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C09-C-105

3015

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2021

DCE - FIRST YEAR EXAMINATION

SURVEYING - I

Time : 3 hours ]

[ Total Marks : 80

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PART—A

4×5=20

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

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

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. What are the basic principles of surveying?
2. What are the instruments used for chain surveying?
3. Draw the conventional signs for (a) north line and (a) chain line.
4. Define an offset and mention any two types of offsets.
5. Define whole-circle bearing and quadrantal bearing.
6. Convert the following quadrantal bearings to whole-circle bearings :  
(a) N 40°30' E  
(b) S 27°30' W
7. Define backsight and foresight.
8. State the uses of contour maps.
9. List any two types of benchmarks.
10. Write any four types of minor instruments.

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**PART—B**

15×4=60

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

11. State various types of obstacles in chaining with an example to each type.
12. Explain method of ranging and chaining a line.
13. List the equipments required for compass survey fieldwork and also write the principle used in compass survey.
14. Distinguish between closed traverse and open traverse.
15. Draw a neat sketch of a dumpy level and label the component parts.
16. What is the role of surveyor while aligning a fieldwork by using a Field Measurement Book.
17. Explain any five characteristics of contour.
18. State any two uses and working principle of pantograph.

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