Seat No.: _____ Enrolment No._____

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: i) Quantitative estimation of sodium alginate. ii) Analysis of leveling agent.	**14**
		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**

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