

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

23-0005-AB

TEST BOOKLET

PAPER-II

SURVEYOR

Time Allowed: 1 hr

Maximum Marks: 50

INSTRUCTIONS TO CANDIDATES

Read the instructions carefully before answering the questions: -

1. This Test Booklet consists of 08 (eight) pages and has 50 (fifty) questions.
2. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET *DOES NOT* HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
3. Please note that it is the candidate's responsibility to fill in the Roll Number and other required details carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/ discrepancy will render the OMR Answer Sheet liable for rejection.
4. Do not write anything else on the OMR Answer Sheet except the required information. Before you proceed to mark in the OMR Answer Sheet, please ensure that you have filled in the required particulars as per given instructions.
5. Use only Black Ball Point Pen to fill the OMR Answer Sheet.
6. Each question comprises of 04 (four) responses (answers). You are required to select the response which you want to mark on the OMR Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose *ONLY ONE* response for each item.
7. After you have completed filling in all your responses on the OMR Answer Sheet and the examination has concluded, you should hand over to the Invigilator *only the OMR Answer Sheet*. You are permitted to take the Test Booklet with you.
8. Penalty for wrong answers in case of Multiple Choice based Questions:
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE.
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to the question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to the question.
 - (iii) If a question is left blank. i.e., no answer is given by the candidate; there will be no penalty for that question.

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SURVEYOR

Choose the correct answer for the following questions: (1 x 50 = 50)

1. For positioning of the drawing sheet on the drawing board, which of the following is used?
 - (a) The grid system
 - (b) Folding marks
 - (c) Borders
 - (d) Orientation marks

2. The instruments used for enlargement and reduction of maps are:
 - (a) Pantograph, Magnetic Compass, Eidograph
 - (b) Pantograph, Proportional Compass, Eidograph
 - (c) Rotometer, Proportional Compass, Eidograph
 - (d) Rotometer, French Curve, Eidograph

3. CHA command in AutoCAD is used for?
 - (a) Managing layers in a drawing
 - (b) Exploding objects
 - (c) Adding rounded corners to sharp edges
 - (d) Adding slant corners to sharp edges

4. Which of the following classification in surveying is based on the instrument used?
 - (a) Traverse surveying
 - (b) Cadastral surveying
 - (c) Topographic surveying
 - (d) Hydrographic surveying

5. Compass surveying is not recommended for which of the following areas?
 - (a) Very large areas
 - (b) Very small areas
 - (c) Areas with undulating contours
 - (d) Local attraction suspected areas

6. The last step that is followed in chain surveying is _____.
 - (a) Fixing
 - (b) Reconnaissance
 - (c) Running survey lines
 - (d) Marking

7. The name of the most widely used method of plane tabling is -
 - (a) Radiation
 - (b) Intersection
 - (c) Traversing
 - (d) Resection

8. Which of the following does not belong to the instruments of plane table?
 - (a) Spirit level
 - (b) Plumb bob
 - (c) Compass
 - (d) Theodolite

9. _____ is an integral part of the theodolite and is mounted on a spindle known as a horizontal axis.
- (a) Telescope
 - (b) Index frame
 - (c) Horizontal plane Vernier
 - (d) Horizontal circle
10. Cross sectional area of a river is measured by -
- (a) Width multiplied by the depth of the river
 - (b) Width multiplied by the length of the river
 - (c) Length multiplied by the depth of the river
 - (d) None of the above
11. All measurements contain some degree of error. Out of the given options which is/are considered to be measurement errors? 1. **Human errors** 2. **Environmental characteristics** 3. **Instrument errors**
- (a) Only 1 and 3
 - (b) Only 2 and 3
 - (c) Only 1 and 2
 - (d) All 1, 2 and 3
12. Single stroke lettering means which of the following?
- (a) One stroke writing without lifting the pencil
 - (b) Writing with hard one diameter lead pencil
 - (c) Uniformity in the letters as obtained in a single stroke of the pencil
 - (d) Writing the letters in cursive
13. In theodolites, two standards resemble the letter _____ and are mounted on the upper plates.
- (a) U
 - (b) V
 - (c) T
 - (d) A
14. The Differential Global Positioning System (DGPS) is more accurate technology than its antecedent Global Positioning system (GPS). The accuracy in DGPS is improved by _____.
- (a) Using two receivers instead of using one
 - (b) Using three receivers instead of two
 - (c) Using no receivers
 - (d) None of the above
15. Which of the following is not a part of hydrographic surveying?
- (a) Laying an Alignment
 - (b) Making underground investigations
 - (c) Nautical charts for navigation
 - (d) Establishing mean sea level

16. Among the following, which is not a principle of the topographic survey?
- (a) Establishing horizontal and vertical control
 - (b) Orientation of each survey
 - (c) Orientation of only main station
 - (d) Work with most accurate methods
17. The process of measuring depth below the water surface is called _____.
- (a) Sounding
 - (b) Chaining
 - (c) Traversing
 - (d) Compass traversing
18. The number of units available in AutoCAD is:
- (a) 3
 - (b) 4
 - (c) 5
 - (d) 6
19. Which methodology involves the usage of Vernier scale?
- (a) Horizontal angle
 - (b) Direction
 - (c) Vertical angle
 - (d) Marine survey
20. Which of the following is an error occurred due to sighting?
- (a) Instrumental errors
 - (b) Defective orientation
 - (c) Personal errors
 - (d) Natural errors
21. The survey which relies on measurements and deeds is known as –
- (a) Hydrographic
 - (b) Cadastral
 - (c) Geodetic
 - (d) Topographic
22. In the conduct of a road survey which of the following must be considered?
- (a) Density
 - (b) Alignment of the curves
 - (c) Specific gravity
 - (d) Atmospheric condition
23. Which of the following softwares is useful in the conduct of road survey?
- (a) GIS
 - (b) STAAD Pro
 - (c) Revit
 - (d) RS

