

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		
Q.3	(c) Write a detailed compounding recipe of Bias Ply Tyre Tread.	07
	(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
