## CIVIL ENGINEERING



## SSC JE PRE 2021 Cusim LIVE ONLINE CLASSES <br> 

ChELPLINE - 8595517959, 7827455078

# Foundation Batch 

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## SURVEYING | SSC JE PYQ |BY MOOLCHAND SIR

Q : 1) The survey in which the curvature of the earth is taken into account is called:
A : Geodetic survey
B : Plane survey
C : Hydrographical survey
D : Topographical survey

Q : 2) Which of the following statements in respect of a map A having 1:1000 and another map $B$ having scale 1 : 5000 is true?
A : Map A is a large scale map compared to map B
B : Map B is a large scale map compared to map A
C : Map $B$ is a more detailed map compared to map A
D : None of the above

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Q : 3) A scale representing either three units or only one unit and its fractions upto second place of decimal point is

A : Diagonal scale
B : Comparative scale
C : Vernier scale
D : Shrink scale
$Q: 4)$ In case of a direct vernier scale A : Graduations increase in opposite direction in which graduations of the main scale increase
B : Smallest division is longer than smallest division of the main scale 1
C : Graduations increase in the same direction in which graduations of the main scale increase
D : None of these

Q : 5) Determine the number of divisions required on the vernier scale, if it is combined with the main scale of least count 0.5 mm . The least count of the combination required is 0.05 mm for the direct vernier.
A : 0.025
B : 0.1
C: 1
D: 10

Q : 6) Which one of the following survey is used to define the property line?
A : City survey
B : Cadastral survey
C : Land survey
D : Topographical survey

Q:7) The principle of working of optical square is based upon :
A : Double reflection
B : Double refraction
C : Reflection
D : Refraction

Q:8) Survey line provided to verify the accuracy of the framework is known as
A : Tie line
B : Base line
C : Subsidiary line
D : Check line

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Q : 9) Calculate the correction for temperature for a tape of length ' $L$ ' if the increase in temperature is ' $T$ ' above the standard temperature. The coefficient of the temperature for tape material is ' $a$ '. A: aT/L
B:-aT/L
C: +aTL
D:-aTL

Q : 10) Determine the normal pull (kg) for a take of 20 m 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 metre is 20gm. Take modulus of the elasticity for tape material as 21,00,000 kg per square centimetre.
A : 28
B : 36.8
C: 64
D : 78

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$\mathrm{Q}: 11$ ) If the magnetic bearing of the sun at a place at noon in southern hemisphere is $167^{\circ}$, the magnetic declination at the place is:
A : $\mathbf{1 3}^{\circ} \mathrm{E}$
B : $13^{\circ} \mathrm{W}$
C: $7^{\circ} \mathrm{N}$
D: $\mathbf{2 3}^{\circ} \mathrm{S}$

Q:12) Compute the angle between the line $A B$ and $A C$, if their respective bearing is $52^{\circ} 30^{\prime}$ and $328^{\circ} 45^{\prime}$
A : $\mathbf{2 7 6}^{\circ}{ }^{15}{ }^{\prime}$
B: $6^{\circ}{ }^{15}$
C: $111^{\circ} \mathbf{1 5}^{\prime}$
D : 83 ${ }^{\circ} \mathbf{4 5}^{\prime}$

Q : 13) Calculate the magnetic declination, if the magnetic bearing of a line is $N 81^{\circ} \mathrm{E}$ and true bearing of the line is $N 77^{\circ} \mathrm{E}$
A : +4 degree east ward
B : -8 degree east ward
C : -4 degree west ward
D : +4 degree south ward

Q:14) calculate the additive and multiplying constant, If the focal length of the objective glass is $\mathbf{2 5 0} \mathbf{~ m m}$, stadia intercept is $\mathbf{2 m m}$ and instance of the instrument axis from the center of the object is 190 mm .
A : 95, 440 mm
B : 125, 440 mm
C : 440, 95 mm
D : 440, 125 mm

Q : 15) A dumpy level is set up with its eyepiece vertically over a peg $A$. The height from the top peg $A$ to the center of the eyepiece is 1.540 m and the reading of peg $B$ is 0.705 m . The level is then set over $B$. The height of the eyepiece above peg $B$ is 1.490 m and a reading on $A$ nis 2.195 m . The difference in level between $A$ and $B$ is $\qquad$ A : 2.900 m
B: 3.030 m
C: 0.770 m
D: 0.785 m

Q : 16) Calculate the curvature correction (in m ) if distance between the instrument and staff is 500 m .
A: 0.0196
B : -0.0196
C : 0.0028
D : -0.0028

Q : 17) Calculate the corrected staff reading at point $A$, if the staff reading is taken from an instrument which is set at a distance of 1.5 km from the point A 3.46 m
A: 3.28
B : 3.3
C: 3.43
D: 3.48

Q : 18) Calculate the apex distance, if the deflection angle is 60 degree and the degree of curve is 8 degree.
A: 33.26
B : 127.13
C: 215
D : 262.8
$Q: 19)$ Calculate the length (m) tangent of a 5 degree curve, if the deflection angle is 60 degree.
A: 172.5
B : 198.6
C: 390
D:596

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Q:20) If the formation level of a highway a uniform gradient for a particular length and the ground is also having a longitudinal slope, the earthwork may be calculated by
A : Mid-section formula
B : Trapezoidal formula
C : Prismoidal formula
D : All options are correct

Q : 21) Calculate the volume of the embankment (in cubic metre) using trapezoidal method, if the cross sectional area of the three sections of an embankment at an interval of 30 m are $\mathbf{2 0}$ square metres, $\mathbf{4 0}$ square metres and 50 square metres.
A: 1100
B : 1150
C: 2250
D : 2350

## SURVEYING | SSC JE PYQ |BY MOOLCHAND SIR

Q : 22) Plumb bob lines at two different places in plane surveying are $A$ : Cut at the centre of the earth
B : Inclined
C : Parallel to each other
D : Perpendicular to each other

Q : 23) Which method of contouring is most suitable for hilly terrains?
A : Cross section method
B : Direct method
C : Square method
D : Tacheometric method

Q : 24) The constant vertical distance between two adjacent contours is called
A : Horizontal interval
B : Horizontal equivalent
C : Vertical equivalent
D : Contour interval

Q : 25) The direction of steepest slope on a contour is
A : Along the contour
B : At an angle of $45^{\circ}$ to the contour
C : At right angles to the contour
D : None of these

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## किसी भी प्रकार की सहायता <br> के लिए संपर्क करें। <br>  <br> 8595517959, 7827455078

