GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION - WINTER 2013

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(a) (b)	Discuss Theta temperature. What is its significance? Discuss factors Affecting Crystallinity	07 07
(a) (b)	Discuss Maxwell's model Discuss Gel Elution technique	07 07
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(b)	Discuss Boltzmann's superposition Principle	07
(a)	Draw Molecular Architectures For Linear, Branched, Crosslinked And Dendritic Conformations	07
(b)	Difference between polymers and low molecular weight compounds OR	07
(a)	Discuss Mark Houwink equation and its significance	07
(b)	What is intrinsic viscosity?	07
(a)	Explain the Flory Huggins Lattice theory	07
(a) (b)	What is Avogadro's number? If a PE molecule has 3000 nos.of monomers, each with a molar mass of 28 g/mol, calculate the weight of each molecule?	07
(a)	Discuss Fox- flory equation and its significance	07
(b)	Discuss Gaussian Distribution	07
(a)	1. polymer configuration v/s. polymer conformation. 2. Amorphous v/s. Crystalling polymers	07
(b)	* * *	07
	OR	97
(a)	Discuss RANDOM WALK Probability	07
(b)	Define: Mesogens; Rayleigh ratio; Intrinsic viscosity; entropy; nematic phase; radius of gyration; polymer fractionation	07
	ject : ject : 10	ject Name: Physics of Plastics e: 10.30 am - 01.00 pm
