

GUJARAT TECHNOLOGICAL UNIVERSITY**BE SEM-VIII Examination May 2012****Subject code: 182202****Subject Name: Advance Mining Methods****Date: 12/05/2012****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) Describe horizon mining method with sketch. Also explain advantages of horizon mining as compare to other methods of mining. , **07**
(b) Describe principles of operation and design of Powered supports. **07**
- Q.2** (a) What do you mean by Under water / sea –bed mining? Explain its past and present status in mining industry. **07**
(b) Explain precautions to be taken while working of seams liable to spontaneous heating. **07**
- OR**
- (b) Describe support system of wide excavations of long wall depillaring faces. **07**
- Q.3** (a) What is the basic principle of under ground coal gasification? Explain its Plant - layouts and operation. **07**
(b) Explain problems in mining of thin seams. **07**
- OR**
- Q.3** (a) Which are the various methods for thin seam extraction? explain any one of them. **07**
(b) Advantages of Hydraulic mining. **07**
- Q.4** (a) What are the problems of deep mining? Explain its remedial measures. **07**
(b) Explain precaution to be taken while working of seams under river and water lodgments? **07**
- OR**
- Q.4** (a) Explain problems in thick seam mining. Explain Blasting gallery technique for thick seam extraction. **07**
(b) Explain hydro-chemical and biochemical methods of mining. **07**
- Q.5** (a) Describe with sketch : design and layout of stopes in rock burst prone mine . **07**
(b) Write short note [1] ore mining by leaching. **07**
- OR**
- Q.5** (a) What are the recent developments in under ground metal mining ? **07**
(b) Write short note [1] Winning of Manganese nodules from ocean floor. **07**
