Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER–IV • EXAMINATION – SUMMER 2015

Subject Code: 744001 Date: 01/05/2015

Subject Name: Thermosetting Resins & Silane Technology

Time: 2:30 pm to 5:00 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)**	**Give the difference between Aromatic & Aliphatic Hydrocarbon resins.**	**(07)**
	(b)	**"Rosin will resin but all resin will not be rosin" Justify the statement.**	**(07)**
Q. 2	**(a)**	**Short note on "Polyurethane resin".**	**(07)**
Q. 2	**(b)**	**Explain the chemistry and preparation of Urea formaldehyde resin.**	**(07)**
		OR	
	(b)	**Explain the manufacturing process of Amino Resin. Discuss its properties & applications.**	**(07)**
Q. 3	**(a)**	**Explain the acrylic monomers and production of acrylic adhesives.**	**(07)**
	(b)	**Discuss the curing techniques of Epoxy resin.**	**(07)**
		OR	
Q. 3	**(a)**	**Short note on: "Acrylic Sealants".**	**(07)**
	(b)	**Describe the synthesis and chemistry of Epoxy resin.**	**(07)**
Q. 4	**(a)**	**Discuss about additives used in Thermoset resin.**	**(07)**
	(b)	**List the methods for Thermoset resins processing. Explain any two in detail.**	**(07)**
		OR	
Q. 4		**Give the classification of Phenolic resin. Explain about any one. Describe the properties and applications of Phenolic resin.**	**(14)**
Q. 5	**(a)**	**Discuss in detail about the applications of silane coupling agent.**	**(07)**
	(b)	**Discuss the manufacturing process and uses of Unsaturated Poyester Resin.**	**(07)**
		OR	
Q. 5	**(a)**	**Define the term "Silane coupling agent". Explain their chemistry in detail.**	**(07)**
	(b)	**Write the properties of Un-reinforced Polyester Resin.**	**(07)**

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