Sea	ıt No.:	Enrolment No	Enrolment No		
		GUJARAT TECHNOLOGICAL UNIVERSITY	7		
		BE - SEMESTER-VI- EXAMINATION – SUMMER 2016			
Su	biect		Date:11/05/2016		
	U	Name: Thermoplastics Elastomers & Polymer Blends	11,00,2010		
	•	-	Marks: 70		
			Marks: 70		
IIIS	truction 1	Attempt all questions.			
		Make suitable assumptions wherever necessary.			
	3.	- · · · · · · · · · · · · · · · · · · ·			
Q. 1	Answer the following.		(14)		
	(i)	Define The term: (1) Thermoplastic Vulcanisate, (2) Hard Segment.			
	(ii)	Write the importance of Diisocynates in TPU Elastomer.			
	(iii)	Which are the future requirements of TPE?			
	(iv)	Give the advantages of Teleblock polymers.			
	(v)	List the important factors to determine the specialty Thermoplastic Elastomer compound.	2		
	(vi)	Describe the Vacuum Sizing method.			
	(vii)	List the name of Thermoplastic Elastomers which are produced by grafting reaction.			
Q. 2	(a)	Write the advantages and disadvantages of TPE vs. Conventional Rubbers.	(07)		
Q. 2	(b)	Explain the compounding, manufacturing process and properties of shoe sole products.	(07)		
		OR			
Q. 2	(b)	Discuss in detail about chemistry, compounding, properties and application of SEBS block polymers.	(07)		
0.3	(a)	Short note on: "ET Polymer Polyolefin Thermoplastic Elastomer"	(07)		

Explain in detail about unusual industrial application of polyester TPE. (07)**(b)** Q. 3 Discuss on thermal and chemical properties of Polyolefin (a) (07)Thermoplastic Elastomer. **(b)** List out the Environmental properties for Polyester Thermoplastic (07)Elastomers. Explain any two in detail. Q. 4 Explain any seven characteristics of Thermoplastic Polyurethane (07)(a) Elastomers. Short note on: "Ethylene Ethyl Acetate Copolymers". **(b)** (07)OR Q. 4 Describe in detail about the Chemistry of Thermoplastic Polyurethane (a) (07)(TPU). Explain in detail about Silicone - Polyethylene blends. (07)**(b)**P.T.O.....

Discuss in detail about Blending methods for TPE.

(07)

Q. 5

(a)

	(b)	Discuss in detail about Structure-property relationship of NBR/PVC	(07)
		Blends.	
		OR	
Q. 5	(a)	Write a note on Specific applications: "Adhesives of Styrene TPEs".	(07)
	(b)	Write in detail about blends of Polyesters with PVC.	(07)
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