3015

BOARD DIPLOMA EXAMINATION, (C-09)
OCTOBER/NOVEMBER-2018
DCE – FIRST YEAR EXAMINATION

SURVEYING – I

Time : 3 Hours]   [Total Marks: 80
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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 and explain the primary divisions of surveying.

2. Draw the conventional symbols for the following

    (a) North direction   (b) Building   (c) Canal

3. What are the duties of leader and follower while ranging and chaining?

4. Define (a) Offset (b) Perpendicular offset (c) Oblique offset.

5. Define closed traverse and open traverse in compass survey.

6. What is meant by local attraction? How do you detect?

7. Briefly explains about reciprocal leveling with neat sketch.

8. Define the terms   (a) Vertical axis   (b) datum   (c) elevation

9. How do you align railway lines using contour maps?

10. Write short notes of Abney level.

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PART-B

Instructions   :   1. Answer any **Five** questions.
2. Each question carries **ten** marks.

11. A survey line ABCD is crossing a pond. Stations B and C are on the opposite sides of the pond. Two lines BM (270M) and BN(330M) were then set out on either side of the pond and clearing it. Also MC and CN are found to be 150M and 165M respectively. Points M, C and N are in the same straight line. Calculate the missing length BC on the main line.

12. Explain the procedure of reciprocal ranging with neat sketch.

13. Explain with neat diagram and adjustment of closing error by graphical method of Bowditch' rule.

14. Define magnetic declination and explain the different variations declination.

15. Explain the radial method of countouring

16. While carrying out leveling operation with a dumpy level and a 4m leveling staff, the following observations were recorded 0.865, 1.430, 0.135, 2.430, 1.815, 3.260, 1.750, 2.105 and 1.380. The leveling instrument was shifted after 4th and 7th readings. The first reading was on a BM of R.L. 100.00m. Rule out a page of a level book and enters the above readings in correct form and computers are reduced levels of the remaining points by rise and fall method. Apply the check.

17. The line of sight from two points A and B just grazes the sea level. If the height of A and B above sea level are 100 and 150m respectively, find the distance AB (diameter of earth = 12,880km)

18. Explain with neat sketch how the plans are enlarged or reduced by using Pantagrah.

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