Seat No.: _____ Enrolment No._____

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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