

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VI • EXAMINATION – SUMMER • 2015**

**Subject code: 162802****Date:04/05/2015****Sub. Name: Analytical Textile Chemistry- II****Time: 10.30AM-01.00PM****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) Describe microscopic method for identification of source of starch. **07**  
(b) Give the test methods for determining cold soluble matter content and starch content of starch. **07**

- Q.2** (a) Explain the principle and procedure of Dean and Stark method for determination of moisture content of a sizing softener. **07**  
(b) Enlist various tests for analysis of sizing softener. Describe the tests for determining inorganic matter content and saponifiable matter content of a tallow softener. **07**

**OR**

- (b) Elaborately discuss Drave's Test with principle, equipment used and method of performing the test. **07**

- Q.3** (a) Give the test methods for evaluation of EDTA and NTA. **08**  
(b) With principle, give the method for determination of carboxyl content of cellulosic material. **06**

**OR**

- Q.3** (a) Elaborately discuss the method of determining Cuprammonium fluidity of a cotton sample. **07**  
(b) Give the method for qualitative and quantitative estimation of cationic dye fixing agent. **07**

- Q.4** (a) Describe IM rate test to evaluate leveling agents for polyester dyeing. **06**  
(b) Describe the methods for evaluation of resist salt and Dispersing agent. **08**

**OR**

- Q.4** (a) Enlist various tests involved in a qualitative analysis of a printing thickener. Give the method for moisture content and ash content of a thickener. **07**

- Q.4** (b) Give the method for the quantitative estimation of Sodium Alginate. **07**

- Q.5** (a) In brief, explain Beer and Lambert laws. Describe the method to determine strength of dyes by transmission method. **07**  
(b) Elaborately discuss the method for determination of Phosphorus content of finished textiles. **07**

**OR**

- Q.5** (a) Give the method to determine active content of silicone and PE emulsions. **06**  
(b) Explain the method for determination of free formaldehyde content of finished textiles with the Principle and chemical reactions involved and calculations. **08**

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