Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2163606 Date:21/05/2019

Subject Name:Compounding & Processing of Plastics & Rubbers-II

Time:10:30 AM TO 01:00 PM Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

			MARKS
Q.1	**(a)**	Write general note on different vulcanization systems for Rubbers	**03**
	(b)	.Write a note on side wall compound recipe for Bias Ply tyre.	**04**
	(c)	Write a detailed note on rubber compounding.	**07**
Q.2	**(a)**	Write a note on Latex/ZnO nanocomposites.	**03**
	(b)	Write a detailed compounding for Rickshaw Tyres.	**04**
	(c)	Write a detailed note of Sulphur Vulcanization. Explain	**07**
		OR	
	(c)	Write a detailed compounding recipe of Bias Ply Tyre Tread.	**07**
Q.3	**(a)**	Explain the basic concept of polymer Rheology	**03**
	(b)	Write a note on blending of NBR and PVC. Explain the advantages of NBR/PVC Blends.	**04**
	(c)	Write a note on Metallization on Plastics and explain process with the help of diagram.	**07**
		OR	
Q.3	**(a)**	Write a note on preparation of High Impact Polystyrene.	**03**
	(b)	Write a note on IPN blends.	**04**
	(c)	Write a note on Fiber reinforced plastics(FRP) and their applications.	**07**
Q.4	**(a)**	Write a note on Optical Brightener (OB).	**03**
	(b)	Write a note on different types of Polyblends.	**04**
	(c)	Write detailed note of Peroxide vulcanization.	**07**
		OR	
Q.4	**(a)**	Write a note on Plasticizers used in Rubber compounding.	**03**
	(b)	Write about manufacturing of ABS/PC alloys ant their applications.	**04**
	(c)	Write a detailed note on Polymer Blending Methods and Equipment used.	**07**
Q.5	**(a)**	Explain Microwave vulcanization system with the help of diagram.	**03**
	(b)	Write a note on FR systems for Polymer Applications.	**04**
	(c)	Write a detailed note on Electroplating on Plastics with examples and its advantages.	**07**
		OR	
Q.5	**(a)**	Write a note of Peroxide vulcanization.	**03**
	(b)	Write a note on Processing aids used in Polymer compounding with Examples.	**04**
	(c)	Write a note on PVC/CaC03 nanocomposites. Highlight advantages of using nano CaCO3.	**07**

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