Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION - WINTER • 2014

Su	bject	Code: 153606 Date: 03-12-2014	
Ti	•	Name: Polymeric and Rubber Materials - II 0:30 am - 01:00 pm Total Marks: 70	
	1.	Attempt all questions. Make suitable assumptions wherever necessary.	
Q.1	(a) (b)	Explain in detail the manufacturing of Silicone Resin. Write in brief synthesis of Epoxy Resin.	07 07
Q.2	(a)	Write a short note of raw materials used in the preparation of Saturated Polyesters resin.	07
	(b)	Write in short the curing system and application of unsaturated polyester resin. OR	07
	(b)	Describe in detail air inhibition and reaction mechanism of unsaturated polyester resin.	07
Q.3	(a) (b)	Write in detail the synthesis of novolacs based phenolic resin. Write in short the raw materials used for phenolic resin. OR	07 07
Q.3	(a)	Explain in short the history and also explain the modification of phenolic resin on the basis of rosin.	07
	(b)	Explain in detail the synthesis of resole based phenolic resin.	07
Q.4	(a)	Explain any four raw materials used in amino resin with proper structure and reactions.	07
	(b)	Describe the amino resin chemistry on the basis of methylol formation. OR	07
Q.4	(a)	Describe the amino resin chemistry on the basis of alkylation/ etherification reactions.	07
	(b)	Write in detail the history of amino resin and types of MF Resins used.	07
Q.5	(a) (b)	Explain in detail raw materials used in Alkyd Resin. What are silicones? Explain the characteristics and properties of silicone resin. OR	07 07
Q.5	(a)	Explain in short the vulcanization of rubber and also the cross linking technology.	07
	(b)	Give in detail the synthesis of low molecular mass/ liquid BPA- ECH epoxies of epoxy resin.	07
