

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-IV (NEW) EXAMINATION – WINTER 2018****Subject Code: 2142202****Date: 05/12/2018****Subject Name: Basic 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
<b>Q.1</b>	(a) What is leveling?	<b>03</b>
	(b) Write the various uses of theodolite in mine surveying.	<b>04</b>
	(c) Describe the construction of Miners Dial with sketch.	<b>07</b>
<b>Q.2</b>	(a) Explain the Line of Collimation.	<b>03</b>
	(b) Write short note on characteristics of contours.	<b>04</b>
	(c) Explain basic concept of triangulation surveying.	<b>07</b>
	<b>OR</b>	
	(c) Give the classifications of the Triangulation survey.	<b>07</b>
<b>Q.3</b>	(a) Write short note on prismatic compass.	<b>03</b>
	(b) Describe the permanent adjustment of Theodolite.	<b>04</b>
	(c) Write a note on types of tachometry.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Write the applications of prismatic compass.	<b>03</b>
	(b) Describe the temporary adjustment of Theodolite.	<b>04</b>
	(c) Write a note on subsidence survey.	<b>07</b>
<b>Q.4</b>	(a) Describe theodolite traversing.	<b>03</b>
	(b) Write a note on Tubular compass.	<b>04</b>
	(c) Draw a neat sketch of vernier theodolite and name its various parts.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Differentiate between Tubular and through compass.	<b>03</b>
	(b) Write short note on measurement of Horizontal angles.	<b>04</b>
	(c) Explain closing error with its adjustment.	<b>07</b>
<b>Q.5</b>	(a) Define the terms: (1) Transiting (2) Northing (3) Face left.	<b>03</b>
	(b) Write short note on measurement of Vertical angles.	<b>04</b>
	(c) Explain various Leveling instruments.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Define following terms: (1) Parallax (2) Change point (3) Back sight.	<b>03</b>
	(b) Write various uses of contour lines on mine plans.	<b>04</b>
	(c) Explain balancing of traverse by Bowditch rule.	<b>07</b>

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