Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV(New) EXAMINATION – SUMMER 2016

Subject Code:2142202 **Date:03/06/2016**

Subject Name:Basic 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 the use of Miner' Dial?	
	2	What is the use of Theodolite?	
	3	Define the term : Line of Collimation	
	4	What do you meant by Traversing?	
	5	List out different instruments used for Leveling.	
	6	Write the use of Contours.	
	7	Define the term : Centering of Theodolite	
	8	Give the definition of : Face Right Observation	
	9	Give the definition of : Face Left Observation	
	10	Define the term : Transit Theodolite and Non-transit Theodolite	
	11	Define the term: Vertical Axis	
	12	What do you mean by Changing Face?	
	13	Give the definition of Turning in Azimuth and Turning in Altitude	
	14	Define the following term : Telescope Normal and Telescope Inverted	
Q.2	**(a)**	Write different uses of Miner's Dial.	**03**
	(b)	Differentiate between Tubular Compass and Trough Compass.	**04**
	(c)	Describe construction of Miner's Dial with sketch.	**07**
		OR	
	(c)	Explain the test and adjustment of Mine's Dial.	**07**
Q.3	**(a)**	List out different parts of Theodolite with sketch.	**03**
	(b)	Explain Permanent adjustment of Theodolite.	**04**
	(c)	Describe measurement of Horizontal angle with theodolite in detail.	**07**
		OR	
Q.3	**(a)**	Write note on Construction of Tubular Compass and Through Compass.	**03**
	(b)	Explain Temporary adjustment of Theodolite.	**04**
	(c)	Describe measurement of Vertical angle with theodolite in detail.	**07**
Q.4	**(a)**	Explain Theodolite Traversing in brief.	**03**
	(b)	Write short note on Omitted measurement.	**04**
	(c)	Describe closing error and its adjustment.	**07**
		OR	
Q.4	**(a)**	Explain any three Leveling Instruments with sketch.	**03**
	(b)	Explain measurement of depth of shaft with sketch.	**04**
	(c)	Describe fly leveling and subsidiary survey in brief.	**07**
Q.5	**(a)**	Write note on principle of Tachometric Surveying.	**03**
	(b)	Describe Additive and Multiplying Constants in detail.	**04**
	(c)	Explain General Procedure for field work in brief.	**07**
		OR	
Q.5	**(a)**	Write note on characteristics of Contours.	**03**

(b) Describe basic concept of Triangulation Survey. **04**

(c) Explain Interpolation of contours in brief. **07**

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