Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY ME SEMESTER II EXAMINATION – SUMMER 2017

	Subj	ect Code: 2722405 Date:25/05/2	te:25/05/2017	
	Time:02:30 PM to 05:00 PM Total M Instructions:		arks: 70	
		 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 		
Q.1	(a)	Discuss preparation of Epoxy resin and its curing reaction. Give its advantages over other resin.	07	
	(b)	Explain manufacturing of Glass fiber with flow diagram. List various advantages and disadvantages of glass fibers.	07	
Q.2	(a) (b)	Explain Vacuum bag molding process with neat and advantages. Explain Carbon fiber preparation methods with neat sketch.	07 07	
		OR		
	(b)	How to determine Gel-time? Explain.	07	
Q.3	(a)	Write about: (i) Catalysts (ii) Accelerators.	07	
C	(b)	Discuss Resin transfer molding process along with advantages and applications. OR	07	
Q.3	(a)	With neat diagram explain Sheet molding compounds (SMC) process.	07	
C	(b)	Define Composites. What are role of matrix and reinforcement? List various advantages and disadvantages of composites.	07	
Q.4	(a)	Give various glycols and acids used to manufacture Unsaturated polyester resin. Discuss curing reaction of unsaturated polyester resin.	07	
	(b)	Describe Ultrasonic test method for non-destructive testing of composites. OR	07	
Q.4	(a)	Which process is used to prepare profiles? Discuss with neat diagram.	07	
	(b)	Write a note on: (i) Aramid fibers (ii) Vinyl ester resin.	07	
Q.5	(a)	Explain test method for determination of tensile strength of FRP sample.	07	
	(b)	Write a note on: (i) Natural fibers (ii) Fillers for composites.	07	
		OR		
Q.5	(a)	Describe Filament winding process with neat sketch and give its applications.	07	
	(b)	Describe Acousto-Ultrasonic test method for non-destructive testing of composites.	07	
