Seat No.:	Enrolment No.
Deat 110	Enroument 110

GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER – I • EXAMINATION – WINTER • 2013

Subject code: 712401 Date: 23-12-2013

Subject Name: Plastics Materials

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)	Discuss in detail about Suspension Polymerization Technique.	07
	(b)	Write about the polymerization, structure and properties of UPVC	07
Q.2	(a)	Discuss in detail about Emulsion Polymerization Technique.	07
	(b)	Differentiate in between LDPE, HDPE, and LLDPE.	07
		OR	
	(b)	Write down the important properties and processing characteristics and applications of PEEK.	07
Q.3	(a)	Explain the properties and application of Poly Methyl Methacrylate (PMMA).	07
	(b)	What are the differences between Chain and Step Polymerization processes? OR	07
Q.3	(a)	Write down the important properties, processing characteristics and	
Q.5	(a)	applications of Polyacetal.	07
	(b)	Explain in details about structure property relationship of Teflon.	07
Q.4	(a)	What are "LCP" and "Conducting polymers"? Discuss in detail.	07
	(b)	How Polycarbonates are made and give its use?	07
	` /	OR	0,
Q.4	(a)	Explain the manufacturing process of Melamine Formaldehyde (MF) resin.	07
Q.4	(b)	Write down the hardening agent for Epoxy Resin and also explain the	0.5
		properties and applications of these cured resins.	07
Q.5	(a)	Explain the properties and applications of PPO.	07
	(b)	How styrene is made and describes the methods of producing Polystyrene (PS)?	07
	` '	OR	
Q.5	(a)	Write in details manufacturing process, properties and applications of PET.	07
	(b)	Why polyimide (PI) is called a high performance polymer? Give detailed	07
		properties and applications of polyimide.	07