

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- VIth SEMESTER-EXAMINATION – MAY- 2012****Subject code: 162803****Date: 15/05/2012****Subject Name: Chemistry and Applications of Textile Auxiliaries****Time: 10:30 am – 01:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Answer the following **objective** questions. **10**
- i. Auxiliaries are defined as “-----”
 - ii. What is the function of hygroscopic agent?
 - iii. What is difference between zwitter ion and amphoteric surfactant?
 - iv. Give one example of cat ionic dye fixing agent with structure.
 - v. Dispersing agents are mostly anionic in nature-True or False.
 - vi. State one limitation of non ionic surfactant.
 - vii. ----- Surfactant exhibits germicidal property.
 - viii. Define: Angle of contact.
 - ix. Define: Surface tension
 - x. State the unit of surface tension.
- (b)** Explain in brief the techno-chemical aspects of sequestering agents. **04**
- Q.2 (a)** Discuss chemistry and applications of mild oxidizing agents. **07**
- (b)** Explain the chemistry and applications of various cross linking agents. **07**
- OR**
- (b)** Describe with salient features the techno-chemical aspects of Silicone surfactants. **07**
- Q.3 (a)** Give a brief account of uses of migration inhibitors textile processing. **07**
- (b)** Explain mercerizing wetting agents in brief. **07**
- OR**
- Q.3** Explain the chemistry, properties and applications of sodium salts of fatty acids. **14**
- Q.4 (a)** Describe the manufacturing process and applications alkyl phenol ethoxylates. **07**
- (b)** Explain in brief the chemistry and applications of quaternary ammonium salts. **07**
- OR**
- Q.4** Describe elaborately the chemistry and applications of carrier in polyester dyeing. **14**
- Q.5 (a)** Discuss the chemistry and applications of Phosphate Esters. State its advantages over other surfactants. **07**
- (b)** Explain the principle and applications Leveling agents in acid dyeing with Nylon. **07**
- OR**
- Q.5 (a)** Explain Chemistry, Properties and Applications of sulphonated oils & fats. **14**
