

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– V (New) EXAMINATION – WINTER 2019****Subject Code: 2152205****Date: 21/11/2019****Subject Name: Advance 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) What is traversing? When is it used?	03
	(b) Describe elements of Simple curves.	04
	(c) What is vertical curve? Explain types of vertical curves.	07
Q.2	(a) Describe the role of scale in surveying.	03
	(b) Define the Back Tangent and Second Tangent.	04
	(c) List out various types of curves with sketch and describe elements of Compound curves.	07
	OR	
	(c) Explain different methods of Setting out of curve.	07
Q.3	(a) Define the following terms:- (1) Intersection Angle (2) Mid-ordinate (3) Length of curve.	03
	(b) Explain gyro-theodolite and its uses.	04
	(c) Explain preparation and preservation of plans and sections.	07
	OR	
Q.3	(a) Write the advantages of gyro – theodolite.	03
	(b) Write short note on clinometers.	04
	(c) Describe various uses of Gyroscope.	07
Q.4	(a) What precautions should be taken in use of correlation method?	03
	(b) Write a short note on GPS.	04
	(c) Explain the working of pentagraph with suitable sketch.	07
	OR	
Q.4	(a) Write short note on remote sensing.	03
	(b) Write short note on GIS.	04
	(c) Explain Planimeter with neat sketch.	07
Q.5	(a) Explain Weisbach Traingle.	03
	(b) Write short note on Enlargement of Mine Plans.	04
	(c) Explain Hanging compass with its applicability in mining and its method of working.	07
	OR	
Q.5	(a) Explain the deflection angle in brief.	03
	(b) Explain eidograph with neat diagram.	04
	(c) Explain miner's dial with its applicability in mining and its method of working.	07
