ఎపిపిఎస్స్ అసిస్టెంట్ ఆల్కటెక్చరల్ డ్రాఫ్ట్రెమెన్ అండ్ సర్వేయర్డ్

టౌన్ ప్లానింగ్ బిల్డింగ్ ఓవర్ సీర్మ్ మోడల్ పేపర్

- 1. perpendicular offset form the junction of transition curve and curricular curve to the tangent is equal to
 - 1) shift 2) two times the shift
 - 3) three times the shift 4) four times the shift
- 2. If the radius of circular curve is five times the length of the transition curve, then the spiral angle is given by
 - 1) 1/5 radian 2) 1/10 radian
 - 3) 1/20 radian 4) 1/40 radian
- If L is the length of transition curve and R is the radius of circular curve, then the shift of the curve is directly proportional to

1) R and
$$\frac{1}{L^2}$$
 2) 1/R and L²

and L
 R² and 1/L

 If an upgrade of 1-5% is followed by a downgrade of 0.5% and rate of change of grade is 0.2% per 20m chain, then the length of vertical is

- 1) 100m 2) 200m
- 3) 300m 4) 400m
- 5. By plane table surveying
 - 1) field work alone is possible
 - 2) plotting alone is possible

3) both field work and plotting has are possible simultaneously

4) both field work in the field and plotting on office are possible

- The plots intended for residential purposes in a municipal area should not be less than
 - 1) 80 m² 2) 120m²
 - 3) 160m² 4) 200m²
- The plot size in residential layouts in corporation limits for row housing in m² is
 - 1) 50-100 2) 100-150
 - 3) 150-200 4) 200

- 8. In the double application of principle of reversion, the apparent error is
 - 1) equal to true error
 - 2) half the true error
 - 3) two times the true error
 - 4) four times the true error
- 9. The maximum value of centrifugal ratio on roads and railways respectively are taken as
 - 1) 1/4 and 1/6 2)1/6 and 1/8
 - 3) 1/4 and 1/8 4)1/8 and 1/4
- 10. Agonic line is the line joining points having1) Zero declination2) minimum declination3) maximum declination
 - 4) declination
- 11. The difference in elevation of points between a vertical and a tangent is
 - 1) directly proportional to its horizontal distance form the point of tangency
 - ineresely proportional to its horizontal distance from the point of tangency
 - 3) directly proportional to the square of its horizontal distance from the point of tangency
 - 4) inversely proportional to the square of its horizontal distance from the point of tangency
- 12. The type of pointing in which the mortar is first pressed into the raked joints and then finished off flush with the edges of the bricks or stones, is called
 - 1) flust pointing 2) struck pointing
 - 3) V-grooved pointing 4) tuck pointing
- 13. A block of stone or concrete provided under the end of tie beam to spread the load from the roof over a large area of bearing, is called
 1) gable
 2) hip
 - 3) verge 4) template
- 14. The horizontal members of wood or steel used to support the common rafter of a sloping roof, are called
 - 1) purlins 2) cleats
 - 3) hip rafters 4) valley rafters
- 15. The type of pointing in which the mortar is first pressed into the raked joint and then finished off flush with the face of the bricks or stones is called

