



C-14-MNG-305

4270

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DMNG - III SEMESTER EXAMINATION

MINE SURVEYING - I

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 and shall not exceed five simple sentences.

- 1 State the principle of surveying.
- 2 Classify the methods of measuring distances.
- 3 Define the terms :
 - (a) Offset
 - (b) Check line.
- 4 State the purpose of chain surveying.
- 5 Define the terms :
 - (a) Declination
 - (b) Dip.
- 6 Define the terms :
 - (a) True Meridian
 - (b) Magnetic Meridian.
- 7 Define the terms :
 - (a) Back sight
 - (b) Fore sight

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[Contd...

- 8 State the applicability of profile levelling.
- 9 List uses of contours for mining Engineer.
- 10 Define the terms :
- (a) Stratum contours
 - (b) Grade contours.

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 The length of a line measured with a 30 m chain was found to be 475 metres. The true length of the line was known to be 473 metres. Find the error in the chain.
- 12 Describe the method of chaining where vision is obstructed but chaining is free.
- 13 List the factors governing the selection of station in chain surveying.
- 14 (a) Define the term local attraction. 3
- (b) List the reasons for local attraction. 7

- 15 Calculate the interior angles of traverse. The bearing of the sides of the traverse A, B, C, D are given below :

Line	Reduced fore bearing
AB	N 50° 20' E
BC	S 51° 40' E
CD	S 20° 30' W
DE	N 59° 20' W

- 16 Explain the compound levelling.
- 17 The following consecutive readings were taken with a level and a 4 metres levelling staff on continuously sloping ground at a common interval of 30 m.
 0.585 on A, 0.935, 1.955, 2.845, 3.645, 3.940.
 0.960, 1.035, 1.700, 2.535, 3.580, 0.955, 1.580, 3.015 on B.
 The elevation on A was 520.450 M. Tabulate the above readings and calculate the gradient of the line AB, apply usual checks.
- 18 Describe the square method of contouring.