		GUJARAT TECHNOLOGICAL UNIVERSITY		
		ME – SEMESTER IV (NEW) – • EXAMINATION – SUMMER 20	16	
J			4/05/2016	
•		Name: Powder & Particulate Rubber Technology		
			Marks: 70	
Instru		s: Attempt all questions.		
	2.	Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q. 1	(a)	Explain the effect of various types of partitioning agents on properties of different types of Rubbers.	s (07)	
	(b)	Short note on Cryogenic Grinding.	(07)	
Q. 2	(a)	Name the equipment used for compounding of powdered rubber. Write about its geometry and processing.	(07)	
	(b)	List the various methods to measure the degree of dispersion for powdered rubber product. Explain about any one in detail. OR	(07)	
Q. 2	(b)	Draw the schematic diagram of apparatus for the dust assessment in solid rubber chemicals and explain the test procedure.	(07)	
Q. 3		Discuss about stage wise developments in Direct powder Extrusion system.	(14)	
		OR		
Q. 3		Draw the diagram showing screw design for following types of extruder and write its function also. (i) NRM Plastiscrew Extruder (ii) Pirelli Extruder (iii) Transfer Mix Extruder	f (14)	
Q. 4	(a)		(07)	
	(b)	Describe the advantage of powdered rubber in Adhesives and Doughs preparation.	6 (07)	
		OR		
Q. 4	(a)	rubber technology? Explain it.	,	
	(b)	all in detail.	,	
Q. 5		"Powdered rubber technology is more economical route than Bale rubber technology." Justify the statement. OR	(14)	
Q. 5		Discuss in detail about effect of powdered rubber technology or following processing parameters: (i) Mixing cycle time (ii) Power consumption (iii) Plant maintenance cost	ı (14)	

Enrolment No._____

Seat No.: _____