	1) flush pointing 2) struck pointing		1) shift	2) slint
	3) V-grooved pointing 4) tuck pointing		3) parallax error	4) sight error
16.	The efficiency of a riveted joint is :		A working profile gives	i
	1) Tearing efficiency 2) Shearing efficiency		1) ground levels only	
	3) Crushing efficiency 4) Least of the above		2) formation levels only	у
17.	The efficiency of pile group is		3) difference in ground	levels & formation levels
	1) always less than one		4) all of the above	
	2) always more than one	26.	The error in the staff read	adings due to curvature of
	3) always equal to one		the earth when the len	gth of sight is 1 Km is
	4) less than, equal to or more than one		1) -0.0785 m	2) +0.0785 m
18.	Read the following two statements and select		3) -0.0667 m	4) +0.0667 m
	the correct answer	27.	The vertical distance b	etween the upper surface
	i) Shift bisects the transition curve		of the successive treads is known as	
	ii) Transition curve bisects the shift		'going of step'	
	1) only (i) is correct 2) only (ii) correct	00	1) true	2) faise
	3) both (i) and (ii) are correct	28.	The brick flooring is us	sed in
	4) neither (i) nor (ii) is correct		 a) workshops a) workshops 	2) youowns 4) none of these
19.	A curve tangential to four straight lines and con-	20	5) veranuaris	4) none of these
	sisting of arcs of different radii is known as		tiles of chips glazed (or of marble arranged in
	1) one centred compound curve		different pattern is known as	
	2) two centred compound curve		1) asphalt flooring	2) mosaic flooring
	3) three centred compound curve		3) terrazo flooring	4) granolithic flooring
	4) four control compound curve		In stairs, the flier is	r) granontno noonng
20	If the degree of a curve is 1 ^o , then radius of the curve is equal to		1) a vertical portion of a	a step providing a support
20.			to the tread	
	1) 5400 m (2) 1720m		2) a straight step havin	g a parallel width of tread
	2/11/2011		3) the under surface of	f a stair
			4) the angle which the	line of nosing of the stair
	3) m 4) m		makes with the horizo	ntal
		31.	The maximum velocity	of flow is limited to about
21.	The contour shown in figure indicates		3 m/sec, though in pra	actice it should preferably
	1) a depression		not exceed	
	2) a hill		1) 2 m/sec	2) 2.25 m/sec
	3) steep slope		3) 2.5m/sec	4) 3 m/sec
	4) plain ground	32.	The circular section of	a sewer is very common
22.	for the computation of areas, which rule is most		but it is best suitable v	when diamter is up to
	accurate?		1) 0.75 m	2) 1.25m
	1) Mid-ordinate rule 2) Average Ordinate rule		3) 1.5m	4) 3m
	3) Trapezoidal rule 4) Simpson's rule		While designing a sev	werage system, the span
23.	A pantograph is used for		of design period is ge	nerally taken as
	1) Measuring		1) one year	2) 5 years
	2) measuring distances on maps	0.4	3) 10 years	4) 20 years
	3) reproducing, enlarging or reducing the	34.	writch of the followin	ig represents a correct
	maps		i) moveship heir metho	a d
0 4	4) Measuring vertical angles		the intercent of lovel	ju ing staff is kont constant
24.	The apparent movement of the image of the		and stadia bair interval	lis variable
	stall relative to the cross hairs is known as		ii) fixed hair method	
			in inco nai incliou	

<u>β</u>720 π The intercept on levelling staff is variable and stadia hair interval is fixed iii) tangential hair method The stadia hairs are not used

- 1) only (iii) is correct
- 2) only (i) and (ii) are correct
- 3) all (i), (ii) and (iii) are correct
- 4) none is correct
- 35. The longest time without unreasonable delay, the would be required for a drop of water to flow from the upper limit of the drainage area to the point where concentration or the maximum effect of flood considered, is known as
 - 1) inlet time 2) time of flow
 - 3) time of concentration
 - 4) time-intensity
- 36. The time required for first drops of rain water to flow from the distant points of water shed to the head of the sewer or drain is known as
 - 1) inlet time
 - 2) time of flow
 - 3) time of concentration
 - 4) time intensity
- 37. In question no.89 the R.L of last point
 - 1) is greater than R.L of first point
 - 2) is same As R.L of first point
 - 3) is smaller than R.L of first point
 - 4) cannot be determined from the given data

38.

