

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2016**

**Subject Code:2162204**

**Date:09/05/2016**

**Subject Name: Mine Hazards**

**Time: 10:30 AM to 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) What are the different causes of mine fires? **07**  
(b) What is spontaneous combustion? How it can be detected? **07**
- Q.2** (a) What are the preventive measures of underground fires? **07**  
(b) What are various methods of reopening mines? **07**
- OR**
- (b) Explain various methods of fire fighting. **07**
- Q.3** (a) How dust formation happens in mines? How to prevent it? **07**  
(b) Explain the dust sampling apparatus with diagram. **07**
- OR**
- Q.3** (a) What are the causes of fore damp explosion? **07**  
(b) What are the factors that affect the inflammability in coal dust explosion? **07**
- Q.4** (a) What are the measures can be taken in water gas explosion? **07**  
(b) How can problem of radiation in atomic mineral mines be reduced? **07**
- OR**
- Q.4** (a) Explain different types of rescue equipment in brief. **07**  
(b) How is recovery carried out in case of explosion? **07**
- Q.5** Write short note on any two : **14**
1. Causes of mine inundation.
  2. Design and construction of water dam in mining.
  3. Burnside boring apparatus.
  4. Fire fighting organization.

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