Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER – VI EXAMINATION – WINTER 2015

Subject Code:162802 **Date:17/12/ 2015**

Subject Name: Analytical Textile Chemistry- II

Time:2:30pm to 5:00pm **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 the method to determine adhesive power of starch.	**07**
	(b)	Give the test methods for determining saponification number and Iodine number of tallow used in sizing.	**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)	Give the method to evaluate PVA for degree of hydrolysis.	**07**
		OR	
	(b)	Elaborately discuss the test method to determine wetting power of a wetting agent.	**07**
Q.3	**(a)**	Describe the test method for quantitative estimation of anionic and cationic surfactants.	**08**
	(b)	Explain the principle, significance and chemical reactions taking place in determination of copper number.	**06**
		OR	
Q.3	**(a)**	Describe the method for evaluation of enzymatic desizing agent.	**07**
	(b)	Elaborately discuss the method to evaluate leveling agents for polyester dyeing.	**07**
Q.4	**(a)**	What is cationic dye fixing agent? Give the method for its evaluation.	**06**
	(b)	Describe the methods for evaluation of Carrier and Dispersing agent.	**08**
		OR	
Q.4	**(a)**	Give the test methods to determine ash content and RIMI for a printing thickener.	**07**
Q.4	**(b)**	Describe the method for quantitative estimation of sodium alginate with principle and chemical reactions involved.	**07**
Q.5	**(a)**	Elaborately discuss reflectance method for determination of strength of a dyestuff.	**07**
	(b)	What is fixed and free formaldehyde? Give the method for their determination with significance.	**07**
		OR	
Q.5	**(a)**	Give the method for determining NVC and active content of silicone and PE emulsions.	**08**
	(b)	Elaborately discuss the method for determination of nitrogen content of finished textiles with the Principle, significance and chemical reactions involved.	**06**

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