Station	B.S	I.S	F.S	H.I	R.L	Remarks
A	2.3			102.3	100.00	B.M
В		1.3			101.00	
С			2.3		Х	

The above table shows a part of a level field book. The value of X should be 1) 98.70 2) 100.00 3) 102.30 4) 103.30 39. The multiplying constant of a theodolite is 1) f/i 2) (f+d)

3) (f/i+d)	4) (f/d+1)
5) (i/i+u)	4) (I/U+1)

- where f is focal length of object lens
- l is stadia hair interval

d is the distance between the optical centre of the object lens and the axis of the theodolite

- 40. The distance between centre to centre of two adjacent rivet holes should not be less than
 - 1) 1.5 times the diameter of rivet hole
 2) 1.5 times the diameter of rivet
 - 3) 1.5 times the diameter of rivet head
 - 4) 2.5 times the diameter of rivet

- 41. If an up grade of +1% on first class railway is followed by a down grade of -2%, then the length of vertical curve will be
 - 1) 20 chains 2) 40 chains
 - 3) 50 chains 4) 80 chains
- 42. An outline or ------ should never by used as a dimension line
 - 1) inner line 2) centre line
 - 3) outer line 4) Perpendicular
- 43. Mutual crossing of dimension lines and dimensioning between ------ should be avoided
 - 1) dotted line 2) straight line
 - 3) curved line 4) dashed line
- 44. The recommended rate of change of grade for second class railways per 20-m distance at sages is
 - 1) 0.12% 2) 0.1%
 - 3) 0.8% 4) 0.06%
- 45. The distance between centre to centre of any two adjacent rivets shall not exceed by _____ when the rivets do not lie in the direction of stresses
 - 1) 12xthickness of the thinnest plate
 - 2) 16x thickness of the thinnest plate
 - 3) 32xthickness of the thinnest plate
 - 4) 32xdiameter of the rivet used
- 46. A surveyor's chain is made of
 - 1) cast iron2) stainless steel3) aluminium4) galvanized mild steel
 - 5) aluminum 4) galvanized mild steel
- If a chain is found to be short, it can be adjusted by
 - 1) straightening the bent links
 - 2) removing one or more circular rings
 - 3) closing the joints that have opened out
 - 4) any of the above
- 48. A telescope is said to be inverted if its
 - 1) vertical circle is to its right and the bubble of the telescope is down
 - 2) vertical circle is to its right and the bubble of the telescope is up
 - 3) vertical circle is to its left and the bubble of the telescope is down

4) vertical circle is to its left and the bubble of the telescope is up

- 49. The cross hairs in the surveying telescope are placed
 - 1) midway between eye piece and objective lens
 - 2) much closer to the eye piece than to the ob jective lens
 - 3) much closer to the objective lens than to the eye piece
 - 4) anywhere between eye piece and objective lens

50.	The foundation in a building is provided to 1) distribute the load over a large area		1
	2) increase overall stability of the structure	50	lr.
	3) transmit load to the bearing surface (sub soil)	59.	n h
	at a uniform rate		1
	4) all of the above		1
51.	The failure of foundation of a building is due to	~~~	э т
• • •	1) withdraw of subsoil moisture	60.	1
	2) unequal settlement of soil		16
	3) lateral escape of the supporting material		ו ה
	4) all of these		u o
52.	The ability of sub-soil to support the load of the		2
	structure without yielding is known as		1
	1) bearing value of soil	61	4 T
	2) bearing power of soil	01.	ו ח
	3) bearing capacity of soil		1
	4) any one of these		2
53.	Ranging rods cannot be used at a distance of	62	<u>د</u>
	more than	02.	~
	1) 1 km 2) 500 m		1
	3) 400 m 4) 200 m		י 2
54.	I wo points A and B are 1530 m apart across a	63	N/
	wide river. The following reciprocal levels are	00.	1
			3
	LEVEL AT READINGS ON	64	т
	A 2.105 3.810 B 0.010 2.255	04.	' a
	B 0.910 2.335		1
	would be		3
	1) 1.255m 2)1.455m	65.	A
	3) 1.545m 4) 1.645m		S
55.	The Simpson Rule for area when D is the strip		
	and h_1, h_2 etc, are the ordinates.		to
	1) $A = d[h_1 + h_2 + h_3 + h_n]$		1
	2) A = $d/2[(h_1+h_2)+2(h_2+h_3)+2(h_3+h_3)$		3
)+4(h+h_++h)]	66.	Ir
	3) $A = d/3[(h + h) + 2(h + h ++h)]$		S
	$(1)^{(1)} + 4(h + h + \dots + h)^{(1)} = (1)^{(1)} + (1)$		ta
	$\frac{2}{2} - \frac{1}{2} - \frac{1}$		L
	4) $A = \alpha \left[\alpha \left[(1_1 + 1_n) + 2(1_2 + 1_4 + \dots) + 4(1_3 + 1_5 + \dots) \right] \right]$		
56.	In a closed traverse sum of exterior angle is		
	1) (2n-4) Xrt. angles 3) 4n rt.angles		
	4) 2n rt angles 4) none		lf
57.	In separate sewers the minimum velocity of		
	flow should not be less than		3
	1) U.6 m/sec 2) U.75 m/sec	c –	4
50	3) I III/SEC 4) 6 M/SEC	67.	Т
58.	ventilation column are provided at the upper end		0
	or every branch sewer and they are generally		T

