

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – WINTER • 2014****Subject Code: 142202****Date: 29-12-2014****Subject Name: Basic Mine Surveying****Time: 02:30 pm - 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) What is Theodolite? Describe various uses of theodolite in mine surveying. **07**
Explain why a theodolite more accurate than other instruments.
- (b) What are the uses of miner's dial? Give the tests and adjustments of it. **07**
- Q.2** (a) Describe the various methods of tachometric survey **07**
(b) Describe various uses of theodolite in mine surveying. Explain why the Theodolite is more accurate than other instruments. **07**
- OR**
- (b) What is closing error? Write a note on Bowditch's rule. **07**
- Q.3** (a) Define leveling? What are the principle and object of leveling? **07**
(b) What are the contour lines? Give uses of contour lines on mine plans **07**
- OR**
- Q.3** (a) Write a short note on shaft depth measurement by leveling with neat sketch **07**
(b) What are the contour lines? Write the notes on contouring on flat and steep grounds. **07**
- Q.4** (a) Give classification of leveling. Add a note on fly leveling. **07**
(b) Explain Shaft depth measurement employing a plumb wire **07**
- OR**
- Q.4** (a) Explain in brief method of Subsidence measurement. **07**
(b) Give classification of triangulation system. List out various methods are used for balancing the traverse? Explain any two in brief. **07**
- Q.5** (a) Define contouring. Write a note on contouring on flat ground. **07**
(b) Differentiate between Tubular and through compass. **07**
- OR**
- Q.5** (a) What is Triangulation method? What are the classifications of the triangulation Survey? **07**
(b) Explain Repetition method of horizontal angle measurement. **07**
