Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-III EXAMINATION – WINTER 2015			
Su Ti	bject me: 2 tructio 1. 2.	Attempt all questions.	
Q.1	(a) (b)	Give classification of Polymer in detail. Compare: Thermoplastic with Thermoset	07 07
Q.2	(a) (b)	Explain about Initiator and Inhibitor Explain about Amorphous and Crystalline Polymer.  OR	07 07
	<b>(b)</b>	Define Glass Transition Temperature (Tg). Explain factors that influence the Tg of Polymer.	07
Q.3	(a) (b)	Which polymerization technique forms CMC? Explain in detail with diagram. Explain bulk polymerization technique along with advantages, disadvantages and applications.	07 07
Q.3	(a) (b)	OR List basic steps of Free radical polymerization reaction. Explain with example. Explain with suitable examples Hydrolysis and Acidolysis of polymers.	07 07
Q.4	(a) (b)	Explain about Tacticity in detail with suitable example.  Explain: (1) Tg and Plasticizer (2) Tg and Molecular weight  OR	07 07
Q.4	(a) (b)	Explain Addition Polymerization with examples.  Explain Condensation Polymerization with examples.	07 07
Q.5	(a) (b)	Explain cationic polymerization with suitable example.  Explain anionic polymerization with suitable example.  OR	07 07

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(a) Explain Gas phase polymerization in detail.

**(b)** Explain Solution polymerization in detail.

Q.5

**07** 

**07**