Seat No.:	
Seat NU	

Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER- V• EXAMINATION - SUMMER 2015

Subject Code: 152204 Date: Subject Name: ADVANCE MINE SURVEYING			15
Tiı	•	2.30pm-05.00pm Total Marks:	70
115		Attempt all questions. Make suitable assumptions wherever necessary.	
Q.1	(a)	Describe in detail method of setting out simple curve when apex is accessible.	07
	(b)	Also give the list of equipment required. Describe a method of correlation of surface and underground surveys when one vertical shaft is available.	07
Q.2	(a)	Explain tape triangulation method of stope surveying. Under what condition this method is used?	07
	(b)	Explain Weisbach triangle method.	07
	(b)	OR What is photographic survey? Discuss the photograph versus maps.	07
Q.3	(a)	Explain various mine models.	07
C	(b)	Explain preparation and preservation of plans and sections.	07
Q.3	(a)	Explain the working of pentagraph with suitable sketch.	07
	(b)	Define GIS. GPS and remote sensing? Give application of GIS in surveying.	07
Q.4	(a)	Explain Hanging compass and miner's dial with its applicability in mining and its method of working.	07
	(b)	Explain correction with gyro- theodolite with its uses and advantages. OR	07
Q.4	(a)	What plans and sections are required to be kept at a limestone open cast mine under various regulations and rules? What essential information must be shown on each plan and sections?	07
	(b)	Write short note on measurement for the scale of a vertical photograph.	07
Q.5	(a)	A roadway dipping 1 in 10 in the direction of full dip of a seam strikes an upthrow fault, bearing at right angle thereto with a throw of 25 cm measured from floor to floor along the fault plane with the hade of 30^{0} from the vertical. Calculate the length of the drift to win the seam commencing at the lower side of the fault and rising 1 in 3 in the same direction as the roadway.	07
	(b)	Explain Idiograph. OR	07
Q.5	(a)	What is compound curve? Give the elements of a compound curve with a neat	07
	(b)	sketch. What is vertical curve? Explain type of vertical curves?	07
