Q:) The observed bearings of a traverse are given below:


The station(s) most likely to be affected by local attractive is/are
A: Only c
B: Only A
$C: C$ and $D$
D : B and C

Q : ) In a topographical of a proposed reservoir, the area enclosed by contour lines is shown below.

| Contour (m) | Area enclosed (ha) |
| :---: | :---: |
| 105 | 100 |
| 110 | 150 |
| 115 | 350 |
| 120 | 500 |
| 125 | 900 |

The volume of impounded water using trapezoidal formula will be
A : 5000 ha-m
B : 7500 ha-m
C : 8200 ha-m
D : 10000 ha-m

Q : ) The magnetic bearing of a line AB is $552^{\circ} 30^{\prime} \mathrm{W}$. If the magnetic declination is $4^{\circ} 15^{\prime} \mathrm{W}$, then the true bearing of the line will be A: S48 ${ }^{\circ} \mathrm{E}$

B: S5645'W
C: S48ํ.15'W
D: S5645'E

Q: ) The total length of eight links in a 'Revenue chain' is
A : 16.5 feet
B : 33 feet
C : 26 feet
D : 13 feet

Q: ) Which of the following angular method(s)of laying curves do/does not use any distance measurement?
Rankine method
Two-theodolite method
Tachometric method
A: Only i
B : Only iii
C : ii and iii
D : i and iii

Q : ) A $2^{\circ}$ curve of chord length 20 m has a radius of

$$
\begin{aligned}
& A: 573 \mathrm{~m} \\
& B: 286.5 \mathrm{~m} \\
& C: 143 \mathrm{~m} \\
& D: 72.5 \mathrm{~m}
\end{aligned}
$$

Q: ) A transition curve is essentially used to
A : Generate more frictional forces for stability
$B$ : Allow vehicles to have increased speed while driving
C : Negate the effect of centrifugal forces
D : Avoid abrupt change in radius from a straight line to a finite radius curve

Q:) When you transit the telescope, you rotate the telescope about the
A : trunnion axis
B : Vertical axis
C: Optical axis of the telescope
D : line of collimations

Q : ) In the method of repetition for measuring horizontal angles, to rotate the instrumental without changing the readings,

A : Lower clamp screw is tightened and upper clamp is loosened
B : Lower clamp screw is loosened and upper clamp is tightened
C : Any one of the clamp screw is loosened
D : Bothe the clamp screw are loosened

Q:) Dip of the horizon is the angle
A : Made by the line of sight with the horizontal
$B$ : Between the line of sight and the level surface
C : Between the line of sight and the tangent to the level surface
D : Made by the line of sight with the plumb line

Q:) In 'mafic' type of igneous rocks, the percentage of silica is A: < 45\%

B : 45-55\%
C : 55-60\%
D: 60-70\%

Q: ) As per IRC, the design speed (ruling and minimum) on a National Highway in plain terrain are

A : $100 \& 80 \mathrm{kmph}$
B: $100 \& 65 \mathrm{kmph}$
C : 80 \& 65 kmph
D : 65 \& 50 kmph

Q : ) When the speed of the traffic flow become zero, then
A : Traffic density attains its maximum value whereas traffic volume become zero

B : Traffic density and traffic volume both attain respective value
C : Traffic density and traffic volume both become zero
D : Traffic density becomes zero whereas traffic volume attains its maximum value.

Q: ) Travel time and delay studies of road, the free speed was 80 kmph and the jam density was 70 vpkm. The maximum flow in vph that could be expected on this road is

A: 800
B : 1400
C: 2800
D : 5600

Q : ) At highway stretches where the required Overtaking Sight Distance cannot be provided, in such sections it is necessary to incorporate at least

A : Three time the Stopping Sight Distance
B : One-third of the required intermediate Sight Distance
C : Half of the required intermediate Sight Distance
D : Twice the stopping Sight Distance
$\mathrm{Q}:$ ) The instrumental used to measure Roughness index is
A : Profometer
B : Reflectometer
C : Inclinometer
D: Bump integrator

Q : ) The consistency and flow resistance of bitumen can be determined from which of the following?

A : Ductility test
B : Penetration test
C : Softening point test
D : Viscosity test

Q: ) As per IRC:67-2001, a traffic sign indicating the speed limit on a road should be of

A : Circular shape with red background and white border
B : Triangle shape with red background and white border
C : Circular shape with white background and red border
D : Triangle shape with white background and red border

Q: ) As per IRC guidelines for designing flexible pavement by CBR method the load parameter required is

A : Number of commercial vehicle per day
B : Cumulative standard axles in msa
C : Equivalent single axle load
D : Number of vehicle (all type) during design life.

Q: ) Which of the following bond for brickwork is used in half-brick thick leaves of cavity walls?

A : English bond
B : Garden wall bond
C: American bond
D : Stretcher bond


