

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-V (NEW) - EXAMINATION – SUMMER 2016****Subject Code:2152205****Date:09/05/2016****Subject Name:Advance 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.

- Q.1** (a) List out various types of curves. Draw the various circular curves and write the uses of curve in brief. **07**
- (b) Define the following terms with sketch: **07**  
(1) Back Tangent & Second Tangent (2) Vertex (3) Point of Curve (4) Point of Tangency (5) Intersection Angle (6) Mid-ordinate (7) Length of curve.
- Q.2** (a) Describe elements of Compound Curve with sketch. **07**
- (b) Explain Two theodolite method of Setting out of curve. **07**
- OR**
- (b) Explain tachometric method of Setting out of curve s. **07**
- Q.3** (a) Define correlation with purpose. List out various methods of correlation and explain one of them. **07**
- (b) Explain various precautions taken when using gyro-theodolite. **07**
- OR**
- Q.3** (a) Write various uses and advantages of Gyro-theodolite. **07**
- (b) Explain Miner's dial with sketch and also write their uses. **07**
- Q.4** (a) Explain Plannimeter with their uses. **07**
- (b) Describe various general requirements about mine plans. **07**
- OR**
- Q.4** (a) Explain Eidograph and Pentagraph preparation for mine modes. **07**
- (b) Explain Photogrammetry with their application in Mining. **07**
- Q.5** (a) What is GPS? Write their advantages in brief. **07**
- (b) Define faults. List out various types of fault and explain reverse fault with sketch. **07**
- OR**
- Q.5** (a) What is GIS? Write their components and give the application of GIS. **07**
- (b) Explain various measurements techniques with GPS. **07**

\*\*\*\*\*