G AT	T 1 . N
Seat No.:	Enrolment No.

Subject Code: 152204

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION - SUMMER • 2014

Date: 17-06-2014

Tin	ne: 1 ructio 1. 2.	Attempt all questions.	
Q.1	(a) (b)	Define curve. Explain Rankine method for setting out curves. List out the methods of enlarging and reduction of plans. Explain Eidograph and Pantagraph with neat sketches.	07 07
Q.2	(a) (b)	Define photographic survey. Discuss the photograph versus maps. What are GIS and GPS? Enlist different applications of GIS and GPS. OR	07 07
	(b)	Define the terms: (1) Back tagent (2) Normal chord (3) Deflection angle (4) Apex point (5) Simple curve (6) Point of intersection (7) Reverse curve.	07
Q.3	(a)	Describe method of magnetic correlation for connecting the surface survey with the survey of underground workings of a mine.	07
	(b)	Write a short note on uses of miner's dial and hanging compass with clinometers and theodolite in stope surveying. OR	07
Q.3	(a) (b)	Explain correlation with gyro-theodolite with its uses and advantages. Describe measurement for the scale of a vertical photograph.	07 07
Q.4	(a)	Give the name of different types of plans. Add a note on legal requirements as to mine plans in India.	07
	(b)	Write a short note on Weisbach Triangle. OR	07
Q.4	(a) (b)	Explain various mine models. Explain preparation and preservation of plans and sections.	07 07
Q.5	(a)	Two straight roads intersect at 100m. calculate following if they are connected	07
	(b)	with radius of 200 m. (1) tangent distance (2) external distance (3) long chord. Write a sort note on planimeter and its uses with neat sketch. OR	07
Q.5	(a)	The coal seams dip S 10° E at 1 in 5 and are 45 metres apart vertically. Calculate a level cross measure drift driven in the direction of S 20° W.	07
	(b)	Define compound curve. Give the elements of compound curves.	07
