

Q4. Attempt any *two* questions from the following: 6x2=12

- (a) What do you mean by dynamic equilibrium in dyeing?
How are the direct dyes anchored inside cellulose?
- (b) What are the drawbacks of direct dyes? Describe the various methods for overcoming such problems. Which one is the most widely used in industry?
- (c) Classify the cationic dye. Describe the properties of basic dyes and the dyeing procedure of acrylics with these dyes.
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Printed Pages : 4



NCT404

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 164413

Roll No.

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BTECH
(SEM. IV) THEORY EXAM. 2014-15
TEXTILE CHEMISTRY-II

Time : 2 Hours]

[Total Marks : 50

Note : i. Attempt the questions as indicated.

ii. Be precise in your answer.

Q1. Attempt any *four* questions from the following : 3x4=12

- (a) Give the process sequence for P/V fabric with the importance of each step.
- (b) Compare among various desizing methods. What are HT enzymes?

- (c) Classify the detergents with respect to the ionic nature. How are the various impurities of cotton removed in scouring?
- (d) What are the steps involved in gas singeing? Describe the importance of each step.
- (e) Why is the heat-setting of polyester fabrics carried out before dyeing? What are the morphological changes taking place in this process?
- (f) Name the universally accepted bleaching agent. How is silk bleached?

Q2. Attempt any *two* questions from the following: 7x2=14

- (a) What are hydraulic jumbo jiggers? Describe the scouring process in this machine.
- (b) What is anti-chloring treatment? Describe such a semi-continuous bleaching process in which no separate anti-chloring treatment is given. How does the pH play role in cotton bleaching with hydrogen peroxide?

- (c) How is the strength of sodium hypochlorite in the bleaching bath determined? Describe the drying mechanisms in cylinder drying range, radio frequency dryer and hot flue dryer.

Q3. Attempt any *two* questions from the following: 6x2=12

- (a) State the shades produced from Cochineal, Punicagranatum, Rubiacardifolia, Acacia nilotica and Terminaliachebula. Describe the factors on which the colours yield of natural dyes depend.
- (b) What are the steps involved in bulk extraction of natural dyes? Describe the significance of every step.
- (c) What are insect dyes? Describe the importance of mordants. 'Lac acts as acid dyes as well as mordant dyes', explain.