



Work sheet(Unit wise Objective)

UNIT-I: Introduction and Basic Concepts of Surveying

Part – A: Multiple Choice Questions (20 MCQs)

1. Surveying is the science of

- A) Constructing buildings
- B) Measuring and mapping the earth's surface
- C) Testing concrete
- D) Designing highways

Answer: B

2. The primary objective of surveying is to

- A) Measure rainfall
- B) Prepare plans and maps
- C) Test soil strength
- D) Design foundations

Answer: B

3. Surveying is classified into

- A) Plane and Geodetic Surveying
- B) Road and Railway Surveying
- C) Bridge and Tunnel Surveying
- D) Land and Water Surveying

Answer: A

4. The principle of surveying is

- A) Measure once
- B) Work from whole to part
- C) Work from part to whole
- D) Estimate distances

Answer: B

5. Which type of surveying considers the curvature of the earth?

- A) Plane Surveying
- B) Geodetic Surveying
- C) Chain Surveying
- D) Compass Surveying

Answer: B

6. A map scale represents the ratio between

- A) Area and volume
- B) Ground distance and map distance
- C) Height and width
- D) Time and distance

Answer: B

7. A Representative Fraction (RF) of 1:1000 means

- A) 1 cm on map = 1000 cm on ground
- B) 1000 cm on map = 1 cm on ground
- C) 1 m on map = 1 km on ground
- D) None of these

Answer: A

8. Shrinkage of a map occurs due to

- A) Rainfall
- B) Expansion of paper
- C) Contraction of drawing paper
- D) Printing error

Answer: C

9. Conventional symbols are used to represent

- A) Survey instruments
- B) Ground features on maps
- C) Buildings only
- D) Roads only

Answer: B

10. Which of the following is a surveying accessory?

- A) Compass
- B) Ranging Rod
- C) Telescope
- D) Microscope

Answer: B

11. The process of fixing intermediate points on a straight line is called

- A) Chaining
- B) Ranging
- C) Levelling
- D) Traversing

Answer: B

12. Which instrument is commonly used for direct distance measurement?

- A) Dumpy Level
- B) Chain
- C) Theodolite
- D) Plane Table

Answer: B

13. The standard metric chain commonly used is

- A) 10 m
- B) 20 m
- C) 25 m
- D) 40 m

Answer: B

14. Which correction is applied when the tape length is incorrect?

- A) Temperature correction
- B) Pull correction
- C) Tape length correction
- D) Slope correction

Answer: C

15. Which method is an approximate method of distance measurement?

- A) Chaining
- B) Taping
- C) Pacing
- D) Electronic Distance Measurement

Answer: C

16. A Prismatic Compass measures

- A) Vertical angle
- B) Horizontal bearing
- C) Elevation
- D) Distance

Answer: B

17. Whole Circle Bearing is measured in the clockwise direction from

- A) East
- B) South
- C) North
- D) West

Answer: C

18. Local attraction affects

- A) Chain length
- B) Magnetic bearings
- C) Levels
- D) Contours

Answer: B

19. Magnetic declination is the angle between

- A) Magnetic north and true north
- B) East and west
- C) Horizontal and vertical planes
- D) Zenith and nadir

Answer: A

Part B: Fill in the Blanks (Answers Beside the Questions)

1. Surveying is the science of measuring and _____ (**Mapping**) the earth's surface.
2. The fundamental principle of surveying is to work from _____ (**Whole**) to part.
3. In plane surveying, the earth is assumed to be _____ (**Flat**).
4. The ratio of map distance to ground distance is called _____ (**Scale**).
5. Shrinkage of maps occurs mainly due to _____ (**Contraction**) of paper.
6. Standard symbols used on maps are called _____ (**Conventional**) symbols.
7. A _____ (**Ranging**) rod is used to mark survey stations.
8. The process of locating points on a straight line is known as _____ (**Ranging**).
9. The commonly used metric chain has a length of _____ (**20 m**).
10. Steel tapes provide more _____ (**Accuracy**) than chains.
11. Distance measured by counting footsteps is called _____ (**Pacing**).
12. Incorrect tape length requires _____ (**Tape length**) correction.
13. The instrument used for measuring magnetic bearings is the _____ (**Prismatic**) compass.
14. Bearings are measured with respect to the _____ (**Magnetic**) meridian.
15. The angle between two survey lines is called the _____ (**Included**) angle.
16. Local attraction is caused by nearby _____ (**Magnetic**) objects.
17. The angle between true north and magnetic north is called magnetic _____ (**Declination**).
18. The vertical inclination of the magnetic needle is called magnetic _____ (**Dip**).
19. Geodetic surveying considers the _____ (**Curvature**) of the earth.
20. Surveying is the first step in every _____ (**Civil**) engineering project.