

Rajasthan Public Service Commission - 2016
Paper : VPITI-Civil

Ques # :1

In linear measurement ,the correction for sag is :-

- 1) Always additive
 - 2) Always subtractive
 - 3) Always zero
 - 4) Additive for "steel tape" and subtractive "metallic tape"
-

Ques # :2

If the quadrant bearing of a line is S 35° W then the whole circle bearing of the line is :-

- 1) 325°
 - 2) 145°
 - 3) 215°
 - 4) 125°
-

Ques # :3

In a simple curve if the angle of deflection is Δ degree then angle subtended by the long chord at the centre of the curve is :-

- 1) $180^\circ - \Delta$
 - 2) Δ
 - 3) $\Delta/2$
 - 4) 2Δ
-

Ques # :4

In plastic analysis of steel structures, at the location of plastic hinge:-

- 1) Curvature is zero
 - 2) Curvature is infinite
 - 3) Moment is infinite
 - 4) Moment is zero
-

Ques # :5

The Indian Standard code used for Wind load analysis is:-

- 1) Is 875 part -1
 - 2) Is 875 part-2
 - 3) Is 875 part-3
 - 4) IS875 part -4
-

Ques # :6

Effective length of a compression member of length L and Having both ends fixed, is :-

- 1) 0.80 L
 - 2) L
 - 3) 0.65 L
 - 4) 2L
-

Ques # :7

SI unit of kinematic viscosity is :-

- 1) N.s/m^2
 - 2) m^2/s
 - 3) N/m
 - 4) N.s/m
-

Ques # :8

Surface tension of water :-

- 1) Increases with increase in temperature
 - 2) Decreases with increase in temperature
 - 3) Independent of temperature
 - 4) None of the above is correct
-

Ques # :9

If f = friction coefficient for a pipe; L and D are length and diameter for the pipe respectively and V is velocity of flow through the pipe then according to Darcy-Weisbach equation the head loss due to friction resistance (h_f) is given by :-

- 1) fLV^2/gD

- 2) $2fLV^2/gD$
- 3) $fLV^2/2gD$
- 4) $3fLV^2/4gD$

Ques # :10

If V =mean velocity ; R =Hydraulic radius; S = bottom slop of channel and n =Manning's coefficient then Manning's formula for channel flow is given by :-

- 1) $V=(R^{1/3} S^{1/2})/n$
- 2) $V=(R^{1/2} S^{2/3})/n$
- 3) $V=(R^{2/3} S^{1/2})/n$
- 4) $V=(R^{1/2} S^{1/3})/n$

Ques # :11

A rectangular channel section will be most efficient when:-

- 1) Hydraulic radius is equal to half the depth of flow
- 2) Hydraulic radius is equal to the depth of flow
- 3) Depth of flow is equal to the bottom width
- 4) Depth of flow is equal to half the hydraulic radius

Ques # :12

The position of base course in a flexible pavement is :-

- 1) Below the sub-base
- 2) Over the sub-base
- 3) Over the sub-grade but below sub-base
- 4) Over the wearing course when renewal of surface is needed

Ques # :13

If a National Highway in plain terrain has a ruling design speed of 100 km per hour with super elevation (e) = 0.075 and friction coefficient =0.145 then the ruling minimum radius of such horizontal curve is close to :-

- 1) 430 m

- 2) 360 m
 - 3) 250 m
 - 4) 170 m
-

Ques # :14

For a vehicle with a speed of V m/s on a road surface with the coefficient of friction f and acceleration due to gravity g , the braking distance is given by :-

- 1) V^2/gf
 - 2) $V^2/2gf$
 - 3) $2V^2/gf$
 - 4) $V^2/4gf$
-

Ques # :15

As per IRC recommendations the ruling gradient for plain terrain is :-

- 1) 1 in 15
 - 2) 1 in 20
 - 3) 1 in 40
 - 4) 1 in 30
-

Ques # :16

'CPM' stands for :-

- 1) Critical Project Management
 - 2) Critical Project Monitoring
 - 3) Critical Path Method
 - 4) Creative Project Management
-

Ques # :17

In a construction project, "Parallel Activities" are those activities which can be performed:-

- 1) One after the other and are dependent on each other
- 2) One after the other and are independent of each other
- 3) Simultaneously and are dependent on each other
- 4) Simultaneously and are independent of each other

Ques # :18

On highways the sign of "Dead Slow" is a :-

- 1) Regulatory sign
- 2) Warning sign
- 3) Information sign
- 4) None of these

Ques # :19

Alligator or map cracking is the common type of failure in :-

- 1) Bituminous surfacing
- 2) Water Bound Macadam(WBM)
- 3) Concrete pavements
- 4) Gravel Roads

