Objective questions for Practical Examination (CBCS scheme)

Introduction to Surveying –CE-112

1. The curvature of the earth's surface, is taken into account only if the extent of survey is more than

i) 100 Sq.km ii) 160 Sq.km iii) 200 Sq.km iv) 250 Sq.km

2. The difference in the lengths of an arc and its subtended chord on the earth's surface for a distance of 18-20 km is only

i) 1 cm ii) 5 cm iii) 10 cm iv) 100 cm

3. In geodetic surveys, higher accuracy is achieved if

i) Curvature of the earth surface is ignored

ii) Curvature of earth surface is taken into account

iii) Angles between the curved lines are treated as plane angles

iv) None of the above

4. Hydrographic surveys deal with the mapping of

i) Large water bodies ii) Heavenly bodies iii) Mountainous region iv) movement of roads

5. Surveys which are carried out to depict mountains, rivers, water bodies, wooded areas and other cultural details are known as

i) Cadastral surveys ii) City surveys iii) Topographical surveys iv) Guide map surveys v) Plane surveys

6. Surveys which are carried out to provide a national grid of control for preparation of accurate maps of large areas, are known as

i) Plane surveys ii) Geodetic surveys iii) Geographical surveys iv) Topographical surveys

7. The main principle of surveying is to work

i) From part to the whole ii) from whole to part iii) From higher level to lower level iv) From lower level to higher level

8. EDM instruments are used for measurement of

i) Short distances ii) medium distances iii) Long distances iv) None of the above

9. Remote sensing is defined as the collection of information about a subject

i) with direct physical contact ii) without direct physical contact iii) either i) or ii)

iv) None of the above

10. In the D120 distomat instrument, by touching a selector key, distances can be displayed in metres or feet. The least count is

i) 1 mm ii) 2 mm iii) 3 mm iv) 4 mm

11. Short offsets are measured with

i) An ordinary chain ii) An invar tape iii) A metallic tape iv) A steel tape

12. Greater accuracy in linear measurements is obtained by

i) Tacheometry ii) Direct chaining iii) Direct taping iv) All the above

13. In which chain, each metre length is divided into 5 links?

i) 20 m ii) 30 m iii) Both iv) None of the above

14. While measuring a line between two stations A and B intervened by a raised ground,

i) Vision gets obstructed ii) Chaining gets obstructed iii) Vision and chaining get obstructed iv) None of the above.

15. Accurate measurement of distance are made with

i) Chain ii) Invar tape iii) Metallic tape iv) Steel Tape

16. In chain surveying a tie line is primarily provided

i) To check the accuracy of the survey

ii) To take offsets for detailed survey

iii) To avoid long offsets from chain lines

iv) To increase the number of chain lines.

17. In chain surveying fieldwork is limited to

i) Linear measurements only

ii) Angular measurements only

iii) Both linear and angular measurements

iv) All the above

18. Check lines in chain surveying are essentially required

i) To plot chain lines

ii) To plot offsets

iii) To indicate the correctness of the survey work

iv) To increase the turn out

19. A well conditioned triangle does not have any angle less than

i) 20° ii) 30° iii) 45° iv) 60°

20. Chain surveying is well adopted for

i) Small areas in open ground

ii) Small areas with crowded details

iii) Large areas with simple details

iv) Large areas with difficult details

21. The prismatic compass reads

i) WCB ii) RB iii) Quadrantal bearing iv) None of the above

22. Fore and back bearings of a line should differ by

i) 90° ii) 180° iii) 360° iv) None of the above

23. The sum of the interior angles of a closed traverse is equal to

i) (2n-4) x 90° ii) (2n+4) x 90° iii) (n-4) x 90° iv) None of the above.

24. A negative declination shows that the magnetic meridian is to the

i) West of the true meridian

ii) East of true meridian

iii) South of true meridian

iv) North of true meridian

25. In the Quadrantal bearing (Q.B.) system, a line is said to be free from local attraction, if the forward and backward bearing are

i) Numerically equal with same quadrant

ii) Numerically equal with opposite quadrant

iii) Difference is 90 algebraically

iv) The WCB's are same.

