

Roll No.

120733/030733

Subject:- Surveying - I

M.M. : 100

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Length of Gunter's chain is
a) 20m b) 66ft.
c) 30m d) 100ft.
- Q.2 Which of the following is an operation of chain surveying?
a) Ranging b) chaining
c) offsetting d) All the above
- Q.3 Plotting of inaccessible point on a table, is done by
a) Intersection b) Traversing
c) Radiation d) None of the above
- Q.4 The curvature of earth is ignored in
a) Plane surveying b) Geodetic surveying
c) Both a and b d) None of the above
- Q.5 A metallic tape is made of
a) Steel b) Invar
c) Linen d) Cloth and wires
- Q.6 If the forebearing of a line AB is 190° , then the back bearing will be
a) 100° b) 90°
c) 10° d) 180°

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Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 The basic principle of surveying is to _____ whole to part.
- Q.12 Invar tape is made up of _____ and _____.
- Q.13 The principle of chain surveying is to divide the area into network of _____.
- Q.14 The bearing of a line in the direction of progress of survey is called _____.
- Q.15 The horizontal angle between the magnetic meridian and the survey line is called _____.

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- Q.16 The line of collimation and axis of telescope should _____.
- Q.17 A plumbing fork is used to _____ the plane table.
- Q.18 The bench mark established by survey department of India is known as _____.
- Q.19 Inaccessible points may be located by _____ method in plane table surveying.
- Q.20 W.C.B. are measured with _____ compass.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Explain briefly the principles of surveying.
- Q.22 Give classification of surveying based on nature of field.
- Q.23 Name the various instruments used in chain surveying.
- Q.24 Describe the various methods of chaining on a slope.
- Q.25 Explain how chain is tested and adjusted in the field.
- Q.26 What is magnetic declination? What are the different types of variation in declination? Explain.
- Q.27 What are the advantages and disadvantages of compass surveying? Write in detail.
- Q.28 Explain the temporary adjustment of Dumpy level.
- Q.29 Explain reciprocal levelling. Under what circumstances it is used? Explain.
- Q.30 Explain the procedure of plane table traversing.
- Q.31 Give advantages and disadvantages of plane table surveying.

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- Q.32 State two point problem. How it is solved? Explain.
- Q.33 Write a short note on "orientation of plane table by trough compass".
- Q.34 What type of precautions to be taken into consideration to control the errors in plane table surveying? Explain.
- Q.35 Define levelling staff and how they are classified?

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 The following bearing were observed while traversing with compass:

Line	FB	BB
AB	45°45'	226°10'
BC	96°55'	277°5'
CD	29°45'	209°10'
DE	324°48'	144°48'

Mention which stations were effected by local attraction and determine the corrected bearings.

- Q.37 The following consecutive reading were taken with a level. The level was shifted after 4th, 7th & 10th readings. The first reading was taken at a BM. of RL 160m. Draw out a page of levelling book, enter the readings & calculate the RL of all the points by height of instrument method.
1.520, 0.965, 1.4775, 1.545, 0.435, 2.545, 1.715, 1.630, 1.915, 0.860, 1.790, 1.365 and 1.135.
- Q.38 Explain the "intersection method of plane table surveying" in detail.

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