

[Total No. of Questions - 5] [Total No. of Printed Pages - 2]
(2123)

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B. Tech 3rd Semester Examination

Textile Machines Processes (N.S.)

TE-211

Time : 3 Hours

Max. Marks : 100

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 : Attempt five questions in all, select one question from each sections A, B, C and D. Section E is compulsory.

SECTION - A

1. What is yarn numbering system? Differentiate between direct and indirect yarn numbering systems with suitable examples. Find the conversion factor between English count and denier?
(20)

OR

- (a) Define textile fibre. Classify different textile fibres according to their origin. (14)
- (b) Write a note on polymerization, crystallinity and orientation. (6)

SECTION - B

2. What are the objectives of spinning? List the sequence of all machines used for spinning cotton combed yarn. Also state the objects of each machine. (20)

OR

Write short note on (a) Comber (b) Ring Frame (c) Winding (d) Sectional warping. (5×4=20)

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SECTION - C

3. Explain the basic motion of weaving. Differentiate between conventional and non-conventional methods of fabric formation. (20)

OR

Explain briefly:

- (i) Style of printing.
- (ii) Objectives of desizing.
- (iii) Bleaching & Mercerizing.
- (iv) Working of Jigger machine. (5×4=20)

SECTION - D

4. Enlist different type of finishing treatments given to fabric according to end use. (20)

OR

Discuss the main processes required for conversion of fabric into finished garments. (20)

SECTION - E

5. (a) Give two main advantages of natural fibres over synthetic fibres.
- (b) Define denier and metric count systems.
- (c) Name any four unconventional methods of spinning technology.
- (d) What is difference between staple spun yarn and filament yarn.
- (e) What fibre characteristics are changed during combing?
- (f) Differentiate between yarn dyeing and piece dyeing.
- (g) State the importance of warping.
- (h) Name a few methods of printing.
- (i) Define a seam.
- (j) Write the effect of twist on yarn strength. (2×10=20)