

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 The following bearing were observed for a closed traverse. (CO2)

| Line | Fore Bearing | Back Bearing |
|------|--------------|--------------|
| AB | 72°15' | 254°00' |
| BC | 105°15' | 284°15' |
| CD | 222°45' | 42°15' |
| DA | 305°45' | 125°00' |

Which stations are effected by local attraction?
Determine the corrected bearings. Find the true bearings of the line if the declination was 3°E

Q.24 The following staff readings were observed while leveling and the first reading was observed on a B.M. having Reduced Level 305.250 m. Find out RL_s of all the points by using Rise and Fall Method. Apply the usual checks also. (CO3)

| Station | Back Sight | Intermediate Sight | Fore Sight |
|---------|------------|--------------------|------------|
| 1 | 1.675 | | |
| 2 | | 1.410 | |
| 3 | | 1.735 | |
| 4 | 0.975 | | 1.330 |
| 5 | | 1.550 | |
| 6 | | 1.785 | |
| 7 | | | 1.275 |

Q.25 Explain the procedure of Intersection Method of plane table surveying with the help of a diagram. (CO4)

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2nd Sem. / Branch: Architectural Assistantship
Subject : Surveying

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 The ratio of map distance to corresponding ground distance is called as _____ (CO1)

- a) Representative factor
- b) Representation factor
- c) Reciprocating factor
- d) Recurring factor

Q.2 To find out the relative positions of points on, above or beneath the surface for the earth by means of direct and indirect measurements of distance, direction and elevation is known as _____ (CO1)

- a) Surveying
- b) Levelling
- c) Measuring
- d) Contouring

Q.3 Which line passes through a point, such that plane passing that point and the north and the south poles, intersects with surface of the earth? (CO2)

- a) True Meridian
- b) Magnetic Meridian
- c) Arbitrary Meridian
- d) Survey line

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- Q.4 Horizontal angle between true meridian and magnetic meridian is _____ (CO2)
- True bearing
 - Magnetic Bearing
 - Arbitrary bearing
 - Magnetic Declination
- Q.5 _____ is a line lying in a level surface (CO3)
- Level line
 - Horizontal line
 - Datum line
 - Plumb line
- Q.6 Which of the following is having same principle as that of determining the position in GPS? (CO5)
- Compass
 - Traversing
 - Trisection
 - Resection

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Define the term "Axis of Telescope". (CO3)
- Q.8 If a level is in permanent adjustment, its line of collimation is parallel to the axis of the _____ (CO3)
- Q.9 The calculation work is much simplified if the earth is assumed to be a spheroid instead of its actual _____ shape (CO1)
- Q.10 The magnetic needle remains horizontal at equator. (T/F) (CO2)
- Q.11 In total station, data is stored in _____ (CO5)
- Q.12 The line of sight is a line which passes through the optical centre of the objective and the intersection of cross hair which is also known as _____ (CO5)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Write a short note use of Total Station in surveying. (CO5)
- Q.14 Write the different applications of the GPS used in surveying. (CO5)
- Q.15 Write down the principles of surveying and describe them. (CO1)
- Q.16 Write down the classification of surveying based on instruments to be used for the conduct of same. (CO1)
- Q.17 Convert the following whole Circle Bearings (WCB) into Reduced Bearing (RB) (CO2)
- $75^{\circ}15'$
 - $143^{\circ}30'$
 - $213^{\circ}45'$
 - $321^{\circ}00'$
- Q.18 Differentiate between the Plane surveying and Geodetic Surveying. (CO1)
- Q.19 Write down the procedure of temporary adjustment of a dumpy level. (CO3)
- Q.20 Write the classifications of theodolite along with their use in surveying. (CO5)
- Q.21 Write down the disadvantages of plane table surveying. (CO4)
- Q.22 What is orientation in plane table surveying and how it is done? (CO4)