

GUJARAT TECHNOLOGICAL UNIVERSITY**Subject code: 142202****Subject Name: Basic Mine Surveying****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 contouring? Explain the interpolation method of contouring. **07**
(b) What is closing error? Write a note on bowditch's rule. **07**
- Q.2** (a) What is leveling? Write a note on dumpy level **07**
(b) Write a note on miner's dial with a neat sketch **07**
- OR**
- (b) Give the uses and adjustments of miner's dial **07**
- Q.3** (a) Write down the characteristics of contours **07**
(b) Write a note on tubular and trough compass **07**
- OR**
- Q.3** (a) Write a note on contouring on flat ground **07**
(b) Explain the procedure of measurement of horizontal angle by theodolite **07**
- Q.4** (a) Give the basic concept of triangulation surveying **07**
(b) Explain shaft depth measurement employing a plumb wire **07**
- OR**
- Q.4** (a) Write a note on types of tacheometry **07**
(b) Write a note on fly leveling **07**
- Q.5** (a) What is a procedure of determination of constants by tacheometric surveying **07**
(b) Explain the leveling by subsidence survey **07**
- OR**
- Q.5** (a) What are the purposes of traverses? Add a note on precision of theodolite traversing **07**
(b) Give the temporary adjustments of theodolite **07**
