

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V(New) • EXAMINATION – WINTER 2016****Subject Code:2152205****Date:22/11/2016****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	Short Questions	14
	1 What is correlation surveying?	
	2 What is GPS?	
	3 Define the GIS.	
	4 How can work of remote sensing.	
	5 What is photogrammetry?	
	6 What is different between Dip and strike?	
	7 Define the True dip.	
	8 Explain the fold & fault.	
	9 Explain the list out of instrument used in field surveying.	
	10 Give Application of GIS.	
	11 Define curve. How many types of curve?	
	12 Define the terms: (1) Back tangent (2) Normal chord.	
	13 Define the terms: (1) Deflection angle (2) Apex point.	
	14 Define the terms: (1) Point of intersection (2) Reverse curve.	
Q.2	(a) Explain the elements of compound curve.	03
	(b) Explain Weisbach Traingle.	04
	(c) What are different methods of correlation?	07
	OR	
	(c) What is photographic survey? Discuss the photograph versus maps.	07
Q.3	(a) Explain various mine models.	03
	(b) Write a short note on preparation and preservation of plan and section.	04
	(c) What are the different methods of curve ranging? Explain.	07
	OR	
Q.3	(a) Explain Mining suspension compass with clinometers and transit.	03
	(b) How correlation survey is useful in steeply inclined shafts?	04
	(c) Write a short note on Remote Sensing.	07
Q.4	(a) What is GIS? Explain in brief.	03
	(b) How plans and sections are prepared with respect to mining?	04
	(c) What is tape triangulation method of stop survey? When it is used?	07
	OR	
Q.4	(a) Explain any one method of stope surveying which are used in metal mines.	03
	(b) Write a short note on Photogrammetry.	04
	(c) Explain gyro-theodolite, its uses and advantages.	07

- Q.5** (a) What are legal requirements as to mine plan in India. 03
(b) What is the application of GPS in mining survey? 04
(c) Explain Miner's dial with neat and clean sketch. 07

OR

- Q.5** (a) Explain Rankin method for setting out of curve. 03
(b) Explain Planimeter with sketch and write their uses. 04
(c) Define the terms: (1) Back tangent (2) Normal chord (3) Deflection angle (4) Apex point (5) Simple curve (6) Point of intersection (7) Reverse curve. 07
