Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

Ç,	ıbioo	BE - SEMESTER-V (OLD) - EXAMINATION – SUMMER 2017 et Code: 152101 Date: 08/05/20	117
	•		J1 /
Ti	ime:	et Name: Iron Making 02:30 PM to 05:00 PM Total Marks:	70
In	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Draw neat sketch of blast furnace and label it properly. Give chemical reactions occurring in different parts of blast furnace. What do you mean by sintering? Explain sintering process in detail.	07 07
Q.2	(a) (b)	List major iron and steel plants in india and briefly give history of iron making. What are different charging mechanisms of blast furnace? With neat sketch explain any one.	07 07
		OR	
	(b)	Write note on hangining.	07
Q.3	(a) (b)	What is RAFT? Write short note on it. What are the property requirements of burden for smooth operation of blast furnace?	07 07
		OR	
Q.3	(a) (b)	List the factors affecting valuation of iron ore and discuss them. What are different methods of blast furnace gas cleaning? Briefly explain electrostatic precipitator (ESP).	07 07
Q.4	(a) (b)	What is pelletization? Explain the theory of bonding in pelletization process. What are blast furnace operations? Explain blowing-in. OR	07 07
Q.4	(a) (b)	Discuss pulverized coal injection and high blast temperature in blast furnace. Discuss the conditions of effective desiliconization and dephosphorizsation in Blast furnace.	07 07
Q.5	(a) (b)	Discuss blast humidification and high top pressure in blast furnace. What are uses of blast furnace gas? Explain blast furnace stove. OR	07 07
Q.5	(a)	List the different refractory used in blast furnace and discuss the choice of refractory in hearth.	07
	(b)	List alternative methods of iron production and explain mini blast furnace.	07