spaced at a distance of

	1) 500 m	2) 300m
	3) 100m	4) 50m
).	In the quadrantal beari	ng system, a whole circle
	bearing of 293º 30' car	be expressed as
	1) W 23º 30'N	2) N 66º 30'N
	3) W 113º 30'N	4) N 23º 30'W
).	The prismatic compass	and surveyor's compass
	respectively give	
	1) Whole circle bearing	(WCB) of a line and qua-
	drantal bearings (QB)	of line
	2)both QB of a line and	WCB of a line
	3) both QB of a line	
	4) both WCB of a line	
۱.	The direction of the	magnetic meridian in a
	plane table survey is c	letermined by means of
	1) compass box	2) alidade
	3) trough compass	4) magmatic needle
2.	A flat rectangular piec	e of metal used to sight
	object in plane table su	urvey is called
	1) Level edge	2) Cross edge
	3) Alidade	4) fiducial edge
3.	Main title of inked draw	ring is generally written in
	1) gothic letters	2) simple letters
	3) straight letters	cornor letters
1.	The two types of single	-stroke letters are vertical
	and	
	1) straight	2) horizontal
	3) inclined	4) perpendicular
).	A level was set up at a p	Doint A and distance to the
	stall station b was 100	m. The net combined cor-
	to the staff reading is	and refraction as applied
	1) 0.00673 m	2) 0 000673 m
	3) -0 000673 m	4) -0.00673 m
S.	In levelling between two	points A and B on oppo-
	site banks of a river. th	e following readings were
	taken	5 5
	Lavel position	Staff readings
	·	A B
	А	1.500 1.000
	В	1.350 0.850
	If R.L of A is 100.0m, th	e R.L of B
	1) is less than 100.0m	2) is more than 100.0m
	3) is 100.0m	
	4) cannot be detremine	ed form given date
7.	The errors measured d	ue to the incorrect holding
	of chain is ;	

1) Cumulative error2) Compensating error3) Curvature error4) Isolated error

- 68. A line joining same fixed points on the main survey lines is known as :
 - 1) Base line 2) Check line
 - 4) Tie line 3) Contour line
- 69. The process of taking levels on each side of a main line at right angles to the centre line in order to determine the vertical cross-section of the ground is known as
 - 1) Differential levelling 2) Reciprocal levelling
 - 4) Cross-sectioning 3) Profile levelling
- 70. A curve of varying radius introduced between two branches of a compound curve is known as 1) Mean curve 2) Common curve
 - 3) Transition curve 4) Right hand curve
- 71. Lettering should be so done as can be read from the font with the main title
 - 1) Vertical 2) horizontal
 - 3) Straight 4) Perpendicular
- 72. A steel pile which function more efficiently in soft clay or loose sand, is
 - 1) H-pile 2) pipe pile
 - 3) screw pile 4) disc pile
- 73. A screw pile consists of cast iron or steel shaft of external diameter varying from
 - 1) 0 to 150 mm 2) 150 to 300 mm
 - 4) 450 to 600 mm
- $\frac{P}{W} \left(\frac{1+\sin\phi}{1-\sin\phi}\right)^2$ 3) 300 to 450 mm 4) 74. Sheet piles are made of
 - 2) steel 1) wood
 - 3) concrete 4) all of these
 - 75. The coefficient of friction between the concrete and soil is
 - 2) 0.25 to 0.30 1) 0.20 to 0.25
 - 3) 0.30 to 0.35 4) 0.35 to 0.50
 - 76. The Indian tangent clinometer is very useful in 1) reconnaissance survey
 - 2) compass survey

