

GUJARAT TECHNOLOGICAL UNIVERSITY**BE SEM-VI Regular Examination May 2011****Subject code: 162204****Subject Name: Mine Hazards****Date: 21-05-2011****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 construction dust sampling apparatus and application. **07**
(b) Problems of radiation in atomic mineral mines. **07**

- Q.2** (a) Explain any three rescue equipments used in Indian mines. **07**
(b) Explain causes of mine inundation & various precautionary measures. **07**

OR

- (b) Describe types, causes of explosions and preventive measure **07**

- Q.3** (a) Explain water treatment & stone dust and dusting method used in under ground mines to prevent damage. **07**
(b) what Precautions are to be taken while working approaching near old workings. **07**

OR

- Q.3** (a) Explain with figure design and construction of water dams. **07**
(b) What is mean by water blast dangers? describe various precautions to avoid water blast. **07**

- Q.4** (a) working of burn side boring apparatus. **07**
(b) Describe Rescue station & role of Rescue Station in recovery work in cases of mine fire. **07**

OR

- Q.4** (a) what is fire damp explosion? What is limits of explosibility of fire damp? **07**
(b) Define : [1] spontaneous combustion [2] Coal dust explosion **07**

- Q.5** (a) Physical and chemical characteristics of coal liable to spontaneous heating. **07**
(b) What do you mean by fire fighting organization? **07**

OR

- Q.5** (a) What are the practical & scientific method of detection of u/g fire or spontaneous heating? **07**
(b) explain various steps of recovery of flooded mines. **07**
