

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

**SURVEYING FOR ARCHITECTURE**

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Name the survey that the curvature of earth is considered.
2. Name the point on which both BS and FS are taken.
3. The back bearing of S 18°W.
4. Name the process of turning the telescope in horizontal plane.
5. What is slope distance ?

(5×2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. From a chain survey record, a plot is quadrilateral in shape. The north and south sides are 95 m and 150 m respectively. Side east is vertical and is 80 m. Determine the length of the west side.

2. Convert

(a) into quadrantal bearing.

(i) 180°12',                      (ii) 350°

(b) into whole circle bearing

(i) N 55°15'W                      (ii) S 10°E

3. Describe any method to measure a horizontal angle using theodolite.
4. Compare simple levelling and differential levelling.
5. Show the specimen field book for recording observations of a reiteration method.
6. Write about remote sensing.
7. Classify remote sensing.

(5×6 = 30)

## PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

## UNIT — I

III The following offsets were taken from a chain line.

Chainage	0	25	40	60	100
Offset	12 left	10 right	12 right	10 left	0

All measurements are in m. Calculate the area of plot.

15

OR

IV (a) Plot the following cross staff survey of a field ABCDEFG and calculate its area.

	600	D	
	550	100 E	
C 200	490		
	300	150 F	
B 150	180		
	100	50 G	
	0	A	

9

(b) Write the methods of plane tabling.

6

## UNIT — II

V The following readings were taken with levelling instrument with station A as a bench mark with RL 81.000 m. The instrument is shifted after 3rd, 7th and 9th reading. The readings are 0.32, 0.990, 0.770, 1.030, 1.105, 1.110, 0.550, 1.400, 1.000, 0.330 and 1.200. Find out the RL of each station.

15

OR

VI To determine the level difference between two stations A &amp; B. A levelling instrument is fixed at P from which both the stations are visible. RL of station A is +10.20. Staff reading at A and B are 1.50 and 1.48 resp.

15

## UNIT — III

VII (a) Differentiate between Non transit theodolite and transit theodolite.

6

(b) Explain the instrument - transit theodolite.

9

OR

VIII (a) Define latitude and departure.

6

(b) Give the signs of consecutive co-ordinates in different quadrants.

9

## UNIT — IV

IX (a) State the parameters of total station.

6

(b) Explain Distomat.

9

OR

X (a) Explain GPS.

6

(b) Write the application of GPS.

9