

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE – SEMESTER – VIII. EXAMINATION – WINTER 2016**

**Subject Code: 182202****Date: 20/10/2016****Subject Name: Advance mining Methods****Time: 02:30 PM to 05:00 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) Write note on power support with their principle, operation and design. **07**  
(b) Explain Horizon mining methods with sketch also write their advantages. **07**
- Q.2** (a) Explain past and present status of Mining Industries. **07**  
(b) Describe precautions to be taken working liable to spontaneous heating. **07**
- OR**
- (b) Explain problems in mining in thin seams. **07**
- Q.3** (a) Write advantage and disadvantage of Hydraulic Mining. **07**  
(b) Explain Auger Mining methods in detail. **07**
- OR**
- Q.3** (a) Write the basic principle of hydraulic mining also add note on their plans, layouts and operation. **07**  
(b) What are the recent developments in Under Ground Metal mining? Describe it. **07**
- Q.4** (a) Explain ore mining by leaching. **07**  
(b) Define Underground Coal Gasification. Add note on its application. **07**
- OR**
- Q.4** (a) Explain different problems in deep mining. **07**  
(b) Describe basic concept of Underwater mining. **07**
- Q.5** (a) List out various types of coal and explain it all. **07**  
(b) Explain special methods of mining in brief. **07**
- OR**
- Q.5** (a) Write note on thick seam mining. **07**  
(b) Explain Hydro chemical and Bio chemical methods of mining. **07**

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