Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY

	bject	code: 3335503 Date: 24-06-2014	
Ti	•	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	List different properties of material and explain technological properties Explain effect of different alloying element on properties of steel.	07 07
Q.2	(a) (b)	What is stainless steel? List different types of S.S Explain chemical composition, properties and application of any one. Write brief note on H.S.L.A. steel. OR	07
	(b)	Explain properties and application of Aluminum.	07
Q.3	(a) (b)	Explain properties and application of Nickel. Explain different material and their requirement for high temperature service. Write applications where high temperature service material required. OR	07 07
Q.3	(a) (b)	Write properties and application of Glass. Write properties and application of Elastomer.	07 07
Q.4	(a) (b)	Write properties and applications of plastic. Explain SC, BCC, FCC, HCP, crystal structure of metal With neat sketch OR	07 07
Q. 4	(a) (b)	Draw neat sketch of IC diagram and write three important reactions. Draw neat sketch of TTT diagram.	07 07
Q.5	(a) (b)	Explain metallurgical microscope with neat sketch. Explain effect of grain size on mechanical properties of metal. OR	07 07
Q.5	(a) (b)	Define the "heat treatment process", classify it and explain purpose of heat treatment. Explain Material Test Certificate (MTC)	07
