

[Total No. of Questions - 5] [Total No. of Printed Pages - 3]  
(2066)

16140(J)

B. Tech 6th Semester Examination

Textile Chemical Processing (NS)

TE-323

June-16

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. (a) Discuss different type of bonds existing among fibre and dyes. (10)
- (b) Write the Dyeing method of cotton with Indigo dyes. (10)

OR

- (a) Explain the equation  $\Delta\mu = \Delta H - T\Delta S$ . (10)
- (b) Write the classification of Reactive Dyes with its chemical groups. (10)

**SECTION - B**

2. (a) In Padding Mangle explain following terms:
- (i) Expression %
- (ii) Material of the roll
- (iii) M:L ratio (10)

2

16140

- (b) Make a diagram of yarn dyeing m/c and discuss different yarn carriers. (10)

OR

- (a) Explain working of flat bed printing machine and setting of repeat of design. (12)
- (b) Compare the batch dyeing with continuous dyeing in cellulosic materials. (8)

**SECTION - C**

3. (a) Discuss the quality of steam required in steaming and ageing of printed goods. (10)
- (b) Write the chemical reactions of different discharging agents used in discharge printing. (10)

OR

- (a) Find the resist style of printing on cotton fabric with azoic colors. (10)
- (b) Write the choice of thickeners in disperse dyes printing on polyester fabric. (10)

**SECTION - D**

4. (a) Write the name of different anti creasing chemicals with its chemical formula, advantages and disadvantages. Discuss about formaldehyde free anti creasing chemicals. (12)
- (b) Write the method to measure crease recovery angle of fabric. (8)

OR

[P.T.O.]

Write short note on followings:

- (a) Bleaching of Denim fabric
- (b) Enzyme washing
- (c) Stone washing (20)

**SECTION - E**

5. (i)  $H_2O_2$  is used as a ..... textile wet processing .
- (ii) Sodium hydrosulphite is used as a ..... in chemical processing of textiles.
- (iii) The bonding of Reactive dyes with fibre take place in..... pH.
- (iv) The conversion reaction of amino group to azo group is called.....
- (v) The M:L ratio of jet dyeing machine is .....
- (vi) The number of ends in jigger dyeing machine should be .....
- (vii) BTCA is used in textile finishing as a .....
- (viii) Indigo dye is used in dyeing of..... fabric.
- (ix) Dodecyl benzene sulphonic acid is used in making.....
- (x) The J-Box is used in ..... treatments of fabric.  
(2×10=20)