Register Number: ……..

B.TECH DEGREE EXAMINATIONS: MAY/JUNE 2014

(Regulation 2013)

Second Semester

U13CHT204: CHEMISTRY FOR TEXTILES

(Common to FT & TXT)

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

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. One of the following molecule has zero dipole moment
   a) CCl_4 b) H_2O
   c) NH_3 d) HCl
2. …….. the electro negativity difference between the atoms ……..will be the dipole moment
3. The Example for thermo setting polymer is
   a) Polyethylene b) Poly vinyl chloride
   c) Epoxy resins d) Polypropylene
4. Polyesters are formed by the condensation of ……and ……..
5. The reagent used in calgon conditioning is
   a) Sodium phosphate b) Sodium hexa meta phosphate
   c) Disodium hydrogen phosphate d) Sodium dihydrogen Phosphate
6. Chemical name of zeolite is_____
7. Indigo is a
   a) Vat dye b) Direct dye
   c) Mordant dye d) Phthalein dye
8. Malachite green contains ……as chromogen and ……as auxochrome
9. Sodium lingo sulphonate is
   a) Anionic dispersion agent b) Cationic dispersion agent
   c) Polymeric dispersion agent d) Silane based dispersion agent
10. A Silane molecule contains a central silicon atom bonded to ……..group

PART B (10 x 2 = 20 Marks)

(Not more than 40 words)

11. Define functionality with an example.
12. Write the application of polyethylene.
13. What is Break point chlorination?
14. List the disadvantages of hard water used in textile industries?
15. Differentiate covalent & ionic bond.
16. What are instantaneous dipoles?
17. Define Chromophores. Give examples
18. What are acid dyes?
19. What are the functions of leveling agents?
20. How is unfixed portion of the dyestuff eliminated?

PART C (5 x 14 = 70 Marks)

(Not more than 400 words)

Q.No. 21 is Compulsory

21. (i) What is hydrogen bonding? What are its types? Write the consequences of hydrogen bonding. (10)
    (ii) Explain the principle involved in TGA (4)

22. a) (i) Describe the method of purifying water by ion exchange method (7)
    (ii) Explain the coagulation and sand filtration process involved in treatment of water (7)

    (OR)

    b) (i) How is sea water desalinated by reverse osmosis method. (7)
    (ii) Write the internal conditioning process in treatment of water. (7)

23. a) (i) Differentiate between thermoplastics and thermo setting plastics (7)
    (ii) Give an account of free radical mechanism of polymerization (7)

    (OR)

    b) (i) Write the preparation and properties of Nylon6,6 (7)
    (ii) Explain the types of polymerization with suitable examples (7)

24.	a)	(i)	How are dyes classified? Give examples.	(7)
		(ii)	How will you prepare Eosin	(7)
			(OR)	
	b)	(i)	Explain Chromophore-auxochrome theory	(7)
		(ii)	Write the synthesis of Indigo	(7)
25.	a)	(i)	Discuss on the Naphthalene condensate products	(7)
		(ii)	What are Retarders? Explain the mechanism of retarding agents.	(7)
			(OR)	
	b)	(i)	Give an account of different types of dye fixing agents.	(7)
		(ii)	Write briefly on dispersing agents.	(7)

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