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

Subject Code: 142201 Date: 19-12-2		t Code: 142201 Date: 19-12-2013	013	
	•	t Name: Mine Machinery-I 02:30 pm to 05:00 pm Total Marks: 70		
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		 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 		
Q.1	(a)	What are the main parameters that are to be taken care in distribution of compressed air?	07	
	(b)	State the reasons for not using aerial ropeways in o/c mine.	07	
Q.2	(a) (b)	What is conveyor haulage? Explain its types and construction. What are the criteria for selection of wire ropes?	07 07	
	(b)	OR Describe various attachments of Mine tubs and cars.	07	
Q.3	(a) (b)	Describe various parameters affecting selection of wire rope in brief. What are different rope splicing methods? Explain them. OR	07 07	
Q.3	(a) (b)	What are the advantages of conveyor haulage over aerial rope ways system? Explain the types of wire ropes and their construction.	07 07	
Q.4	(a) (b)	Explain the construction of mine tubs and cars. What are the methods of transportation in mining? OR	07 07	
Q.4	(a) (b)	What are different mine locomotives and explain their construction. What is the need of exhaust trap in diesel locomotive?	07 07	
Q.5	(a)	 Write note on any two:- 1. Mono cable aerial rope way. 2. Recapping of winding rope. 3. Coned-Socket type capel. 4. Low profile dumpers. 	14	
