Question : 1 Which of the following statements in respect of a map A having scale 1 : 1000 and another map B having scale 1 : 5000 is true?

OP 1 : Map a is a large scale map compared to map B.
OP 2 : Map B is a large scale map compared to map A.
OP 3 : Map B is a more detailed map compared to map A.
OP 4 : None of the above

Question : 2 A scale representing either three units or only one unit and its fractions upto second fractions upto second place of decimal point is -

OP 1 : Diagonal scale
OP 2 : Comparative scale
OP 3 : Vernier scale
OP 4 : Shrunk scale

Question : 3 In case of a direct vernier scale-

OP 1 : Graduations increase in opposite direction in which graduations of the main scale increase
OP 2 : Smallest division is longer than smallest division of the main scale 1
OP 3 : Graduations increase in the same direction in which graduations of the main scale increase
OP 4 : None of these

Question : 4 A surveyor measures a distance between two points on a map of representative fraction of 1:100 is 60 m. But later he found that the used wrong representative fraction of 1:50. What is the correct distance between the two points?

OP 1 : 30
OP 2 : 45
OP 3 : 90
OP 4 : 120

Question : 5 Which of the following scale of the map is not affected due to shrinking of map ?

OP 1 : Engineer's scale
OP 2 : Graphical scale
OP 3 : Representative fraction
OP 4 : None of these

Question : 6 Calculate the number of division of the main scale that is equal to the 8 divisions of the extended vernier.

OP 1 : 7
OP 2 : 9
OP 3 : 15
OP 4 : 16

Question : 7 Ranging is defined as:

OP 1 : Measuring the distance from starting point
OP 2 : Establishing intermediate points on a chain line
OP 3 : The distance between end points
OP 4 : A point on a chain line

Question : 8 The principal of working of optical square is based upon:

OP 1 : Double reflection
OP 2 : Double refraction
OP 3 : Reflection
OP 4 : Refraction

Question : 9 Correction per chain length of 100 links along a slope of αα radians is-

OP 1 : 100α2α2
OP 2 : 100 αα
OP 3 : 100α3α3
OP 4 : α−1α−1

Question : 10 The distance between steps for measuring down hill obtain better accuracy_____

OP 1 : Decreases with decrease of slope
OP 2 : Increase with increase of slope
OP 3 : Decreases with increase of slope
OP 4 : Decreases with decrease of weight of the chain

Question : 11 Which one is the CORRECT statement?

OP 1 : Length of Engineering chain is 33ft.
OP 2 : Length of Engineering chain is 66 ft.
OP 3 : Length of Gunter's chain is 66ft.
OP 4 : Length of Gunter's chain is 66ft.

Question : 12 Which of the following instrument is used for setting out right angles?

OP 1 : Clinometers
OP 2 : Offset rod
OP 3 : Prism square
OP 4 : Plumb bob

Question : 13 Determine the normal pull (kg) for a take of 20m long standardized at a pull of 30 kg. The cross section area of the tape is 0.5 square centimeters, weight of the tape per meter is 20 gm. Take modulus of the elasticity for tape material as 21,00,000 kg per square centimeter.

OP 1 : 28
OP 2 : 36.8
OP 3 : 64
OP 4 : 78

Question : 14 If the magnetic bearing of the sun at a place at noon in southern hemisphere is 167°, the magnetic declination at that place is :

OP 1 : 13° E
OP 2 : 13° W
OP 3 : 77° N
OP 4 : 23° S

Question : 15 The force bearings of the lines AB and BC are 40° and 120° respectively. The include angle between AB and BC is :

OP 1 : 40°
OP 2 : 60°
OP 3 : 80°
OP 4 : 100°

Question : 16 The direction of a line relative to a given meridian is known as

OP 1 : Angle of line
OP 2 : Direction of line
OP 3 : Bearing of line
OP 4 : Relative of line

Question : 17 Which of the following i TRUE for the limit of accuracy in a compass surveying?

OP 1 : Should not more than 5 minutes
OP 2 : Should not be less than 5 minutes
OP 3 : Should not more than 10 minutes
OP 4 : Should not be less than 10 minutes

Question : 18 For of the following local attraction as follows:

Line	AB	BC	CD	DE
Foe bearing(degree)	125	172	264	316
Back bearing(degree)	304	351	83	136

Which of the following station is free from the local attraction ?

OP 1 : A and D
OP 2 : A and C
OP 3 : C and D
OP 4 : Only D

Question : 19 The'Scale plate' of a theodolite is:

OP 1 : The upper plate
OP 2 : The lower plate
OP 3 : Both the above
OP 4 : None of the above

Question : 20 Which of the following instrument is used for centering the theodolite in windy conditions?

OP 1 : Cross staff
OP 2 : Optical plummet
OP 3 : Optical square
OP 4 : Spirit level

Question : 21 In which of the following plane, the telescope of the theodolite twined in order to swing?

OP 1 : Horizontal axis
OP 2 : Horizontal plane
OP 3 : Included plane
OP 4 : Vertical plane

Question : 22 The ratio of focal length of the objective to stadia interval is called_____.

