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BOARD DIPLOMA EXAMINATION, (C-14)  
MARCH/APRIL—2021  
DCE - FOURTH SEMESTER EXAMINATION  
SURVEYING - III

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. Name the instruments used in trigonometric levelling.
2. List the uses of tacheometry surveying.
3. List out the constants of tacheometry in tacheometry surveying.
4. Define simple curve.
5. Draw neat sketch of any two types of simple circular curves.
6. State any two advantages of GPS.
7. State the use of electronic theodolite.
8. Define map.
9. List any two parts of total station and state their functions.
10. List any four advantages of total station.

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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. In order to determine the RL of top of pole, the theodolite was set up at a distance of 60 m from its base. The vertical angle measured to the top of the chimney was  $28^{\circ} 30'$ . The backsight taken on a nearby benchmark of RL 50.000 m was 2.150 m. Determine RL of top of the chimney.
12. Write the expression for finding the RL of an object when base is accessible, but instrument stations are in same plane and explain the notations.
13. Name different methods of tacheometric surveying and explain any one method.
14. Write a short note on tangential tacheometry.
15. Explain the role of Civil Engineer, while setting curve in alignment.
16. Draw a neat sketch of simple circular curve and show all notations.
17. Enumerate the advantages and disadvantages of global positioning system (GPS).
18. Briefly explain, how total station is useful while construction of dam.

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