Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- VIth SEMESTER–EXAMINATION – MAY- 2012

Subject code: 162802 **Date: 11/05/2012**

Subject Name: Analytical Textile Chemistry- II

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)**	Describe azeotropic distillation method for determination of moisture content of a sizing softener.	**07**
	(b)	Enlist various natural and synthetic sizing adhesives. With significance explain the method to evaluate sizing adhesive for its adhesive power.	**07**
Q.2	**(a)**	Describe the test method with principle, for determination of degree of hydrolysis of PVA.	**07**
	(b)	Explain the method to evaluate an enzymatic desizing agent.	**07**
		OR	
	(b)	Describe the method for finding ionic nature of anionic and cationic surfactants.	**07**
Q.3	**(a)**	Discuss, Drave's test with significance, factors affecting and neat sketch.	**07**
	(b)	With principle and chemical reactions explain the method for determination of copper number.	**07**
		OR	
Q.3	**(a)**	Describe the methods for evaluation of chelating agents EDTA and NTA.	**07**
	(b)	Give the testing methods to evaluate dispersing agent and a carrier.	**07**
Q.4	**(a)**	Discuss the methods to evaluate cationic dye fixing agent.	**07**
	(b)	Elaborately discuss the method for evaluation of leveling agents used for polyester dyeing with disperse dyes.	**07**
		OR	
Q.4	**(a)**	Describe the transmission method for determination of strength of dyes by explaining Beers- Lamberts law.	**07**
	(b)	Give the test methods involved in general qualitative analysis of printing thickeners.	**07**
Q.5	**(a)**	With principle, describe the method for quantitative evaluation of Sodium Alginate.	**07**
	(b)	Describe the method for determination of free formaldehyde content of finished textiles.	**07**
		OR	
Q.5	**(a)**	Give the methods for determination of active matter content of silicone and poly ethylene emulsion softeners.	**07**
	(b)	Elaborately discuss the method for determination of Nitrogen content of finished textiles with the significance, principle and chemical reactions involved.	**07**

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