Series

A

CODE : 17

Write here Roll Number and Answer Sheet No.

Question Booklet Sl. No.

A

Roll No.

Answer Sheet No.

Duration : 1 Hour

Total Marks : 100

Declaration by Invigilator :
I Certify that I have checked that the Roll Number and the Answer Sheet Number written by the Candidate on the question paper and the OMR Sheet are correct and the Answer Sheet Number matches the Question Booklet Number exactly.

Signature of the Invigilator with Name

Declaration by andidate :
I undertake not to employ any unfair means in this exam. I have checked the Question Booklet Number and the Answer Sheet Number and both are identical and have been correctly entered by me wherever indicated.

Signature of the Candidate with Name

Read the following instructions carefully before you begin to answer the questions.

IMPORTANT INSTRUCTIONS TO CANDIDATES

1. The Roll No. is a **7** digit No., the candidate needs to circle the Roll No. in the Answer Sheet.
2. The appropriate Circle should be shaded for Roll No. This should be done carefully because only the shaded circles are scanned.
3. Valuation of Answer Sheet will be done on the computer. Candidate should not make any stray marks on the Answer Sheet, tamper with or mutilate it. Otherwise it will not be evaluated.
4. Please check all the pages of the Booklet carefully. In case of any defect, please ask the Invigilator for replacement of the Booklet.
5. You must not tear off or remove any sheet from this Booklet. The Answer Sheet must be handed over to the Invigilator before you leave the Examination Hall.
6. ll questions are compulsory and each Question carries **2** marks.
7. **The paper carries negative marking. For each wrong answer 0.50 mark will be deducted.**
8. This Booklet contains 50 questions.
9. Use of Calculator/Palmtop/Laptop/Other Digital Instrument/Mobile/Cell Phone/Pager is **not** allowed.
10. andidates found guilty of misconduct/using unfair means in the Examination Hall will be liable for appropriate penal/legal action.
11. **No Rough Work is to be done on the Answer Sheet and only single OMR Answer Sheet will be provided.**
12. This booklet contains **12** pages.
13. **Directions** : Each question or incomplete statement is followed by four alternative suggested answers or completions. In each case, you are required to select the one that correctly answers the question or completes the statement and blacken (●) appropriate circle a, b, c or d by Blue / Black Ball-Point Pen provided by the board against the question concerned in the Answer Sheet.
14. Mark your answer by shading the appropriate circle against each question. The circle should be shaded completely without leaving any space. The correct method of shading is given below.

Wrong Method	Wrong Method	Wrong Method	Correct Method
○ ⊗ ○ ○	○ ⊘ ○ ○	○ ◉ ○ ○	○ ● ○ ○

The Candidate must mark his/her response after careful consideration, as it is not possible to change the response once it is marked.

15. There is only one correct answer to each question. You should blacken (●) the circle of the appropriate column, viz., a, b, c or d. If you blacken (●) more than one circle against any one question, the answer will be treated as wrong.
16. Use the space for rough work given at the beginning of the Question Booklet only and not on the Answer Sheet.
17. **You are NOT required to mark your answers in this Booklet. All answers must be indicated in the Answer Sheet only.**

DO NOT WRITE HERE

SPACE FOR ROUGH WORK

SPACE OR ROUGH WORK

1. For rough and speedy work, distances are measured by
   (a) Scale (b) Pacing
   (c) Rope (d) Stick

2. The chainman at the forward end of the chain is called
   (a) Leader (b) Header
   (c) Follower (d) Boss

3. The chain is marked by tallies at every _____ length and small brass rings at every _____ length without having difficulty in reading the chain.
   (a) 1 m, 5 m (b) 5 cm, 1 cm
   (c) 5 m, 1 m (d) 0.5 m, 1 cm

4. Ranging rod is painted in red and white or black and white in _____ band width.
   (a) 15 cm (b) 20 mm
   (c) 30 cm (d) 20 cm

5. While chaining along a sloping ground _____ is used to transfer the points on the ground.
   (a) Ranging rod (b) Arrow
   (c) Plumb bob (d) Pegs

