4270

BOARD DIPLOMA EXAMINATION, (C–14)

MARCH/APRIL—2018

DMNG—THIRD 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) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. State the principles os surveying.

2. List the reasons for incorrect length of chain.

3. Define *(a)* base line and *(b)* Teiline.

4. List the steps in chain surveying.

5. List the reasons for local attraction.

6. State the uses of compass.

7. Define the terms *(a)* back sight and *(b)* foresight.

8. Define *(a)* level surface and *(b)* horizontal plan.

9. Define the term contour.

10. List the uses of contour for mining engineer.

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PART—B 10×5=50

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Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain the method of measuring distance on sloping ground (stepping method).

12. Describe the method of chaining where vision is free but chaining is obstructed.

13. Describe the method of chaining where vision is obstructed but chaining is free.

14. State the parts of prismatic compass with sketch.

15. Convert the whole circle bearings to quadrant bearing and vice versa.

(a) 69 30

(b) 125 40

(c) 241 10

(d) 330 20

(e) 250 30

16. Explain the terms simple levelling, compound levelling.

17. The following consecutive readings were taken with dumpy level :

1·894, 2·643, 3·896, 4·016, 1·954, 1·692, 1·582, 1·251, 2·532, 1·996, 3·135, the instrument was shifted after the fourth and eight readings the first reading was taken on the staff held on the bench mark of RL 620·765. What is the difference level between the first and last points.

18. List the uses of contours for mining engineer.

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