



C09-MNG-406

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BOARD DIPLOMA EXAMINATION, (C-09)

MARCH / APRIL - 2019

DMNG - IV SEMESTER EXAMINATION

MINE SURVEYING - II

Time : 3 Hours]

[Total Marks : 80

PART - A

3×10=30

- Instructions :**
- (1) Answer **ALL** questions.
 - (2) Each question carries **THREE** marks.
 - (3) Answer should be brief and straight to the point.

- 1 Explain the term rectangular coordinates.
- 2 Explain the term 'Permissible error of closure'.
- 3 List the classification of the systems of triangulation.
- 4 List the points to be considered for selection of triangulation station.
- 5 List the classification of the curves.
- 6 Define the term correlation.
- 7 State the purposes of correlation.
- 8 List merits and demerits of tachometric survey.

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9 State the objectives of Stope Surveying.

10 What is EDM ?

PART - B

10×5=50

- Instructions :**
- (1) Answer any **FIVE** questions.
 - (2) Each question carries **TEN** marks.
 - (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11 Below noted are the details of a closed traverse :

Line	Bearing	Distance
AB	N85°E	439m
BC	Due South	488m
CD	S60°W	377m
DA	N10°W	609.5m

Calculate the area of traverse ABCD by co-ordinate.

12 The following are the notes of an underground traverse in level seam :

Line	Azimuth	Distance
AB	170°	400m
BC	95°	200m
CD	50°	420m
DE	145°	550m

Calculate the azimuth and length of the roadway to be driven to connect the stations E and A.

13 Explain the mine triangulation system.

- 14 Explain the method of setting out curves by chord and offset method on surface and u/g.
- 15 Describe the method of Weisbach triangle or approximate alignment method.
- 16 The following readings were taken with a tachometer with the line of sight horizontal on a staff held vertical

0.950

1.285

1.620m

Determine the horizontal distance from the instrument station to the staff station if $k = 100$ and $C = 0.15$ m. Also determine the R.L. of the staff station. If the R.L. of the instrument station is 101.58 meter and the height of the Trunion axis is 1.460 m.

- 17 Explain the Tying-in method and its field of application.
- 18 State principle of working GPS in Mines.
