- CO5:** Possess required knowledge on quality control of knitted apparels.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Assertion (A):Seamless garments are made only in Flat knitting machines CO1 [K₁]
Reason (R):Multiple gauges are possible in seamless machines
 a) Both A and R are true and R is the correct explanation of A b) Both A and R are true and R is not the correct explanation of A
 c) A is true and R is false d) A is false and R is true
2. “CONTRA” knitting technique helps in CO1 [K₂]
 a) Reduced needle movement b) Shorter cam path
 c) More stitches/cm d) Reduces fly
3. ----- is a important geometrical parameter of a loop CO2 [K₂]
 a) GSM b) Stitch density
 c) Spirality d) Loop length
4. Matching type item with multiple choice code CO2 [K₁]

List I	List II
A. Class 300 stitches	i. More designs
B. French seam	ii. vest
C. Moisture absorption	iii. Delicate fabrics
D. Multi track knitting	iv. Underwear

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

5. Assertion (A):Outerwear fabrics should have UV protection CO3 [K₃]
Reason (R):UV protection is measured by UPF or SPF values
- 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. Most of the swimwear are made of ----- material CO3 [K₂]
- a) Polyester b) Acrylic
c) Jute d) Polypropylene
7. Find out the correct statements from the following CO4 [K₃]
- i. Sweaters are fully fashioned knitwear
ii. Cotton is used in making sweaters
iii. Sweaters are produced by Cardigan stitches
iv. Weaving method is adopted for making sweaters
- a) 1,3 b) 1,4
c) 1,2 d) 2,3
8. Guage of Shima seamless socks knitting machine is CO4 [K₂]
- a) 10 b) 100
c) 20 d) 5
9. An increase in yarn “tex” would only make the loop CO5 [K₃]
- a) Looser b) Thicker
c) Tighter d) wider
10. Identify correct sequence for knitwear production. CO5 [K₄]
1. Fabric takedown
2. Relaxation
3. Finishing
4. Garmenting
- a) 1-2-4-3 b) 2-1-3-4
c) 4-3-1-2 d) 3-1-2-4

PART B (10 x 2 = 20 Marks)

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| 11. Recall few integral garment machineries for apparels. | CO1 | [K ₁] |
| 12. Examine the applications of multi-track knitting machines. | CO1 | [K ₄] |
| 13. Explain Run- in- ratio. | CO2 | [K ₂] |
| 14. Identify few special attachments used in sewing. | CO2 | [K ₃] |
| 15. List few fabric requirements for arm warmers. | CO3 | [K ₁] |
| 16. Plan the operation sequence for a bifurcated garment. | CO3 | [K ₃] |
| 17. Determine minimum fashioning angle. | CO4 | [K ₅] |
| 18. Predict few basic techniques in integral garments. | CO4 | [K ₆] |
| 19. Define fabric aerial density. | CO5 | [K ₁] |
| 20. Discover causes of seam puckering. | CO5 | [K ₄] |

PART C (6 x 5 = 30 Marks)

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| 21. Classify knitwear machines in detail. | CO1 | [K ₂] |
| 22. Discuss the various developments in modern circular knitting machines. | CO1 | [K ₆] |
| 23. Justify the production technology used for vest and lingerie. | CO2 | [K ₅] |
| 24. Elaborate on operation sequence for t-shirts and swimwear. | CO3 | [K ₆] |
| 25. Analyze on shape generation techniques in fully fashioned garments. | CO4 | [K ₄] |
| 26. Determine the causes of spirality in knitted fabrics. | CO5 | [K ₅] |

Answer any FOUR Questions

PART D (4 x 10 = 40 Marks)

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| 27. Discuss in detail on seamless knitting machines, the technology used ,applications, merits and demerits. | CO1 | [K ₆] |
| 28. Classify stitches and seams, Run-in-ratio, with application of stitches and seams in inner and outerwear knitted garments. | CO2 | [K ₂] |
| 29. Determine fabric quality requirements for inner and outerwear. | CO3 | [K ₅] |
| 30. Propose the integral garment production of upper and lower body garments with relevant sketches. | CO4 | [K ₆] |
| 31. Discuss various fabric dimensional states - dry relaxed state, wet relaxed state and fully relaxed state and give its importance in fabric quality. | CO5 | [K ₆] |
