Total No. of Questions : 9]   [Total No. of Printed Pages : 3

Roll No

MI-5002 (CBGS)

B.E. V Semester

Examination, November 2018

Choice Based Grading System (CBGS)

Mining Surveying - II

Time : Three Hours

Maximum Marks : 70

Note: i)   Attempt any five questions.

ii) All questions carry equal marks.

iii) Draw the layout where it needs necessary.

1. a)   Explain different temporary adjustment of theodolite surveying. 7

   b)   Explain reiteration method of theodolite surveying with neat sketch, observation table and calculation of interior angle. 7

2. a)   Explain different fundamental lines of theodolite with neat sketch. 7

   b)   Explain principle of stadia method of tacheometric surveying. 7

3. a)   Explain theory and principle of analytic lens and derive the equation for multiplying constant and additive constant. 7

   b)   Explain tangential method of tacheometric surveying. 7

4. a)   Explain Rankin's method of tangential angle surveying. 7

   b)   Explain the functions, conditions and advantages of transition curve. 7

5. a)   Explain the different rules of area measurement of irregular boundaries. 7

   b)   Explain planimeter with neat sketch 7

6. a)   Explain ediograph and pentagraph with neat sketch. 7

   b)   Three borehole A,B and C have been put down to a coal seam. B is due to north of A 1250 m and C is N 60°W 800 m from A. the surface levels of boreholes are the same. The depth of A = 750m, B = 1300m and C = 950m. Calculate the rate and direction of full dip of the seam. 7

OR

A seam dipping due east at 1 in 7 strikes a reverse fault running north south with the hade of 25° and up throw of 21m. A cross measure drift rising at 1 in 5 to intersect the seam on the eastern side starting 45m back from fault. Assuming that the seam on the eastern side is dipping due at east 1 in 10 calculate the length of the drift. 7

7. Derive the equation for distance and elevation with neat sketch for following condition. 14

   a)   Vertical staff and elevated sight

   b)   Vertical staff and depressed sight

   c)   Normal staff and elevated sight

   d)   Normal staff and depressed sight

8. Define the following with equation of calculation   14
   i) Tangent distance
   ii) Length of cord
   iii) Length of curve
   iv) Angle of deflection
   v) Rise of curve
   vi) Apex distance
   vii) Compound curve

9. Draw and give the remarks for following convections for preparing plan and section   14
   i) Underground coal barrier
   ii) Incline   http://www.rgpvonline.com
   iii) Abandoned incline
   iv) Pillar and galleries
   v) Abandoned staple shaft
   vi) Goaf
   vii) Bench mark
   viii) Surface contour
   ix) Doors
   x) Brick/stone/concrete ventilation stopping
   xi) Explosion proof stopping
   xii) Air crossing
   xiii) Engine house
   xiv) Section of seam

******

MI-5002 (CBGS)