

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2019****Subject Code: 2152205****Date: 03/06/2019****Subject Name: Advance 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) Define curve ranging. Explain direct and indirect method of curve ranging.	03
	(b) Describe the various uses of gyroscope.	04
	(c) Explain the element of compound curve with neat sketch.	07
Q.2	(a) Define Photogrammetry. Differentiate between terrestrial and aerial Photogrammetry.	03
	(b) Define correlation survey. Enumerate the different methods of correlation surveys.	04
	(c) Define GIS. Write their components and give the application of GIS.	07
	OR	
	(c) Define GPS. Explain various measurements techniques with GPS.	07
Q.3	(a) Discuss the advantages of Photogrammetry.	03
	(b) Describe the field work of Terrestrial Photogrammetry.	04
	(c) Describe the coplaning method of correlation survey of a mine. Explain precautions to be taken in work.	07
	OR	
Q.3	(a) Discuss the various purposes of correlation surveying in mines.	03
	(b) Discuss the advantages of Aerial Photogrammetry.	04
	(c) Describe a method of connecting the surface with the survey of underground workings of a mine when only one shaft is available for survey work. Explain precautions to be taken in work.	07
Q.4	(a) List out different methods of setting out curves.	03
	(b) Explain the various stages of Aerial Photogrammetry.	04
	(c) Explain setting out of curves by chords and offsets method.	07
	OR	
Q.4	(a) Describe various uses of Miner's Dial.	03
	(b) Describe various general requirements about mine plans.	04
	(c) Explain setting out of curves by chords and angles method.	07
Q.5	(a) What is tape triangulation of stope survey? When it is used?	03
	(b) Explain Planimeter and its uses.	04
	(c) Define dip and fault. Explain various types of fault with neat sketches.	07
	OR	
Q.5	(a) Discuss the uses of ediograph and pentagraph in preparation of mine plans and section.	03
	(b) Explain how to represent geological and other features in mine plans and section.	04
	(c) Explain the correlation survey by magnetic needle.	07
