

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- VIth SEMESTER-EXAMINATION – MAY- 2012

Subject code: 162204

Date: 17/05/2012

Subject Name: Mine Hazards

Time: 10:30 am – 01:00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain dust sampling apparatus & their construction. **07**
(b) Describe with figure : Different methods of reopening **07**
- Q.2** (a) What are various preventive measures to dealing with under ground mine fires? **07**
(b) Various problems of radiation in mines of atomic mineral **07**
- OR**
- (b) Explain any two rescue equipments. **07**
- Q.3** (a) Explain rescue and recovery work in connection with mine explosion in u/g mine. **07**
(b) Describe role of rescue station and organization of rescue station. **07**
- OR**
- Q.3** (a) What are Various steps involved in recovery of flooded mines. **07**
(b) Steps involved in construction of water dams . **07**
- Q.4** (a) Explain : (1) Methane layering , (2) water blast **07**
(b) Explain burn side boring apparatus. **07**
- OR**
- Q.4** (a) Explain : (1) Coal dust explosion , (2) Spontaneous combustion **07**
(b) What are physical and chemical characteristic of coal liable to spontaneous heating? **07**
- Q.5** (a) What you mean by Fire fighting organization? **07**
(b) Explain sources of initiation of fire damp explosion. **07**
- OR**
- Q.5** (a) Describe various factors affecting relative inflammability of coal dust. **07**
(b) Explain water blast dangers and precaution to avoid it in mines. **07**
