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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

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. Number of links in 20 m chain.
2. The process of setting the theodolite exactly over an instrument station.
3. Name the inclination of magnetic needle with the horizontal.
4. Name the combination of electronic theodolite and an electronic distance meter.
5. The least count of levelling staff. (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Distinguish between perpendicular offset and oblique offset.
2. Explain reciprocal ranging.
3. Compare HI system and rise and fall system.
4. Explain upper plate and lower plate of transit theodolite.
5. What is closed traverse.
6. Write about telescopic levelling staff.
7. What are the basic calculations of total station. (5×6 = 30)

Marks

PART — C

(Maximum marks : 60)

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

UNIT — I

III (a) What is ranging ? 6

(b) What are the instrument used in chain survey and write its use. 9

OR

IV (a) Write the principle of chain surveying. 6

(b) What are the temporary adjustments made on a compass. 9

UNIT — II

V (a) Differentiate between fore bearing and back bearing. 6

(b) The following consecutive readings are taken on a level with station A as Bench Mark R L of the Bench Mark is 200.000m.
2.190, 3.150, 1.060, 02.30, 3.430, 3.170, 3.420, 3.720, 2.390
The instrument is shifted after the reading 3.430. Enter these readings in level book and calculate the reduced levels of all points. 15

OR

VI (a) Write the parts of a dumpy level. 6

(b) The following reading were taken with levelling instrument starting with the station A as BM with RL 100.00m. The readings are 1.200, 0.908, 1.035, 0.650. Find out the RL of each point by using rise and fall method. 9

UNIT — III

VII (a) Differentiate between face left and face right observations. 6

(b) Explain reiteration method. 9

OR

VIII (a) Differentiate between latitude and departure. 6

(b) What is closing error of a traverse. Explain the Bowditch's method. 9

UNIT — IV

IX (a) What is GIS ? 6

(b) Write the brief description about distomat. 9

OR

X (a) Illustrate the applications of GPS. 6

(b) Explain about total station. 9

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