

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – WINTER 2013****Subject Code: 162802****Date: 29-11-2013****Subject Name: Analytical Textile Chemistry- II****Time: 02:30 pm to 05:00 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. Give the name of two synthetic sizing adhesives.
 - ii. Mutton tallow is used as a sizing -----.
 - iii. What is meant by azeotropic distillation?
 - iv. What does the ash content in a thickener indicate?
 - v. -----indicator is used for identification of cationic surfactant.
 - vi. Sequestering agents are evaluated in terms of their-----value.
 - vii. -----is a solvent for cotton.
 - viii. Drave's test is used to determine-----of a surfactant.
 - ix. Name the two grades of PVA
 - x. Resin treated fabrics are tested for-----content.
- (b)** Explain the principal of method for determination of copper number. **04**
- Q.2 (a)** Describe the microscopic method for identification of source of starch. **07**
- (b)** Describe the test method with principle, for determination of degree of hydrolysis of PVA. **07**
- OR**
- (b)** Explain quantitative estimation of non ionic surfactant. **07**
- Q.3 (a)** With neat sketch and specification, describe the method for determining wetting power of a wetting agent. **07**
- (b)** Discuss the principle and method for determination of carboxyl content of cellulose. **07**
- OR**
- Q.3 (a)** Describe the methods for evaluation of chelating agents. **07**
- (b)** Give the testing methods to evaluate dispersing agent and a carrier. **07**
- Q.4** Give the test methods for the following: **14**
- i) Quantitative estimation of sodium alginate.
 - ii) Analysis of leveling agent.
- OR**
- Q.4 (a)** Describe reflectance method for determination of strength of dyes. **07**
- (b)** Give the methods for determining tack index and RIMI of a printing thickener. **07**
- Q.5 (a)** Give the methods for determination of active matter content of silicone and poly ethylene emulsion softeners. **07**
- (b)** Describe the method for determination of free formaldehyde content of finished textiles. **07**
- OR**
- Q.5** Elaborately discuss the method for determination of Nitrogen content and phosphorus content of finished textiles. **14**