Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII • EXAMINATION – WINTER 2013

, ,	Subje	ect Code: 172304 Date: 28-11-2013 ect Name: Manufacturing of Thermoplastics Materials : 10:30 TO 01:00 Total Marks: 70 etions:	
		 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a)	With a neat sketch of flow diagram, describe the emulsion process of manufacturing PVC. What are the main advantages and disadvantages of the process?	07
	(b)	Describe briefly the process of manufacturing PTFE. What are the special properties of PTFE compared to those of the other polymers?	07
Q.2	(a)	obtained; differentiate between the several types of polyethylene manufactured industrially.	07
	(b)	What are the sources for the monomer of polypropylene? Describe a commercial process for the manufacture of Isotactic- Polypropylene with a suitable flow diagram. OR	07
	(b)	What are the different grades of PS generally marketed? Discuss the properties of PS and its structure.	07
Q.3	(a)(b)	related to its properties. What are the important fields of application of PVC?	07 07
Q.3	(a)	OR What are the different forms of Polypropylene? Discuss the type of catalyst employed for the manufacture of polypropylene and properties of the three forms of the polymer.	07
	(b)	What are electro conducting polymers? List various electro conducting polymers and give their applications.	07
Q.4	(a) (b)	Explain liquid crystal polymers along with its properties and applications. Give structure of Polyether Ether Ketone (PEEK) and discuss its properties along	07
		with applications. OR	07
Q.4 Q.4	(a) (b)	Give properties and application of PVF and PVDF. Describe manufacturing of Polystyrene by Suspension Polymerisation with a suitable flow diagram. List various disadvantages of the process.	07 07
Q.5	(a) (b)	Give the chemical reaction by which styrene monomer can be prepared. Explain manufacturing of polycarbonate (PC) by interfacial polymerisation also mention its properties.	07 07
		OR	
Q.5	(a) (b)	How is nylon 6 prepared industrially? Giving a neat sketch of the flow diagram, describe the process. Mention important properties and uses of nylon 6. Write Short notes on i) Acrylonitrile Butadiene Styrene (ABS) and	07
		ii) Styrene Acrylonitrile (SAN)	07
