Seat No.:	Enrolment No.

Subject Code:172304

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII EXAMINATION - SUMMER 2016

Date:18/05/2016

Tir	ne:02	Attempt all questions.	70
	3.	Figures to the right indicate full marks.	
Q.1	(a)	What is PVC? Explain with neat sketch, the manufacturing of PVC Suspension grade polymerization process with properties with advantage & disadvantage and use of PVC for different application.	07
	(b)	Describe the manufacturing process of Polypropylene by Ziegler-Natta with diagram. Give its general properties, manufactures list with grades names.	07
Q.2	(a)	Describe the manufacturing of LLDPE & LDPE with all details in brief. Explain MW & MWD for this process.	07
	(b)	Discuss the application of polyvinlylidene chloride and polyvinyl acetate. OR	07
	(b)	How is ABS Prepared? Compare its properties & use with that of poly (styrene-co-acrylonitrile).	07
Q.3	(a)	Write a short on (i) Mass polymerization by Tower process for Styrenics. (ii) High impact polystyrene (HIPS). Explain a short note for EPS.	07
	(b)	Write a short note with plant layout of Nylon 6, 66 with general properties and application.	07
		OR	
Q.3	(a)	Describe the manufacturing of PTFE and state general properties & its uses. Explain in details derivatives of fluorinated polymerization.	07
	(b)	What are the conducting Polymers? Explain how polypyrole & polyacetylene used for solar cells.	07
Q.4	(a)	Write down the structure property of PEEK, PPO, PPS & PSU & their uses.	07
	(b)	Describe manufacturing of Polycarbonate? Explain the blend PC/ABS compatibility.	07
Q.4	(a)	OR Discuss the manufacturing of PET and state how the molecular weight of the	07
V. .	(4)	polymer controlled during its manufacture.	07
	(b)	Give the important copolymers of polyacetals? Write brief on them.	07
Q.5	(a) (b)	What is Ion-Exchange give its significance with properties and its use. What are electro conducting polymers? List various electro conducting polymers and give their application.	07 07
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Q.5	(a) (b)	Give the chemical reactions by which styrene monomer can be prepared. Name some fluorine containing polymers and give their molecular structure. What is the specific characteristic related to molecular structure	07 07
