GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-IV • EXAMINATION – WINTER 2013

		Code: 142104 Date: 30-12-2013 Name: Metallurgy for Non Metallurgist	
Time	: 02	2:30 pm to 05:00 pm Total Marks: 70	
Instruc	1. 2.		
Q.1	(a) (b)		07 07
Q.2	(a) (b)	corrosion prevention. Write a brief note on Aluminum alloys as a candidate material for automobile	07 07
		sector. OR	
	(b)		07
Q.3	(a) (b)		07 07
Q.3	(a)	Explain effect of Carbon, Chromium and Nickel as alloying elements on the	07
	(b)	properties of steel. Define heat treatment. List various heat treatment processes and discuss any one.	07
Q.4	(a)	What is cast iron? Give the properties, applications and microstructure of nodular cast iron.	07
	(b)		07
Q.4	(a)	Define casting. Describe Sand casting method.	07
Q.4	(b)	What is rolling? Write in detailed about types of rolling mills.	07
Q.5	(a)	What is Welding? Write different types of welding processes and explain Submerged Arc Welding.	07
	(b)	Enlist various NDT methods and discuss Dye-penetrant testing.	07
Q.5	(a) (b)		07 07
