Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY BE – SEMESTER-VI • EXAMINATION – SUMMER- 2015

Subject Code: 163406 Subject Name: Composite Technology Time: 10.30am-01.00pm Instructions:  Date: 18/0 Total Ma			Date: 18/05/2015	
		:ks: 70		
	1. 2.	Attempt all questions.		
Q.1	(a) (b)	What are composites? Give advantages and disadvantages of composites Explain about phenolic and vinyl ester resins with its applications	07 07	
Q.2	(a) (b)	Explain the production of carbon fibers with the support of a neat sketch Discuss about graphite fibers and polyethylene fibers with its advantages and disadvantages	07 07	
	<b>(b)</b>	<b>OR</b> What is the role of accelerators? Give detail description on various accelerators used in resin system	07	
Q.3	(a) (b)	Explain BMC and TMC with neat sketches along with its applications Discuss the various additives of composites  OR	07 07	
Q.3	(a) (b)	Explain briefly about hand layup and spray up processes with suitable sketches Explain SMC and DMC processes with suitable sketches	07 07	
Q.4	(a) (b)	Explain vaccum bag and pressure bag moulding with suitable sketches Briefly explain the working of centrifugal casting with necessary illustrations OR	07 07	
Q.4	(a) (b)	Explain resin transfer moulding with a suitable sketch Explain manufacturing of Unsaturated polyester resin used as matrix in composites	07 07	
Q.5	(a)	What is meant by pultrusion? Explain the process of working involved in pultrusion	07	
	<b>(b)</b>	Explain briefly the determination of shelf life and gel time  OR	07	
Q.5	(a) (b)	Describe ultrasonic testing method for non destructive testing of composites Give various applications of FRP products in the fields of chemicals, railways and electrical and electronic industries	07 07	

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