

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV(NEW) – EXAMINATION – SUMMER 2019****Subject Code:2142202****Date:17/05/2019****Subject Name: Basic Mine Surveying****Time:02:30 PM TO 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.

		MARKS
Q.1	(a) What are the fundamental lines of a theodolite?	03
	(b) Write a note on dumpy level.	04
	(c) Describe construction and various uses of Miners dial.	07
Q.2	(a) What is the method of base line measurement?	03
	(b) Differentiate between external focusing and internal focusing telescope.	04
	(c) Explain the procedure of the leveling to establish underground bench mark.	07
OR		
	(c) List out various types of Theodolite. Explain any one of them in brief with neat sketch.	07
Q.3	(a) Give the use of prismatic compass.	03
	(b) Write a note on Omitted measurement.	04
	(c) Describe closing error and it's adjustment.	07
OR		
Q.3	(a) Write the types of errors in dial surveying.	03
	(b) Write note on Characteristics of contours.	04
	(c) Write principle of tacheometric surveying. Explain additive and Multiplying constants.	07
Q.4	(a) Give the name of types of levels according to their general arrangement.	03
	(b) Explain test and adjustments of Miners dial.	04
	(c) Write a note on measurement of Horizontal Angles and Vertical Angles.	07
OR		
Q.4	(a) Write any two aims of subsidence measurements.	03
	(b) Explain tubular compass with neat sketch.	04
	(c) What is surveying? Give basic principle of surveying and name all the instruments used for it.	07
Q.5	(a) Describe any two objects of leveling.	03
	(b) What is leveling? Explain fly leveling.	04
	(c) Write a note on underground levelling and subsidence survey	07
OR		
Q.5	(a) Define the term : Transit Theodolite and Non-transit Theodolite	03
	(b) Write a brief note on latest equipments used for surveying.	04
	(c) Explain the procedure for determining the constants by tacheometric surveying.	07
