[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2125)

15234

B. Tech 6th Semester Examination

Textile Chemical Processing-II (OS)

TE-6003

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 from all selecting one question from each section A, B, C & D and all the subparts of the questions in section E.

SECTION - A

1. (a) Discuss the feasibility of producing shades when primary blends are dyed. (10)

   (b) What types of pre-treatment processes are required for cotton and wool materials before dyeing? (10)

2. With suitable diagrams, describe the working principles of the following machines.

   (a) HTHP beam dyeing machine (b) loose fibre dyeing machine (20)

SECTION - B

3. Describe the relative advantages and limitations of roller, flat-bed, and rotary-screen printing machines. (20)

4. (a) How the fabric is carbonised with magnesium chloride? (10)

   (b) Describe the principal stages which are involved in carbonisation process. (10)

[P.T.O.]

SECTION - C

5. State the functions of the following ingredients which are used in printing paste:

   (a) wetting agent (b) dispersing agents and solvents (20)

6. Discuss the following methods which are used for fixation of the prints on the fabrics:

   (a) steaming under pressure (b) superheated steam fixation (20)

SECTION - D

7. How can you identify the acid, basic and direct dye in different coloured samples? (20)

8. Discuss the drawback and advantages associated with the use of nonnitrogenous cross-linking agents. (20)

SECTION - E

9. (a) How you can develop solid shade in a blend?

   (b) What types of impurities are present in natural fibres?

   (c) What do you mean by working liquor ratio in machines?

   (d) Mention some defects which are produced by the operation of carbonization.

   (e) What is the resist-printing method?

   (f) What is the role of thickener in a printing paste?

   (g) Why the crease recovery properties of blended fabrics are better than those of 100% cellulosic fabrics?

   (h) State the role of additives which are required to prepare durable-press textiles.

   (i) How can you evaluate the softening?

   (j) How can you evaluate the water repellency? (2×10=20)