Seat No.:	Enrolment No.

		GUJARAT TECHNOLOGICAL UNIVERSITY	
Su	bjec	BE - SEMESTER-VIII (NEW) - EXAMINATION – SUMMER 2017 t Code: 2182202 Date: 02/05/20	17
Ti	U	t Name: Advance Mining Methods 10:30 AM to 01:00 PM Total Marks:	70
IIIS	1 2	 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a) (b)	Describe principles of operation and design of power support with neat sketch. Explain selection of powered support in brief.	07 07
Q.2	(a) (b)	Explain problems of mining thick coal seams. Explain horizon mining methods with neat sketch. OR	07 07
	(b)	Write different application, merits and demerits of Horizon Mining.	07
Q.3	(a) (b)	Explain hydraulic mining in brief. What do you mean by underground coal gasification? Explain factors affecting underground coal gasification.	07 07
Q.3	(a) (b)	OR Discuss factor affecting choice of methods for thick coal seam mining. Explain general consideration before adopting horizon mining.	07 07
Q.4	(a) (b)	Explain problems of mining thin coal seams. Write advantages and disadvantages of underground coal gasification. OR	07 07
Q.4	(a) (b)	List out various methods for thin seam extraction. Explain any one in brief. Explain support system of longwall faces and depillaring.	07 07
Q.5	(a) (b)	Describe different advantage and disadvantage of Hydraulic Mining. Explain hydro-chemical and biochemical methods of mining. OR	07 07
Q.5		Write a note on ore mining by leaching. Explain deep-sea mining for manganese nodules.	07 07
