

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2014

Subject Code: 182202**Date: 31-05-2014****Subject Name: Advance Mining Method****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) Describe principles of operation and design of powered supports **07**
(b) Explain precautions to be taken while working of seams liable to spontaneous heating. **07**
- Q.2** (a) Explain Auger mining method with panel layout for thin seam deposit. **07**
(b) Explain present status of Underwater/Sea-bed mining in mining industries and write a Company of underwater mining. **07**
- OR**
- (b) Describe Horizon mining method with neat sketch & its advantages. **07**
- Q.3** (a) List out factor affecting underground coal gasification. Explain basic principles of under-ground coal gasification with layouts. **07**
(b) Elaborate the advantages of Hydraulic mining. **07**
- OR**
- Q.3** (a) What is basic principle of Hydraulic mining? Explain its plants-layouts and operation. **07**
(b) Explain support system of wide excavations of long wall depillaring faces. **07**
- Q.4** (a) Describe problems in mining of thin seams. **07**
(b) Describe with sketch: design and layout of stopes in rock burst prone mine **07**
- OR**
- Q.4** (a) Explain precaution to be taken while working of seams under river and water lodgments. **07**
Q.4 (b) What are the various methods for thin seam extraction? Explain any one of them. **07**
- Q.5** (a) What are the problems of deep mining? Explain its remedial measures. **07**
(b) What are the recent developments in underground metal mining? **07**
- OR**
- Q.5** (a) Explain hydro-chemical and biochemical methods of mining. **07**
(b) Write short note on ore mining by leaching. **07**
