CAN	T 1 ANT
Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER – V (NEW) EXAMINATION – WINTER 2015

Ti	me:1	0:30am to 1:00pm Total Marks:	70	
Subject Name: Steel Making Time: 10:30am to 1:00pm Instructions:			Total Marks: 70	
	2.			
Q.1	(a)	What is the main Principle of Steel Making & also With the help of schematic show different routes of steelmaking?	07	
	(b)	Explain in detail Heat Sequence of the LD Process with suitable sketch.	07	
Q.2	(a)	What is oxygen lance? Explain construction & working principle of single nozzle oxygen lance with neat sketch.	07	
	(b)	With a neat sketch explain various parts of the Electric Arc Furnace (EAF). OR	07	
	(b)	List the advantages and disadvantages of top and bottom blown processes.	07	
Q.3	(a)	(i) Compare LD process & LD-AC process	03	
	(b)	(ii) Briefly explain the Refractory lining used in BOF. Explain Dephosphurization & Desulphurization in steel making. OR	04 07	
Q.3	(a) (b)	Explain the Steel Making by Kaldo Process. What are the sources of oxygen, nitrogen and hydrogen in steel? What measures are taken to control their contents?	07 07	
Q.4	(a) (b)	Explain Laddle Refining process & its uses. Explain briefly AOD and VOD processes. OR	07 07	
Q.4	(a) (b)	Explain the salient points of VAR and ESR processes. Explain: Reaction at slag metal interface.	07 07	
Q.5	(a)	List Design Improvements in modern EAF practice. Discuss briefly about UHP arc furnaces.	07	
	(b)	What do you mean by inclusion? & What are the effects of inclusions on mechanical properties of steel.	07	
Q.5	(a) (b)	OR List the types of Continuous-Casting (C.C.) machines and explain any one. List the defects in Con-cast products & Discuss briefly about Near Net Shape casting.	07 07	