3) plane table survey when contouring is done simultaneously

4) plane table survey when three point problem has to be solved

- 77. While locating a number of points on a given gradient during preliminary survey of a hill road, the instrument most, suitable is
 - 1) hand level
 - 2) abney's hand level
 - 3) tangent clinometer
 - 4) ceylon ghat tracer
- As compared to chain riveting, diamond riveting 78. is preferred because

- 1) width of the plate required is less
- 2) saving in the material
- 3) efficiency is more
- 4) all the above are correct
- 79. In a structural connection, if the member is subjected to compression, then maximum pitch of the joint should be least of 200 mm or
 - 1) 12t 2) 16t 3) 32t 4) 16d
- 80. The arrangement of members in a truss is made in such a way so that they should form 1) rect-2) quadrilaterals angles 3) polygons 4) triangles
- 81. In a truss, as far as possible, the length of one independent member should not be more than 1) 1.5m 2) 2m
 - 3) 3m 4) 5m
- 82. A watertight surface constructed in connection with excavations for foundations of bridges, piers etc., is known as
 - 1) caisson 2) cofferdam
 - 4) raft foundation 3) well foundation
- 83. According to Rankine's formula, the minimum depth of foundation should be

1) 2)
$$\frac{p}{w} \left(\frac{1-\sin\phi}{1+\sin\phi} \right)$$

3)
$$\frac{p}{w} \left(\frac{1+\cos\phi}{1-\cos\phi}\right)^2$$
 4) $\frac{p}{w} \left(\frac{1-\cos\phi}{1+\cos\phi}\right)^2$

where

P= safe permissible pressure on base in N/M²,

w= Weight of soil in N/m³, and

 ϕ = Angle of repose of the soil

- 84. The minimum depth of foundation for the load bearing wall of a building is restricted to
 - 1) 600 mm 2) 700 mm
 - 3) 800 mm 4) 900 mm
- 85. The permissible error in chaining for measurement with chain on rough of hilly ground is
 - 1) 1 in 100 2) 1 in 250
 - 3) 1 in 500 4) 1 in 1000
- 86. The correction for sag is
 - 1) always additive
 - 2) always subtractive
 - 3) always zero
 - 4)sometimes additive and sometimes substracitve

- 87. Cross staff is an instrument used for
 - 1) measuring approximate horizontal angles
 - 2) setting out right angles
 - 3) measuring bearings of the lines
 - 4) none of the above
- The foundation supporting all the columns of a structure is called :
 - 1) Raft foundation
 - 2) Combined footing
 - 3) Strip footing
 - 4) Isolated footing
- 89. The method of finding out the difference in elevation between two points eliminating the effect of curvature and refraction is known as :
 1) Fly levelling 2) Geodetic levelling
 - 3) Precise levelling 4) Contour levelling
- 90. Superelevation of a horizontal curve is needed to counteract
 - 1) Curve resistance 2) Centrifugal force
 - 3) Centripetal force 4) Frictional force
- 91. The weight of the foundation may be assumed to be :
 - 1) 25% of the column loads
 - 2) 10% of the column loads
 - 3) 20% of the column loads
 - 4) 15% of the column loads
- 92. Figure shows the entries in a filed book for a chain line AB

What is the angle between chain line and railway line?