26. In the WCB (whole circle bearing) system, a line is said to be free from local attraction if the difference between Fore bearing and Back bearing is

i) 270° ii) 90° iii) 0° iv) 180°

27. The least count of the prismatic compass is

i) 15’ ii) 30’ iii) 45’ iv) None of the above

28. The magnetic bearing of a survey line at any place

i) Remains constant ii) Changes systematically iii) Varies differently in different months of the year iv) Always greater than true bearing

29. The magnetic meridian at any point, is the direction indicated by a freely suspended

i) Magnetic needle ii) Properly balanced magnetic needle iii) properly balanced and uninfluenced by local attraction iv) Magnetic needle over an iron pivot

30. The instrument which is used in plane table for obtaining horizontal and vertical distances directly without resorting to chaining, is known as

i) Plane alidade ii) Telescopic alidade iii) Clinometer iv) Tachometer

31. A relatively permanent point of reference, whose elevation is known, with respect to any assumed datum is known as

i) Benchmark ii) Datum iii) Level iv) None of the above

32. The first reading from a level station is

i) Foresight ii) Intermediate sight iii) Back sight iv) Any sight

33. A line which passes through the optical centre of the objective and also through the intersection of the cross hair is called

i) Line of sight ii) Line of collimation iii) Axis of telescope iv) None of the above

34. Mean sea level is a

i) Benchmark ii) Datum iii) Level iv) None of the above

35. Reduced level (R.L.) of a point is its elevation with reference to

i) ground level ii) Slope level iii) Datum iv) All of the above

36. An operation for determining the relative elevations of different points on the surface of the earth is known as

i) Simple levelling ii) Profile levelling iii) Differential levelling iv) Longitudinal levelling

37. A level line is a

i) Line parallel to the mean spheroidal surface of earth.

ii) Line normal to plumb line at all points

iii) Horizontal line

iv) Both i) and ii) above

38. A staff reading taken on a benchmark or change point is known as

i) Backsight ii) Foresight iii) Intermediate sight iv) None of the above

39. The rise and fall method of levelling provides a complete check on

i) Backsight ii) foresight iii) Intermediate sight iv) All of the above

40. When it is not possible to set up the level, midway between the two points, then the difference in elevation between them is measured by

i) Fly levelling ii) Precise levelling iii) Differential levelling iv) Reciprocal levelling

41. A planimeter is used for measuring

i) Volume ii) Area iii) Length iv) None of the above

42. Simpson's rule can be applied only if the number of ordinates is

i) Odd ii) Even iii) Both i) and ii) iv) None of the above

43. For computation of volumes, if the effect of curvature of earth is taken into account the volume obtained is

i) Straight volume ii) Curved volume iii) Both i) and ii) iv) None of the above

44. The area of multi level sections are calculated by

i) Coordinate method ii) Prismoidal formula iii) Trapezoidal formula iv) None of the above

45. The volume of earth work computed by the prismoidal formula as compared to that by the trapezoidal formula is

i) Small ii) Large iii) Equal iv) None of the above

46. The volume of a reservoir is calculated by

i) Prismoidal formula ii) Trapezoidal formula iii) Both i) and ii) iv) None of the above

47. A mass diagram is used to determine the

i) Minimum cost for overhaul

ii) Economic cost for overhaul

iii) Economical expenditure for borrow

iv) All of the above

48. The error in the volume computation by irregular cross-section depends upon the

i) Scale of map

ii) Contour Interval

iii) Precision in contour showing

iv) All of the above

49. The smallest unit of area of Urban properties is

i) Sq.metre ii) Acres iii) Metre iv) None of the above

50. The method of levelling used to carry out the reconnaissance of area is

i) Check levelling ii) Fly levelling iii) Profile levelling iv) Simple levelling

Answer Key

1. iv)	2. iii)	3. ii)	4. i)	5. iii)
6. ii)	7. ii)	8. iii)	9. ii)	10. i)
11. iii)	12. i)	13. iii)	14. i)	15. ii)
16. iii)	17. i)	18. iii)	19. ii)	20. i)
21. i)	22. ii)	23. i)	24. i)	25. ii)
26. iv)	27. ii)	28. iii)	29. iii)	30. ii)
31. i)	32. iii)	33. ii)	34. ii)	35. iii)
36. iii)	37. i) & ii)	38. i)	39. iv)	40. iv)
41. ii)	42. i)	43. iv)	44. ii)	45. ii)
46. i)	47. iv)	48. iv)	49. i)	50. ii)