C09-C-**305**

3221

**BOARD DIPLOMA EXAMINATION, (C–09)
OCT/NOV—2018
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. State the principle of theodolite surveying.

2. State the temporary adjustments for taking observations usign theodolite.

3. What is meant by omitted measurements?

4. State the principle of trigonometric leveling.

5. State the advantages of tacheometry.

6. State the principle of tangential tacheometry.

7. State the various liner methods of curve setting in the field.

8. Write short notes on long chord and Normal chord.

9. State the principle of total station.

10. What is meant by photogrammetric surveying.

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PART–B   10×5=50

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

(2) Each questions carries **ten** marks.

(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. Write the field procedure of tempurary adjustments of a Theodolite.

12. In a traverse survey the length and bearing of last line was not recorded. Fins the length and bearing of the last line.

Line	Length (m)	Bearing
AB	75.50	$30^0 \ 24'$
BC	180.50	$110^0 \ 36'$
CD	60.25	$210^0 \ 30'$
DA	?	?

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

Instrument station	Reading on B.M.	Angle of elevation	Remarks
A	1.375 m	$11^0 \ 53'$	R.L. of B.M.=30.150 m
B	1.260 m	$8^0 \ 05'$	

Stations A and B and the top of the aerial pole are in the same vertical pole. Find the elevation of top of the aerial pole if the distance between A and B is 30 m. Assume staff readings are obtained with line of sight horizontal.

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14. A tacheometer with multiplying constant 100 and additive constant 0.30 was set up at station O and the following results were obtained by keeping the staff vertically.

Calculate the RL of station P.

Inst. station	Staff station	Hair readings	Vertical angle	Remarks
O	BM	1.875, 2.150, 2.425	$+6^0 00'$	RL of BM is 152.000 m
	P	1.650, 1.800, 1.950	$-10^0 30'$	

15. A simple circular curve has a radius of 300 m and long chord of length 120m. Calculate the offsets to the curve from the long chord at 10 m intervals.

16. Tabulate the necessary data to set out a right handed circular curve of 600 m radius to connect two straights intersecting at a chainage of 3605 m by Rankine's methods of deflection angles, the angle of deflection being 25 and peg interval 30 m.

17. State the applications of GPS & GIS in Civil Engineering.

18. Explain Remote sensing platforms and sensors.

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