1) 26º 34	2) 30°
3) 45°	4) 60°

- 93. what is the distance between trees T₁ and T₂ shown in Figure?
 - 1) 4m 2) 5m 3) 7m 4) 12n



- 94. Theory of probability is applied to
 - 1) accidental errors only
 - 2) cumulative errors only
 - 3) both accidents and cumulative errors
 - 4) none of the above
- 95. If altitude bubble is provided both on index frames as well as on telescope of a theodolite, then the

(ii) altitude bubble on index frame if it is to be used as a level (iii) altitude bubble on telescope (iv) altitude bubble on telescope if it is to be used as a level The correct answer is 2) both (i) and (iv) 1) only (i) 4) both (ii) and (iii) 3) only (iii) 96. When two or more parts are connected together, a line of rivet shall be provided whose distance from the nearest edge should not be more than 1) 37 mm 2) 37 mm + thickness of thinnest outside plate 3) 50 mm 4) 37 mm+4x thickness of thinnest outside plate In compression members having both compo-97. nents back to back, the maximum distance between two adjacent tacking rivets shall not be more than 2) 300 mm 1) 600 mm 4) 100 cm 3) 200 mm 98. If the R.L. of a B.M. is 100.00m, the back sight is 1.215m and the foresight is 1 870m, The R.L. of the forward station is 1) 99.345m 2) 100.345m

instrument is levelled with reference to

(i) altitude bubble in index frame

- 3) 100.655m4) 101.870mA survey is conducted with a view to prepare the
- 99. A survey is conducted with a view to prepare the map of an area to a scale of 1:1000. If a scale with least count of 0.1mm is used for plotting, what would be the accuracy in length measurement in the field?
 - 1) 0.325 m 2) 0.01 m
 - 3) 0.1 m 4) 1m
- 100. The safe bearing capacity of the soil is equal to1) Nominal strength X factor of safety
 - 2)

4)

ultimate tensile strength3)

factor of safety

ultimate compressive strength

- factor of safety
- 101. The bearing capacity of soils can be improved by
 - 1) increasing the depth of footing
 - 2) draining the sub-soil water
 - 3) ramming the granular material like crushed stone in the soil
 - 4) all of the above

ultima

fa

102. The diameter of the drilled piles should not exceed

1) 200 mm	2) 400 mm
3) 600 mm	4) 800 mm

103. The pre-stressed concrete piles as compared to pre-cast and reinforced concrete piles

- 1) are lesser in weight
- 2) have high load carrying capacity
- 3) are extremely durable
- 4) all of these
- 104. H-piles
 - 1) require large storage space
 - 2) are difficult to handle
 - 3) cannot withstand large impact stress developed during hand driving

4) none of the above

105. A raking shore is a system of

1) giving temporary lateral support to an unsafe wall

2) providing temporary support to the party walls of two buildings where the intermediate building is to be pulled down and rebuilt

3) providing vertical support to walls and roofs, floors etc. when the lower part of a wall has to be removed for the purpose of providing an opening in the wall

- 4) all of the above
- 106. For a building on the side of a busy street where the ordinary scaffolding will obstruct the traffic on road, the type of scaffolding provided is
 - 1) brick layer's scaffold
 - 2) mason's scaffold
 - 3) steel scaffold 4) needle scaffold
- 107. A horizontal layer of bricks laid in mortar is known as

1) course	2) stretcher
-----------	--------------------------------

- 3) header 4) closer
- 108. A plane, which is perpendicular to the plumb line through a point and is tangential to the level surface at that point is called a
 - 1) tangential plane 2) vertical plane

3) level plane 4) horizontal plane

- 109. The rays drawn to the points of known location from the unplotted stations occupied by the plane table are called
 - 1)intersectors 2) resectors
 - 3) medians 4) medullary rays
- 110. In case the plane table is correctly oriented the resectors will
 - 1) form a triangle of error
 - 2) form a great triangle
 - 3) form a greate circle
 - 4) meet at a point