6. In metric chain, the _____is the distance between the centres of two consecutive middle rings.
   (a) Length of link (b) Length of tallies
   (c) Length of leg (d) Length of handle

7. The process of measuring lateral distances from the chain line to the objects which are to be plotted is called as
   (a) Chaining (b) Levelling
   (c) Offsetting (d) Plotting

8. _____ is a mechanical device which is used for measuring of the area of any irregular shape of the figure.
   (a) Alidade (b) Planimeter
   (c) Square prism (d) Plane table

9. _____ is the most convenient portable magnetic compass, which can either be used as a hand instrument or can be fitted on a tripod.
   (a) The surveyors compass
   (b) The prismatic compass
   (c) Trough compass
   (d) The magnetic compass

10. The horizontal angle between a line and the true meridian is called true bearings of the line. It is also called as
   (a) Arbitrary
   (b) Latitude
   (c) Azimuth
   (d) Altitude

11. In whole circle bearing system, the bearings of a line, is measured from the magnetic north in clockwise direction. The value of the bearing thus varies from
   (a) 0° to 90°
   (b) 0° to 270°
   (c) 0° to 180°
   (d) 0° to 360°

12. _____ is similar to the ranging rod with a hook at the top.
   (a) Cross staff
   (b) Levelling rod
   (c) Offset rod
   (d) Arrows

13. If the magnetic bearing of the line is N 37° W and the magnetic declination is 2° E. Find the true bearing.
   (a) S 37° W
   (b) N 39° W
   (c) N 37° E
   (d) N 35° W

14. Which of the following is not external storage device ?
   (a) Magnetic tapes
   (b) Zip drives
   (c) Removable hard disks
   (d) Memory

15. The _____ provides a single, compact placement for operations that are relevant to the current workspace.
   (a) Ribbon
   (b) Interface
   (c) Menu
   (d) Modify

16. The instruction to be input into a drafting software for making a drawing, modifying, copying, saving, etc. are called

(a) Accelerate
(b) Format
(c) Entity
(d) Commands

17. In AutoCad if you erase one or more objects by mistake, you can use the _____ command to restore them to the drawing.

(a) REDO
(b) CTRL-Y
(c) OOPS
(d) CTRL-S

18. The _____ is a straight edge with some form of sighting device.

(a) Alidade
(b) U frame
(c) Telescope
(d) Trough compass

19. For large scale works levelling of table can be done by using

(a) Water level
(b) Auto level
(c) Spirit level
(d) Plumb bob

20. Radiation method of Plane table survey is suitable for the survey of small areas which can be commanded from _____ station.

(a) Two
(b) Single
(c) Three
(d) Four

21. Which of the following is a disadvantage of plane table survey ?

(a) The angles and linear measurement are not observed since they are obtained graphically
(b) Checking of plotted details can be done easily on the spot itself
(c) This survey cannot be done in dense wooded areas
(d) It is less costly than other types of surveys

22. Principle of levelling is to obtain a _____ from which vertical distances of the points above or below this line are found.

(a) Horizontal line of sight
(b) Vertical line of sight
(c) Inclined line of sight
(d) Inverted line of sight

23. Least count of levelling staff is

(a) 5 cm
(b) 10 mm
(c) 50 mm
(d) 5 mm

24. In Dumpy level _____ operation is done to make the cross-hairs appear distinct and clearly visible.

(a) Focussing the eye piece
(b) Focussing the objective
(c) Focussing the bubble
(d) Focussing the lens

25. In Height of collimation method, formula for Arithmetical check is

(a) Σ BS – Σ IS = Last RL – First RL
(b) Σ BS – Σ FS = Last RL – First RL
(c) Σ IS – Σ FS = Last RL – First RL
(d) Σ BS – Σ FS = First RL – Last RL

26. If RL of benchmark is 100.00 and back sight is 0.785, then Height of the instrument is

(a) 100.875
(b) 99.12
(c) 100.785
(d) 100.58

27. Which of the following is not a instrumental error in levelling ?

(a) Error due to defective bubble tube
(b) Error due to refraction
(c) Levelling staff of incorrect graduation
(d) Defective joint of Telescopic staff

28. For town planning schemes, reservoirs landscape grading contour interval in meter is _____ for a scale of 1cm = 50 m to 100 m.

