



Name :

Roll No. :

Invigilator's Signature :

**CS/B.TECH (APM)/SEM-6/APM-604/2010
2010**

KNITWEAR TECHNOLOGY

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP - A

(Multiple Choice Type Questions)

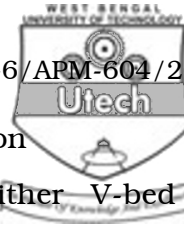
1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) Weft knitted fabrics are preferred for apparels than warp knitted fabrics due to
- a) lower cost
 - b) suitable structure
 - c) better technology
 - d) easy to operate.
- ii) Faults appear on knitted fabrics due to
- a) yarn quality
 - b) problems on knitting machines
 - c) problems during dyeing and finishing of fabrics
 - d) all of these.



- iii) All the single jersey weft knitted structures essentially require
- a) Knit loops
 - b) Tuck loops
 - c) Miss loops
 - d) All of these.
- iv) On a flat knitting machine, which structure of knitted fabrics is generally made ?
- a) Single jersey
 - b) Rib
 - c) Interlock
 - d) All of these.
- v) Which yarn property is responsible for making spirality of weft knitted fabrics prominent ?
- a) Bursting strength
 - b) Elongation
 - c) Twist
 - d) Thick and thin places.
- vi) Fully fashioned garments have
- a) no cutting waste
 - b) edges that do not fray
 - c) can be joined by simple non-bulky seams
 - d) all of these.
- vii) All knitted garments can be classified according to general production method into which of the following ?
- a) Integral and fully cut
 - b) Fully cut and stitch shaped
 - c) Fully cut, stitch shaped, fully fashioned and integral
 - d) None of these.
- viii) Common collar styles for knitted garments are
- a) 'V' neck and round neck
 - b) Round neck and polo neck
 - c) Shirt neck, 'V' neck, round neck, turtle neck, polo neck
 - d) Shirt neck, Square neck, 'V' neck, polo neck, turtle neck.



- ix) Fully fashioned garments are produced on
- hand flat knitting machinery, either V-bed or domestic single bed
 - only 'V' bed
 - only domestic single bed
 - none of these.
- x) The speed of overlock machine is categorized by
- maximum speed in stitches per minute
 - the production in meters of seam per minute at maximum stitch length
 - either of these
 - none of these.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

- Compare the essential properties of woven and knitted fabrics for apparel use.
- How do knit, tuck and miss stitches influence the structural design of weft knitted fabrics ?
- Compare single jersey and rib fabrics from the view point of their use in apparels.
- Write short notes on the following :
 - Cutting machines
 - Sewing defects.
- What are the different kinds of seams used in sweater ?



GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. a) Explain the techniques of forming knit, tuck and miss loops on weft knitted fabrics. 8 + 7
- b) Write in brief about the process and products of warp knitting. 8 + 7
8. a) Explain the basic principle of producing rib fabric on a flat knitting machine.
- b) Spun yarns used for knitting demand more stringent norms of yarn properties than the yarns for weaving. Explain this, considering the relevant yarn properties. 8 + 7
9. a) Quality of weft knitted fabrics depend very much on the quality and maintenance of different knitting elements of the machine. Justify this mentioning some important fabric defects.
- b) What would be the production in kg/hour of a single jersey weft knitting machine of 30 inch diameter, 24 Gauge, 96 feeders and running at 30 r.p.m., producing basic single jersey cottong fabric of 2.5 mm stitch length using 24s yarn ? Assume any value of efficiency of your reasonable choice. 8 + 7
10. What do you know about the types of circular sweater strip machines ? What are the production techniques for sweaters ?
11. What are the types of yarns used for winter garments ? What are the quality specification and requirements of fabric for winter garments ?