

- Q.28 Explain the Radiation method of Plane Table Surveying with diagram.

Q.29 Give comparison between Collimation method and Rise and Fall method of reduction level.

Q.30 Define levelling staff and explain the different types of levelling staff.

Q.31 Write the short note on-

  - Planimeter
  - Geographic Information System (GIS)

Q.32 True bearing and Magnetic bearing of a line AB are  $247^{\circ}$  and  $249^{\circ}$  respectively. Find the Magnetic Declination.

Q.33 Draw the conventional symbol for the following objects-

  - North line
  - Open well
  - Wall with gate
  - Temple
  - Building (pukka)
  - Railway line (double)

Q.34 Draw the conversion table of whole circle of bearing into Reduced bearing.

Q.35 Give the construction and uses of Ranging Rod.

## **SECTION-D**

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

- Q.36 Give comparison between Prismatic compass and Surveyor's Compass

Q.37 Draw Contour to represent the following-

  - a) Pond
  - b) Hill
  - c) Valley
  - d) Vertical cliff
  - e) Ridge

Q.38 What is local attraction? How it is detected ? Write the sources of Local attraction.

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**3rd Sem / Branch : Architectural Assistantship**

## **Subject:- Surveying**

Time : 3Hrs.

M.M. : 100

## **SECTION-A**

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

- Q.1** Which shaped lines indicate the presence of a ridge ?  
a) V-shaped                  b) L-shaped  
c) U-shaped                  d) S-shaped

**Q.2** \_\_\_\_\_ bearing is measured in the direction of survey.  
a) Back                  b) Side  
c) Fore                  d) None of these

**Q.3** Which type of tape is commonly used for measuring offset?  
a) Linen tape                  b) Steel tape  
c) Metallic tape                  d) Invar tape

**Q.4** Which branch of surveying is used to find the elevation of given points with respect to given or assured datum ?  
a) Plane Table Surveying  
b) Contouring  
c) Levelling  
d) Traversing

**Q.5** Which of the following is not required for chain surveying ?  
a) Pegs                  b) Arrows  
c) Dumpy Level                  d) 20m chain

Q.6 Which of the following is not the method of Plane table surveying?

- a) Intersection
- b) Resection
- c) Trisection
- d) Radiation

Q.7 Determining points of strategic importance is called

- a) Traverse Surveying
- b) City Surveying
- c) Military Surveying
- d) Topographic Surveying

Q.8 Plainmeter is used for measuring \_\_\_\_\_ areas

- a) Regular
- b) Irregular
- c) Curved
- d) None of these

Q.9 Theodolite is used to measure \_\_\_\_\_

- a) Horizontal angles
- b) Vertical angles
- c) Both a & b
- d) None of these

Q.10 Which tool is used for levelling?

- a) Plumps bob
- b) Spirit Level
- c) Alidade
- d) None of the these

### SECTION-B

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

Q.11 The curvature of Earth is ignored in \_\_\_\_\_ Surveying.  
(Plane/Geodetic)

Q.12 Length of One link is \_\_\_\_\_ cm. (10/20)

Q.13 Handles of chain are made up of \_\_\_\_\_ (Brass / Nickel)

Q.14 W.C.B. are measured with \_\_\_\_\_ compass. (Prismatic / Surveyor)

Q.15 F.B. and B.B. should differ by \_\_\_\_\_. ( $180^{\circ}/270^{\circ}$ )

Q.16 Contours can be found in a \_\_\_\_\_ map  
(Topographical / Political)

Q.17 There are \_\_\_\_\_ methods of contouring. (2/4)

Q.18 The datum adopted for India is mean sea level at \_\_\_\_\_ (Karachi / Mumbai)

Q.19 The fiducial edge of alidade should be \_\_\_\_\_  
(straight/ Curved)

Q.20 GPS is \_\_\_\_\_ (Global Positioning system / Global political survey)

### SECTION-C

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

Q.21 Convert the following reduced bearing in whole circle bearing.

- a)  $N31^{\circ}E$
- b)  $S42^{\circ}15'W$
- c)  $N22^{\circ}30'W$
- d)  $S27^{\circ}45'E$

Q.22 Define levelling. What is the purpose of levelling? Write the principle of levelling.

Q.23 List the six advantages of plane Table Surveying.

Q.24 Define the following:-

- a) True Meridian
- b) Magnetic Meridian
- c) Magnetic Dip

Q.25 Define surveying. What are the object of surveying?  
Write the principles of surveying.

Q.26 Define the following:-

- a) Gunter's Chain
- b) Engineer's Chain
- c) Revenue Chain

Q.27 The length of a surveying line measured with 20m chain was found to be 520m. Find the true length of line if the chain used was 10cm too long.