(a) 0.2 to 1
(b) 2 to 5
(c) 1 to 2
(d) 0.5 to 2

29. theodolite is said to be transit one when its telescope can be revolved through _____ in a vertical plane about its horizontal axis, thus turning the telescope in exactly opposite direction.

(a) 90° (b) 270

(c) 180° d) 360°

30. In theodolite, the vertical circle is divided into _____ quadrants from 0° to 90° in both the directions.

(a) Four (b) Two

(c) One (d) Three

31. _____ is an imaginary line joining the intersection of the cross hairs with optical centre of the object glass and its continuation.

(a) Line of collimation (b) Vertical axis

(c) Horizontal axis (d) Trunnion line

32. In theodolite, when the telescope is rotated clockwise it is called

(a) Write swing (b) Left swing

(c) Dot swing (d) Right swing

33. " is the least count of _____ instrument.

(a) Dumpy level (b) Theodolite

(c) ompass (d) Levelling staff

34. If the angle measured is above the horizontal line, then it is called angle of

(a) Elevation (b) epression

(c) Focus (d) Sight

35. A _____ is a series of connected lines whose lengths and directions are known.

(a) Traverse (b) Polygon

(c) Quadrilateral (d) Bearing

36. person performing operation to obtain the requirement measurements, distance, directions, etc. to prepare plan or map is known as

(a) Mason (b) Surveyor

(c) Carpenter (d) Painter

37. In British unit of measurement 1 furlong =

(a) 1 fathoms (b) 1 mile

(c) 10 chain (d) 4 pole

38. Metric chain is made in length of 20 m and 30 m. The length of one link is

(a) 20 mm (b) 2 cm

(c) 20 m (d) 20 cm

39. Invar tape is made of an alloy steel (64%) and nickle (36%) and available in _____ lengths.

(a) 5 m, 10 m and 15 m

(b) 30 m, 50 m and 100 m

(c) 3 m, 9 m and 12 m

(d) 20 m, 40 m and 60 m

40. A benchmark is the reference point of known

(a) Temperature (b) Angle

(c) Elevation (d) Distance

41. Full form of G.T.S. is

(a) Ground Trigonometrical Survey

(b) reat Trigonometrical Survey

(c) Global Trigonometrical Survey

(d) Great Topographic Survey

42. rrow is made up of 4 mm steel wire and _____ long.

(a) 40 cm (b) 400 cm

(c) 40 mm (d) 50 cm

43. A field was surveyed by a chain and the area was found to be 127.34 hectares. If the chain used in the measurement was 0.8% too long. What is the correct area of the field ?

(a) 125.386 ectares (b) 129.386 hectares

(c) 129 ectares (d) 119.386 hectares

44. The sum of all included or interior angles in a closed traverse is compared to the theoretical sum, given by the equation

(a) $(2n - 2) \times 90°$ (b) $(2n - 4) \times 90°$

(c) $(2n+4) \times 90°$ (d) $n - 4) \times 90°$

45. Survey is covering area _____ may be treated as plane surveying.

(a) 20 sq.km (b) 2 sq.km

(c) 2000 sq.km (d) 200 sq.km

46. t the end of linen tape provided with _____ handle which is included in the total lengths of the tape.

(a) Copper (b) Steel

(c) Brass (d) Aluminium

47. The axes of the spirit levels mounted on the alidade should be _____to the base of the alidade.

(a) Parallel

(b) Perpendicular

(c) Inclined

(d) None of the above

48. Whenever the levelling operation is carried out and number of observations is taken in the field, they are to be entered in a note book called a

(a) ata Book (b) Level Book

(c) Survey Book (d) Filed Book

49. _____may be defined as a line lying on the surface of the ground with uniform inclination to the horizontal at all points on it.

(a) Slope (b) Contour gradient

(c) Inclination (d) Depression

50. In indirect method of levelling the difference in elevation of the points is determined from the observed _____ and the measured distances.

(a) Horizontal angles (b) Inverted angles

(c) Vertical angles (d) Reflux angles