- 111. An open-newel stair consists of two or more straight flights arranged in such a manner that a clear space occurs between the backward and forward flights.
 - 1) agree 2) disagree
- 112. In wooden stairs, the thickness of tread is adopted as
 - 1) 28 mm 2) 38 mm
 - 4) 58 mm 3) 48 mm
- 113. The inner surface of an arch is called
 - 2) intrados 1) extrados
 - 3) crown 4) voussior
- 114. The vertex is the point at which the ----- cuts the axis
 - 1. conic
 - 2. lines 3. angles 4. ellipse
- 115. The sum of the distances of any point on the ---from its two foci is alwasy the same and equal to the major axis
 - 1. ellipse 2. parabola
 - 3. hyperbola 4. triangle
- 116. Finding the location of the station occupied by the table, on the sheet by means of sighting to three well defined points whose locations have been previously plotted on the sheet, is known as
 - 1) resection 2) traversing
 - 3) three point problem
 - 4) two point problem
- 117. A straight line normal to the plumb line at a point, and tangential to the level line at that point is called a
 - 1) level line 2) horizontal line
 - 3) vertical line 4) plumb line
- 118. The first sight or staff reading, taken from any levelling station to the levelling staff held at a point of known elevation, is called
 - 1) fore sight
 - 2) back sight 3) intermediate sight 4) fore bearing
- 119. In stairs, the vertical portion of a step providing a support to the tread, is known as
 - 1) riser 2) flier
 - 3) soffit 4) pitch or slope
- 120. The size of a step commonly adopted for residential buildings is
 - 1) 250 mm x 160 mm
 - 2) 270 mm x 150 mm
 - 3) 300 mm x 130 mm
 - 4) 350 mm x 100 mm
- 121. When a curve consists of two simple circular arcs of same or different radii, curving in opposite directions with a common tangent at their junction (centres of the two arcs being on opposite sides of the common tangent), such a curve is called as

1) simple circular curve 133. The extreme support of a hand railing provided at 2) compound curve the tope and bottom of a flight is known as 3) reverse curve 1) baluster 2) newel post 4) vertical curve 3) ballustrade 4) barrister 122. A curve having varying radiuses and introduced 134. The head room in a staircase should not be less in between a straight and a circular curve is known than as 2) 3m 1) 3.5m 2) transition curve 1) compound curve 4) 2m 3) 2.10m 3) vertical curve 4) super elevation 135. Pitched roofs are particularly suitable in hilly re-123. Generally the diameter of rivets used in strucgions because tural members, is not less than 1) they are lighter in weight 1) 6 mm 2) 12 mm 2) it is very easy to repair pitched roof as com-3) 16 mm 4) 20 mm pared to flat roof 124. In residential building, the average value of stair 3) of heavy rain fall and snow fall width is 4) all the above are correct 1) 600 mm 2) 700 mm 136. Generally for a column is a workshop using Gan-3) 800 mm 4) 900 mm try cranes, the foundation to be used should be 125. In first-angle projection method, The top view is 1) Pile foundation always below the ----- view 2) Grillage foundation 1) top 2) back 3) Raft foundation 3) front 4) above 4) Well foundation 126. The principle of working of an optical square is 137. For an ordinary double storey building, the type of based upon foundation to be used should be 1) refraction 2) reflection 1) Spread footing foundation 4) double reflection 3) double refraction 2) Stepped foundation 127. The angle between two plane mirrors of an opti-3) Raft foundation cal square should be 4) Any other type of foundation 1) 30° 2) 45° 138. The representative fraction 1/1,00,000 signifies 3) 60° 4) 90° a scale of 128. Dimensions of cylindrical parts should as far as 1) 1cm=100 mtrs 2) 1cm=10 k.mtr possible be shown in the views in which they are 3) 1cm=1 k.mtr 4) 1cm=100,000cm seen as 139. The representative fraction of the scale 1cm=100 1) circles 2) rectangles k.mtrs will be squares 4) triangles 1) 1/100,00 2) 1/100 129. Dimensions of a cylinder should never be given 3) 1/1,00,000 4) 1/1,00,00,000 as a 140. The errors which go on increasing in magnitude 1) radius 2) hergs 3) diameter 4) none (either positive or negative) with the increase in measured distance will be called as 130. The longest line passing through the centre of 1) cumulative errors the area known as 2) chain line 2) compensating errors 1) base line 3) procedural errors 4) centre line 3) survey line 131. The curve generated by a point on the circumfer-4) mistakes ence of a circle rolling along a straight line is 141. The most suitable type of pitched roof for a span called a of 2.5 metre is 1. epicycloid 2. hypocycloid 1) lean to roof 2) couple roof 3. trochoid 4. cycloid 3) collar roof 4) king post truss roof 132. The number of steps in an ordinary flight should 142. The pitched roof which slopes in all the four dinot be more than rections is named as 1) 12 2) 10 1) shed roof 3) 15 4) 20

