

GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER-8TH old EXAMINATION- WINTER 2017

Subject Code:182202**Date:02/11/2017****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 the advantages of Hydraulic mining. **07**
(b) Explain precaution to be taken while working of seams under river and water lodgments. **07**
- Q.2** (a) Describe principles of operation and design of Powered supports. **07**
(b) Write short note [1] ore mining by leaching. **07**
- OR**
- (b) Explain precautions to be taken while working of seams liable to spontaneous heating. **07**
- Q.3** (a) What are the recent developments in underground metal mining? **07**
(b) Describe Horizon mining method with neat sketch & its advantages. **07**
- OR**
- Q.3** (a) List out factor affecting underground coal gasification. Explain basic principles of underground coal gasification with layouts. **07**
(b) Explain hydro-chemical and biochemical methods of mining. **07**
- Q.4** (a) Explain support system of wide excavations of long wall depillaring faces. **07**
(b) What are the problems of deep mining? Explain its remedial measures. **07**
- OR**
- Q.4** (a) Explain Auger mining method. **07**
(b) Explain problems in mining of thin seams. **07**
- Q.5** (a) List out various types of coal and explain about them. **07**
(b) Explain past and present status of Mining Industries. **07**
- OR**
- Q.5** (a) Explain Shield Support with their construction features and application. **07**
(b) Explain Chock Shield Support with their construction features and application. **07**