24. In which of the following cases contour lines of different elevations can intersect?

1) Caves, 2) Vertical cliffs, 3) Hills, 4) Overhanging Cliff

- (a) 1) and 2)
- (b) Only 1)
- (c) 1), 2) and 4)
- (d) 1) and 4)

25. The inclination of the magnetic needle with the horizontal is known as -

- (a) Closing error
- (b) Sighting error
- (c) Dip
- (d) Declination

26. For locating inaccessible objects which of the following methods is used?

- (a) Intersection
- (b) Resection
- (c) Traversing
- (d) Radiation

27. Consider the following methods of GPS measurement -

1. Static GPS Baseline
2. RTK Observations
3. CORS

Which of the following are used by surveyors?

- (a) Only 1 and 2
- (b) Only 2 and 3
- (c) Only 1 and 3
- (d) All 1, 2 and 3

28. On a diagonal scale how many possible dimensions can be read?

- (a) 2
- (b) 3
- (c) 4
- (d) 5

29. The first reading from a level station is _____.

- (a) Back sight
- (b) Fore sight
- (c) Mid sight
- (d) None of the above

30. What is the full form of ETS?

- (a) Electronic Tool Station
- (b) Electronic Total Station
- (c) Electromagnetic Total Station
- (d) Electronic Tools and Supplies

31. A surveyor measured the distance between two points on the plan drawn to a scale of 1 cm is equal 40 m and the result was 468 m. But, actual scale is 1 cm = 20 m. Find the true distance between the two points.
- (a) 992 m
 - (b) 936 m
 - (c) 987 m
 - (d) 967 m
32. A clinometer is used for:
- (a) Setting out right angles
 - (b) Defining natural features
 - (c) Correction of lines
 - (d) Measuring the angle of slope
33. Determine the scale of the map if the distance on the map is given as 2 cm which is equal to 1 km on the ground.
- (a) 1: 50000
 - (b) 1;5000
 - (c) 1:100000
 - (d) 1:500
34. The two main cartographical methods used for reduction and enlargement of maps are called:
- (a) Rectangle method and square method
 - (b) Square method and method of similar triangle
 - (c) Method of similar triangle and rectangle method
 - (d) Method of similar square and rhombus method
35. An imaginary line drawn on a map to join the places having the same height is known as:
- (a) Isobars
 - (b) Ox-bow lake
 - (c) Contours
 - (d) Profiles
36. A mile is equivalent to _____ inches.
- (a) 66,330
 - (b) 63,360
 - (c) 63,630
 - (d) 66,036
37. Representative Fraction (RF) is also known as -
- (a) Statement of scale
 - (b) Graphical Scale
 - (c) Plain Scale
 - (d) International Scale
38. Refraction correction _____ curvature correction.
- (a) Adds to
 - (b) Has no effect on
 - (c) Completely eliminates
 - (d) Partially eliminates

39. To increase the sensitivity of a bubble tube we have to -
- (a) increase the viscosity of liquid
 - (b) decrease the radius of curvature of tube
 - (c) increase the diameter of the tube
 - (d) decrease the length of bubble
40. Which of the following comes under the preliminary survey of the railway line?
- (a) Establishment of R.L
 - (b) Establishment of bench marks
 - (c) Establishment of station points
 - (d) Establishment of intervals
41. The object of Reconnaissance survey is -
- (a) To determine the technical feasibility of proposal
 - (b) To determine the economical feasibility of proposal
 - (c) Only 'a'
 - (d) Both 'a' and 'b'
42. Which of the following are the methods of interpolation of contours?
- 1. Estimation method
 - 2. Arithmetic calculation method
 - 3. Graphical method
- (a) Only 1 and 2
 - (b) Only 2 and 3
 - (c) Only 1 and 3
 - (d) All 1, 2 and 3
43. How many categories of foundations are there which are used to transfer the load of the building to the ground?
- (a) 3
 - (b) 4
 - (c) 5
 - (d) 2
44. Which of the following is a non combustible building material with low coefficient of expansion?
- (a) Brick
 - (b) Glass
 - (c) Asbestos cement
 - (d) Sandstone
45. The combination of two circular curves having their centre of curvature on the opposite sides of the common tangent is -
- (a) Simple Curve
 - (b) Reverse Curve
 - (c) Compound Curve
 - (d) Transition Curve
46. In orthographic projection, each projection view represents how many dimensions of an object?
- (a) 0
 - (b) 1
 - (c) 2
 - (d) 3

47. The meaning of the conventional symbol "Square" in topographic survey is -
- (a) Stability, tradition, security, straightforward
 - (b) Transformation, movement, balance
 - (c) Relationships, connectedness
 - (d) Growth, evolution, transformation
48. Consider the values of latitudes as 223.5 m and 65.31 m and the values of meridians as 16.8 m and 24.67m. Find the area using D.M.D method.
- (a) 2268.99 sq. m
 - (b) 2862.99 sq. m
 - (c) 2682.99 sq. m
 - (d) 28865.99 sq. m
49. A tool used in spotting manually the position of towers or poles on the route profile -
- (a) Sag template
 - (b) Bar template
 - (c) Pole template
 - (d) None of the above
50. Consider the following type of chains:
1. Metric chain 2. Gunter's chain 3. Engineer's chain 4. Revenue chain 5. Steel band chain.
Which of these are used in chain surveying?
- (a) 1, 2, 3 and 4
 - (b) 1, 3, 4 and 5
 - (c) 1, 2, 4 and 5
 - (d) 1,2,3,4 and 5
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