| Seat No.: | Enrolment No. |
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION – SUMMER 2013

| Subj | ect C | ode: 162204 Date: 29-05-2013 | 3 | |
|--|------------|--|-----------------|--|
| Subject Name: Mine Hazards Time: 10.30 am - 01.00 pm Instructions: | | 30 am - 01.00 pm Total Marks: 70 | Total Marks: 70 | |
| | 2. N | ttempt all questions. Take suitable assumptions wherever necessary. Sigures to the right indicate full marks. | | |
| Q.1 | (a) | What do you mean by spontaneous heating? Give the factor affecting spontaneous heating of coal. | 07 | |
| | (b) | Write short note on fire fighting organisation. | 07 | |
| Q.2 | (a) (b) | Explain dust sampling apparatus with their construction & application. Write short note on coal dust explosion & its prevention. OR | 07 07 | |
| | (b) | Describe the water blast danger & its prevention. | 07 | |
| Q.3 | (a) (b) | Briefly discuss about the any two rescue equipment used in Indian mines. Discuss about the problem of radiation in atomic mineral mines. | 07 07 | |
| | | OR | | |
| Q.3 | (a) | Explain the role of rescue station & their recovery work in case of any emergency. | 07 | |
| | (b) | Write short note on dust formation, danger & its prevention. | 07 | |
| Q.4 | (a) (b) | Explain causes of mine inundation & various precautionary measures. What is fire damp explosion? What is a limit of explosibility of fire damp? OR | 07 07 | |
| Q.4 | (a) (b) | Explain in brief the causes & preventive measures of accidental fires. Describe the design & construction of water dams. | 07 07 | |
| Q.5 | (a) (b) | Write short note on different methods of reopening of mines. Define stone dust barriers and its application in mines. OR | 07 07 | |
| Q.5 | (a) (b) | Describe the detection of mines fire by practical and scientific methods. Describe various factors affecting relative inflammability of coal dust. | 07 07 | |