2) gable roof 4) mansard roof

3) hip roof

143	43. The methods used for locating the plane table			146. A horizontal member fixed in a door or window		
	stations are			frame for the separate	ion of fan light is known as	
	i) radiation			1) transom	2) threshold	
	ii) traversing			3) mullion	4) sill	
	iii) intersection		147. In airconditioned buildings a door is required			
	iv) resection			which can serve both the purposes, i.e., opening		
	The correct answer is			and closing and for this purpose the most suit-		
	1) (i) and (ii)	2) (iii) and (iv)		able type of door is		
	3) (ii) and (iv)	4) (i) and (iii)		1) swinging door	2) sliding door	
144	. After fixing the plane	table to the tripod, the man		3) rolling shutter	4) revolving door	
	operations which are	needed at each plane table	148	. The type of truss c	ommonly used for spans	
	station are			varying from 5 to 9 m	netre is	
	i) levelling			1) queen post truss	2) king post truss	
	ii) orientation			3) mansard truss	4) composite truss	
	iii) centring		149	. In a queen post trus	ss, vertical posts	
	The correct sequence	e of these operations is		are used.		
	1) (i), (ii), (iii)	2) (i), (iii), (ii)		1) two	2) three	
	1) (i), (ii), (iii) 3) (iii), (i), (ii)	2) (i), (iii), (ii) 4) (ii), (iii), (i)		1) two 3) four	2) three 4) six	
145	 (i), (ii), (iii) (iii), (i), (ii) As compared to the flow 	2) (i), (iii), (ii) 4) (ii), (iii), (i) por area of a room, the glass	150	1) two 3) four . Lettering should be in	2) three4) sixn plain and simple style so	
145	 (i), (ii), (iii) (iii), (i), (ii) As compared to the floarea in a window show 	2) (i), (iii), (ii) 4) (ii), (iii), (i) por area of a room, the glass build not be less than	150	 two four Lettering should be in that it could be done 	2) three4) sixn plain and simple style sofreehand and	
145	 (i), (ii), (iii) (iii), (i), (ii) As compared to the floarea in a window shot 25% 	 2) (i), (iii), (ii) 4) (ii), (iii), (i) bor area of a room, the glass buld not be less than 2) 20% 	150	 two four Lettering should be in that it could be done stedy 	 2) three 4) six n plain and simple style so freehand and 2) speedily 	

ANSWERS 2.4 4.2 5.3 6.4 1.4 3.2 7.1 8.4 9.3 10.1 11.3 12.1 13.4 14.1 15.4 16.2 17.1 18.3 19.3 20.2 21.1 22.4 23.3 24.3 25.4 26.1 27.2 28.2 29.2 30.2 38.2 31.2 32.3 34.3 35.3 36.1 37.3 39.1 33.4 40.4 41.3 42.2 43.4 44.4 45.3 46.2 47.1 48.1 49.2 50.4 51.4 52.4 54.4 55.3 56.4 59.2 53.4 57.1 58.2 60.1 61.3 62.3 65.3 66.3 68.1 69.4 63.1 64.3 67.1 70.3 71.2 80.4 72.3 73.2 74.4 75.3 76.3 77.4 78.4 79.1 81.3 82.1 83.2 84.4 85.2 86.2 87.2 88.1 89.3 90.2 91.1 92.3 93.2 94.1 95.2 96.4 97.1 98.1 99.3 100.2 110.4 101.4 102.3 103.4 104.4 105.4 106.4 107.1 108.3 109.2 111.1 112.2 113.2 114.1 115.1 117.2 118.2 119.1 116.3 120.1 121.2 122.2 123.2 124.4 125.3 126.4 127.2 128.2 129.1 130.1 131.4 132.1 133.2 134.3 135.4 136.2 137.1 138.3 139.4 140.1 141.1 142.3 143.3 144.2 145.3 146.1 147.4 148.2 149.1 150.2