



C09-MNG-406

**3517**

**BOARD DIPLOMA EXAMINATION, (C-09)  
OCTOBER/NOVEMBER-2018  
DMNG-FOURTH SEMESTER EXAMINATION**

MINE SURVEYING-II

Time : 3 Hours ]

[ Total Marks: 80

**PART-A**

3X10=30

- Instructions :**
1. Answer **All** questions.
  2. Each question carries **Three** marks.
  3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. State the Bowdich Rule of balancing the traverse.
2. List the method of travelling with theodolite.
3. List the classification of the systems of triangulation.
4. List the adjustments (checks) for measured angles of a triangle.
5. Define (a) Reverse curve (b) Super elevation.
6. State the purpose of correlation.
7. List the different methods of correlation.
8. State the principle of tachometric Surveying.
9. List the maintenance of plans and sections as per CMR/MMR.
10. State the applicability of GPS in Mines.

**PART-B**

10X5=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. The following are the notes of an underground traverse:

Line	Quadrant bearing	Hor. Distance
AB	N36 <sup>0</sup> 14'E	320m
BC	N6 <sup>0</sup> 18'W	420m
CD	S81 <sup>0</sup> 44'E	115m

The coordinates of A are 443.7m south and 186.1m west based on a local origin. Calculate the coordinates of the station B,C and D and determine the length and bearing of closing line DA.

12. Below noted are the details of a closed traverse:

Line	Bearing	Distance
AB	N85 <sup>0</sup> E	439m
BC	Due south	488m
CD	S60 <sup>0</sup> W	377m
DA	N10 <sup>0</sup> W	609.5m

Calculate the area of traverse ABCD by co-ordinate

- 13. Explain the scheme of triangulation and principle of triangulation.
- 14. Explain the method of setting out curve by chord and angle Method on surface.
- 15. Describe the method of Correlation by co-planning method.
- 16. Derives the relation (formula) between stadia reading horizontal distance and vertical distances when the line of sight is inclined and staff is vertical
- 17. Explain Redial rays method and its field of application.
- 18. Explain the principle of working of Electronic Theodalite

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