OP 1 : Additive factor
OP 2 : Multiplying
OP 3 : Staff internals
OP 4 : Subtractive factor

Question : 23 Calculate the distance between the instrument and the staff readings are 1.56m, 2.05m and 2.56m. The multiplying constant is 100 additive constant is 10.

OP 1 : 64
OP 2 : 110
OP 3 : 112
OP 4 : 215.67

Question : 24 In a closed traverse _____

OP 1 : Difference between fore-bearing ans backbearing should be 90o
OP 2 : Sum of including angles should be (2N-4) times right angles, where N represents the number of sides
OP 3 : Sum of including angles should be (2N-1) times tight angle, where N is the number of sides
OP 4 : None of these

Question : 25 Relative error of the closure in the ratio of

OP 1 : Closing error to sum departure
OP 2 : Closing error to sum of latitude
OP 3 : Closing error to perimeter of traverse
OP 4 : Latitude to departure

Question : 26 Mean sea level (MSL) adopted by the survey of India for reference, is located at

OP 1 : Kolkata
OP 2 : Mumbai
OP 3 : Karachi
OP 4 : Delhi

Question : 27 The surface of zero elevation around the earth, which is slightly irregular and curved is known as

OP 1 : Means sea level
OP 2 : Good surface
OP 3 : Level surface
OP 4 : Horizontal surface

Question : 28 The sensitiveness of a level tube decreases of _____.

OP 1 : Radius of curvature of its inner surface is increased
OP 2 : Diameter of the tube is increased
OP 3 : Length of the vapour bubble is increased
OP 4 : Both viscosity and surface tension are increased

Question : 29 In the levelling between two points A and B On the opposite side of a pond, the level is first setup near the point A and staff reading on A and B are 2.5 m and 2.0 m respectively. Then the level is moved and set near the point B, staff reading on a pint A and B are 1.2 m and 1.7 m respectively.Calculate the difference of heights between the two points A and B (in metre).

OP 1 : 0
OP 2 : 0.5
OP 3 : 1
OP 4 : 1.85

Question : 30 What is the correct sequence of the temporary adjustment of level?

OP 1 : Centering, levelling and setting
OP 2 : Levelling, setting and centering
OP 3 : Setting, centering and levelling
OP 4 : Setting, levelling and centering

Question : 31 If 'D' is the constant distance between the section, has correct prismoidal formula for volume is :

OP 1 :
$\frac{d}{3}(first\ area + last\ area + 4\sum even\ area + 4\sum odd\ area$
OP 2 :
$\frac{d}{6}(first\ area + last\ area + 2\sum even\ area + 4\sum odd\ area$
OP 3 :
$d(first\ area + last\ area + \sum even\ area + 2\sum odd\ area$
OP 4 :
$\frac{d}{3}(first\ area + last\ area + 2\sum even\ area + 4\sum odd\ area$

Question : 32 If B is the width of formation, d is the height of the embankment, side slope S : 1 for a highway with no transverse slope, the area of cross-section is:

OP 1 : $B \times d + Sd$
OP 2 : $Bd + Sd^2$
OP 3 : $B \times d - Sd^{1/2}$
OP 4 : $1/2(Bd + Sd^2)$

Question : 33 Which of the following method estimates the best volume or earthwork of an irregular embankment?

OP 1 : Average ordinate method
OP 2 : Mid-ordinate method
OP 3 : Simpson's method
OP 4 : Trapezoidal method

Question : 34 Calculate the volume (cubic meter) of earth work in an embankment of length 15 m. The top width of the embankment is 5m depth is 3m. The side slope is 1.5 : 1

OP 1 : 225
OP 2 : 326.25
OP 3 : 367
OP 4 : 427.5

Question : 35 Plotting if inaccessible point on a plane table is done by

OP 1 : Intersection
OP 2 : Traversing
OP 3 : Radiation
OP 4 : None of these

Question : 36 Which of the following is used for determining the location of station occupied by the plane table ?

OP 1 : Both intersection radiation
OP 2 : Intersection method
OP 3 : Radiation method
OP 4 : Two point problem

Question : 1 Answer : 1

Question : 2 Answer : 1

Question : 3 Answer : 3

Question : 4 Answer : 4

Question : 5 Answer : 2

Question : 6 Answer : 3

Question : 7 Answer : 2

Question : 8 Answer : 1

Question : 9 Answer : 2

Question : 10 Answer : 3

Question : 11 Answer : 2,3

Question : 12 Answer : 3

Question : 13 Answer : 2

Question : 14 Answer : 1

Question : 15 Answer : 4

Question : 16 Answer : 3

Question : 17 Answer : 1

Question : 18 Answer : 4

Question : 19 Answer : 2

Question : 20 Answer : 2

Question : 21 Answer : 2

Question : 22 Answer : 2

Question : 23 Answer : 2

Question : 24 Answer : 2

Question : 25 Answer : 3

Question : 26 Answer : 2

Question : 27 Answer : 1

Question : 28 Answer : 4

Question : 29 Answer : 1

Question : 30 Answer : 1

Question : 31 Answer : 1

Question : 32 Answer : 2

Question : 33 Answer : 3

Question : 34 Answer : 4

Question : 35 Answer : 1

Question : 36 Answer : 4