Register Number: ……..

B.TECH DEGREE EXAMINATIONS: MAY/JUNE 2013

Fourth Semester

TEXTILE TECHNOLOGY

TTX107**:** Textile Chemical Processing I

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. For fabrics meant for dyeing and printing _____ is the primary requirement
   a) Uniformity b) Permanency of whiteness
   c) Absorbency d) Lustre
2. Oxidative desizing method
   a) Rot steeping b) Acid steeping
   c) Enzymatic steeping d) Chlorine method
3. _____ is known as universal bleaching agent
   a) Sodium hypochloride b) Calcium hypochloride
   c) Hydrogen peroxide d) Sodium chlorite
4. BAN test is related to
   a) Desizing b) Scouring
   c) Bleaching d) Mercerising
5. The chemical bonds primarily responsible for anchoring of dye molecules in protein fibres as per electro-chemical theory
   a) Covalent bonds b) Physical forces
   c) Ionic links d) Hydrogen bonds
6. _____ is known as ice dye
   a) Vat b) Azoic
   c) Sulphur d) Reactive
7. Identify the **incorrect** statement from the following:
   a) Polypropylene is dyed in in dope form only b) 100% acrylic fibre is very difficult to dye
   c) Carrier dyeing of polyester is carried out at boil d) Disperse dyes are used to produce deep shades on nylon
8. Carrier chemicals are to be removed completely from polyester after dyeing, otherwise _____ fastness is affected
   a) Rubbing b) Wash
   c) Light d) Sublimation

9. Modifying the technique of dyeing to bring about easy diffusion of the dye molecules directly into the polyester fibre is known as
   a) Carrier dyeing
   b) HT dyeing
   c) HTHP dyeing
   d) Thermosolling

10. Machine preferred for dyeing woven fabrics
   a) Winch
   b) Jigger
   c) Soft flow
   d) Jet

PART B (10 x 2 = 20 Marks)

11. Outline the features of gas singeing machine
12. State the importance of degumming of silk
13. Why sodium chlorite bleaching is not popular in India?
14. What is woollenisation of jute?
15. What are metal-complex dyes?
16. List the banned dyes
17. What is carrier dyeing?
18. What is mass colouration?
19. Outline the features of jigger dyeing machine
20. State the advantages of ultrasonic dyeing

PART C (5 x 14 = 70 Marks)

21. a) Elaborate on wet processing sequence for cotton fabrics and objectives of each process

(OR)

b) Give a detailed note on various methods of desizing.

22. a) Explain about continuous bleaching processes in detail.

(OR)

b) Write in detail about chain and chainless padless mercerisation with neat sketches.

23. a) Explain about classification of colourants.

(OR)

b) Write about dyeing of cotton with reactive dyes with suitable process conditions.

24. a) Explain about HTHP and thermosol dyeing of polyester in detail.

(OR)

b) Give an elaborate note on dyeing of nylon and acrylic fibres.

25. a) Write in detail about the soft flow dyeing machines which are operating under air jet and water jet principles.

(OR)

b) Explain about any two modern garment dyeing machines with neat sketches.

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