C09-C-**305**

3221

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH / APRIL - 2019

DCE - III 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)   Answer should be brief and straight to the point.

1   Write the errors which are eliminated in Repetition method.

2   Define :

(a)   Face left observation

(b)   Swinging of telescope

(c)   Telescope normal.

3   What do you mean by omitted measurements in theodolite survey ?

4   List out the different cases of trigonometric levelling.

5   State any three disadvantages of Tangential Tacheometry.

6   What do you mean by Stadia Tachometry ?

7   If the radius of a curve is 400 m, find the degree of a curve.

8   State any three angular methods of curve setting.

9   List any three modern surveying instruments.

10   Write three uses of G.P.S. in civil engineering.

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

11   Explain how to calculate the area of a closed traverse by independent coordinates method.

12   A closed traverse was conducted round an obstacle and the following observations were made. Work out the missing quantities.

Side	Length (m)	Azimuth
AB	495	98°00'
BC	625	30°40'
CD	465	298°00'
DE	?	230°00'
EA	?	150°00'

13   To determine the elevation of the top of an aerial pole, the following observations were made :

Instrument Station	Reading on BM	Angle of elevation	Remarks
A	1.875 m	11°53'	R.L. of
B	1.760m	8°05'	B.M. = 80.150m

Stations A and B and the top of the aerial pole are in the same vertical plane. Find the elevation of the top of the aerial pole if distance between A and B is 20 m. (Assume staff readings are obtained with lines of sight horizontal).

14   (a)   Explain briefly how the additive and multiplying constants of a Tacheometer are determined in the field.

(b)   Differentiate between fixed hair method and movable hair method of techometry.

15   Two straights intersect at chainage 2417 m. The deflection angle is 11°. Calculate radius of the curve, chinage at first tangent point and second tangent point. Assume 2° curve.

16   How will you setting out a circular curve with a chain and a theodolite by method of tangential angles ?

17   (a)   What are stereoscopic plotting instruments ? What are   6

the main components of such instruments ?

(b)   List any four uses of Photogrammetry.   4

18   (a)   Explain briefly Raster and Vector data representation in GIS. 6

(b)   State any four applications of G.I.S. in transport planning.   4

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