

Q:) The diaphragm of a stadia theodolite is fitted with two additional A: Horizontal hairs **B**: Vertical hairs C: Horizontal and two vertical hairs D: None of these

Q:) If a tachometer is fitted with an analectic lens A: Additive constant is 100, multiplying constant is zero B: Multiplying constant is 100, additive constants is zero C: Both multiplying and additive constants are 100 D: Both multiplying and additive

Q:) The curve composed of two drcs of different radii having their centres on the opposite side of the curve, is known A : A simple curve **B**: A compound curve C: A reverse curve D: A vertical curve.

Q:) The angle of intersection of a curve is the angle between A: Back tangent and forward tangent **B**: Prolongation of back tangent and forward tangent C: Forward tangent and long chord D: Back tangent and long chord.

Q:) If the rate of gain of radial acceleration is 0.3 m per sec 3 and full centrifugal ratio is developed. On the curve the ratio of the length of the transition curve of same radius on road and railway, is A: 2.828 **B: 3.828** C: 1.828 D:0.828.

Q:) The properties of autogenous curve for auto-mobiles are given by A: True spiral B: Cubic parabola C: Bernoulli's Lemniscate D: Clothoid spiral.

Q:) An ideal vertical curve to join two gradients, is A: Circular **B**: Parabolic C: Elliptical D: None of these.

Q:) If + 0.8% grade meets - 0.7% grade and the rate of change of grade for 30 m distance is 0.05, the length of the vertical curve will be A:600 m B : 700 m C:800 m D:900 m.

Q:) For indirect ranging, number of ranging rods required, is A:1 **B**:2 C:3 **D**:4

Q:) The main plate of a transit is divided into 1080 equal divisions. 60 division of the Vernier coincide exactly with 59 divisions of the main plate. The transit can read angles accurate up to A:5" **B**:10" C:15" **D**:20"

Q:) Permanent adjustments of a level are A: 2 in number B: 3 in number C: 4 in number D: 6 in number.

Q:) Number of subdivisions per metre length of a levelling staff is A:100 **B**:200 C:500 D:1000

Q:) Pantograph is used for A: Measuring distances **B**: Measuring areas C: Enlarging or reducing plans D : Setting out right angles.

Q:) Profile levelling is usually done for determining A: Contours of an area B: Capacity of a reservoir C: Elevations along a straight line D: Boundaries of property.

Q:) The bearing of line AB is 152° 30' and angle ABC measured clockwise is 124° 28'. The bearing of BC is A: 27° 52' B:96°58' C:148°08' D: 186°58'.

Q:) Ranging is an operation of A: Reconnaissance **B**: Judging the distance C: Determination of slope D: Establishing intermediate points between terminals.

Q:) Measuring with a 30 m chain, 0.01 m too short, introduces A : Positive compensating error **B** : Negative compensating error C: Positive cumulative error D : Negative cumulative error.

Q:) A dumpy level was set up at mid-point between pegs A and B, 80 m apart and the staff readings were 1.32 and 1.56. When the level was set up at a point 10 m from A on BA produced, the staff readings obtained at A and B were 1.11 and 1.39. The correct staff reading from this set up at B should be A: 1.435 **B**: 1.345 C:1.425 **D** : None of these.

Q:) The desired sensitivity of a bubble tube with 2 mm divisions is 30". The radius of the bubble tube should be A: 13.75 m B: 3.44 m C: 1375 m **D** : None of these.

Q:) A dumpy level was set up at the mid-point between two pegs A and B, 50 m apart and the staff readings at A and B were 1.22 and 1.06. With the level set up a A, the readings at A and B were 1.55 and 1.37. The collimation error per 100 m length of sight is A: 0.02 m inclined upwards **B: 0.04 m inclined downwards** C: 0.04 m inclined upward **D** : None of these.

