

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– IV (New) EXAMINATION – WINTER 2019****Subject Code: 2142202****Date: 13/12/2019****Subject Name: Basic Mine Surveying****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.

		MARKS
Q.1	(a) Write short note on prismatic compass.	03
	(b) Write a short note on general procedure for field work.	04
	(c) Explain balancing of traverse by Bowditch rule.	07
Q.2	(a) Define the terms: (1) Transiting (2) Northing (3) Face left.	03
	(b) Describe the procedure of omitted measurements of traversing.	04
	(c) Draw a neat sketch of vernier theodolite and name its various parts.	07
OR		
	(c) Explain the repetition and reiteration methods of measuring angles.	07
Q.3	(a) Describe theodolite traversing.	03
	(b) Write a note on shaft depth measurement by leveling.	04
	(c) Explain various Leveling instruments.	07
OR		
Q.3	(a) Describe additive and multiplying constants.	03
	(b) Write short notes on: (1) Ramsden Eye-piece (2) diagonal Eye-piece.	04
	(c) Describe the construction of Miners Dial with sketch.	07
Q.4	(a) Write down the characteristics of contours.	03
	(b) What are the sources of errors in theodolite observations?	04
	(c) What is Triangulation method? What are the classifications of the triangulation survey?	07
OR		
Q.4	(a) Write a note on fly leveling.	03
	(b) Write short note on temporary adjustments of theodolite.	04
	(c) Describe the procedure of tacheometry survey project you have done on field.	07
Q.5	(a) Write a note on Gyro – theodolite.	03
	(b) Describe measurement of Horizontal angle with theodolite in detail.	04
	(c) Write a note on underground leveling and subsidence survey.	07
OR		
Q.5	(a) Write a short note on Interpolation of contours.	03
	(b) Explain the Line of Collimation.	04
	(c) Write the principle and use of tachometry surveying.	07
