C ANT	E 1 AN
Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER- IV(NEW) EXAMINATION - SUMMER 2015

Subject code:2142107		code:2142107 Date05/06/	Date05/06/2015	
Subj	ect 1	Name: Iron Making		
Time	e: 10	0:30am-1.00pm Total Mar	ks: 70	
Instr	ucti	ons:		
	2.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.		
Q.1	(a)	What are different raw materials of Iron Making? Discuss their	02 +05	
	(b)	evaluation What is the role of coke and limestone in iron making? Explain	07	
Q.2	(a) (b)		07 07	
		OR		
	<b>(b)</b>	Discuss about Indian iron ores.	07	
Q.3	(a) (b)		02 + 05 $02 + 05$	
		OR		
Q.3	(a)	What is basicity? Discuss importance of maintaining basicity in Iron making.	02 + 05	
<b>(b</b> )	<b>(b)</b>	What are different refractory material used in different zones of blast furnace&Cowper stove? Justify them.	07	
Q.4	(a)	List the factors affecting charge distribution in blast furnace. Discuss any two.	03 + 04	
	<b>(b)</b>		03+ 02+ 02	
		OR	<b>0</b> _	
Q.4	(a)	Discuss blast furnace reactions in- Stack, Tuyere, Bosh and Hearth region	07	
	(b)	Phosphorisation in Blast furnace.	07	
Q.5	(a)	Iron making.	07	
	<b>(b)</b>	What is humidification of blast in iron making? Discuss its advantages  OR	04+03	
Q.5	(a)		02 + 05	
<b>V.</b>	(b)	Midrex process. What are irregularities in blast furnace operations? Briefly discuss	07	
		them with suggestive remedies.		