



C16-C -304

6225

BOARD DIPLOMA EXAMINATION, (C-16)

JUNE—2019

DCE - THIRD SEMESTER EXAMINATION

SURVEYING - II

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. What are the fundamental lines of transit Theodolite?
2. Define Swinging and plunging of a telescope.
3. What is meant by face left and face right of a Theodolite?
4. What is trigonometric levelling? When is trigonometric levelling used?
5. List out the different cases of trigonometric levelling.
6. What are the different methods of tacheometric surveying?
7. What is an anallatic lens? Mention its advantage.
8. Derive an expression for degree of curve in terms of its radius.
9. What are the different methods of curve setting in the field?
10. State three functions of total station.

PART—B

5×10=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answer should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. Explain measurement of vertical angle using a Theodolite.
12. (a) Define the terms latitude & departure of a survey line.
(b) The algebraic sum of latitudes & departure of a closed traverse were -1.3m & 0.8m respectively. Find the length & direction of closing error.
13. In order to find the height of an electric pole, two vertical angles $+4^{\circ}30'$ and $-5^{\circ}15'$ are measured top and bottom of a pole from instrument station which is at a distance of 75 m from base of pole. Find the height of pole and RL of bottom of the pole. The R.L of the instrument axis is 155.00m.
14. The distance of 55m and 310m were accurately measured out and the intercepts on the staff between the outer stadia were 0.48 at the former distance and 2.95 at the later. Find out the constants of the tachometer.
15. (a) Explain the principle of tachometry
(b) State the term 'staff intercept' and explain the constants of tachometry in stadia tachometry.
16. (a) List the different types of horizontal curves with a neat sketch.
(b) Two straights AB and BC are connected by a circular curve of 300m radius. Calculate the five elements of the curve, if the deflection angle is 40° .
17. Calculate the ordinate from a 150m long chord at 10m interval to set out a simple circular curve of 9° .
18. What is total station? Explain briefly the use of total station.