

16104(D) 0 DEC 2016

**B. Tech 3rd Semester Examination**  
**Textile Machines and Processes (CBS)**

**TE-301**

**Time : 3 Hours**

**Max. Marks : 60**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Candidates are required to attempt five questions in all selecting one question from each section A, B, C & D of the question paper and all the subparts of the questions in Section E.

**SECTION - A**

1. (a) Discuss the job opportunities for textile technologists.  
(b) What are the basic requirements of fibre forming polymers? (5+5=10)
2. (a) Differentiate between the direct and indirect numbering system.  
(b) Explain the contribution of orientation and crystallinity in shaping the fibre properties. (5+5=10)

**SECTION - B**

3. (a) What are the objectives of spinning? What are conventional and non conventional systems of yarn formation?  
(b) What is the significance of doubling in preparatory process? (7+3=10)
4. (a) Differentiate between staple and filament yarn.  
(b) Discuss the sectional warping method with proper figure. (3+7=10)

**SECTION - C**

5. (a) What are the various methods and styles of printing?  
(b) How do the properties of woven fabric differ from knitted structure? (5+5=10)
6. (a) What do you understand by mercerization? How does it affect fabric properties?  
(b) What are the reasons of shifting from conventional weaving to non conventional method of weaving? (5+5=10)

**SECTION - D**

7. (a) Give the classification of various finishes alongwith an example.  
(b) Highlight the main processes involved in conversion of fabric to finished garment. (5+5=10)
8. (a) Explain the process of sanforization.  
(b) Discuss the present scenario of garment industry in India. (5+5=10)

**SECTION - E**

9. (a) Define count.  
(b) Name two natural and two synthetic fibres.  
(c) What is polymerization?  
(d) What are the auxiliary motions of weaving?  
(e) Define Nonwoven Fabrics.  
(f) What is calendaring?  
(g) Prepare a 2/2 twill weave.  
(h) How combed yarn is different from carded yarn?  
(i) What is the function of traveler in ring frame during spinning?  
(j) What is scouring? (2×10=20)