Ques # :20

If the soil sample has water content =20%; specific gravity=2.70; and void ratio=0.75 then degree of saturation of the given sample is :-

- 1) 68%
- 2) 13.8%
- 3) 54%
- 4) None of these

Ques # :21

If the ratio (e) of a given soil sample is 0.77 then its porosity (n) is :-

- 1) 0.435%
- 2) 43.50%
- 3) 23.3%
- 4) Data given are insufficient to calculate porosity

Ques # :22

If V =mean velocity ; R =Hydraulic radius; S = bottom slop of channel and n =Manning's coefficient then Manning's formula for channel flow is given by :-

- 1)

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

2)

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

3)

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

4)

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

Ques # :23

The particle size distribution curve with steep slope indicates that the type of soil is:-

- 1) Well graded soil
- 2) Gap graded soil
- 3) Uniform size soil
- 4) None of the above

Ques # :24

If the plasticity index of a soil mass is zero, the type of soil is :-

- 1) Sand
- 2) Clay
- 3) Silt
- 4) Clayey silt

Ques # :25

Lime stabilization is very effective in treating

- 1) Sandy soils
- 2) Silty soils
- 3) Non-plastic soils
- 4) Plastic Clayey soils

Ques # :26

the lime produced by slaking burnt lime stone with just sufficient quantity of water required to complete the chemical reaction and which is available in the form of dry powder is :-

- 1) Fat lime
- 2) Hydrated lime
- 3) Lime puty
- 4) Hydraulic lime

Ques # :27

In Portland cement the compound first to set after adding water is :-

- 1) Tetra-calcium alumino-ferrite
- 2) Di-calcium silicate
- 3) Tri-calcium silicate
- 4) Tri-calcium aluminate

Ques # :28

For testing of compressive strength of cement, the size of cube mould is:-

- 1) 10 cm
- 2) 7.06 cm
- 3) 50 cm
- 4) 15 cm

Ques # :29

The vertical distance between the springing line and the highest point of the inner curve of an arch is known as :-

- 1) Intrados
- 2) Rise
- 3) Span
- 4) Thickness

Ques # :30

Minimum thickness of wall where single Flemish bond can be used is :-

- 1) Half brick thick
- 2) One brick thick
- 3) One and Half brick thick
- 4) Two brick thick

Ques # :31

If P is standard consistency of the given cement sample , then quantity of water to be added to prepare a cement paste for determining the initial setting time is :-

- 1) $(P/4+3)\%$ of weight of cement
 - 2) $0.85 P\%$ of weight of cement
 - 3) $P\%$ of weight of cement
 - 4) $0.78 P\%$ of weight of cement
-

Ques # :32

Le-Chatelier test detects the unsoundness of cement due to :-

- 1) Excess magnesia only
 - 2) Free lime only
 - 3) Both excess magnesia and free lime
 - 4) None of the above
-

Ques # :33

Aluminium powder in concrete is used as:-

- 1) Retarder
 - 2) Air-entraining agent
 - 3) Accelerator
 - 4) Super plasticizer
-

Ques # :34

The height of the mould (cone) used for slump test is :-

- 1) 450 mm
 - 2) 300 mm
 - 3) 200 mm
 - 4) 100 mm
-

Ques # :35

To control the deflection limit state, the basic values of span to effective depth ratio(As per IS 456-2000) for simply supported and continuous beams are kept as :-

- 1) 20 and 26 respectively
- 2) 7 and 20 respectively

- 3) 26 and 20 respectively
- 4) 20 and 7 respectively

Ques # :36

In limit state design of reinforced concrete structures the partial safety factors for strength of concrete and steel taken as :-

- 1) 1.50 and 1.20 respectively
- 2) 3.00 and 1.50 respectively
- 3) 1.50 and 1.15 respectively
- 4) 2.50 and 1.50 respectively

Ques # :37

A helically reinforced column of 300 mm diameter has 6 bars of 24 mm diameter as longitudinal reinforcement provided at an effective cover of 60 mm and spiral of 8 mm diameter provided at clear cover of 40 mm. The core diameter of the this column is :-

- 1) 212 mm
- 2) 220 mm
- 3) 180 mm
- 4) 204 mm

Ques # :38

In limit state design of reinforced concrete structures the value of limiting neutral axis depth factor ($k_{u,max}$) depends upon :-

- 1) Grade of concrete only
- 2) Grade of steel only
- 3) Grade of concrete and steel both
- 4) None of the these

Ques # :39

A septic tank is :-

- 1) Aerobic method of on-site sewage treatment
- 2) Anaerobic method of on-site sewage treatment
- 3) Physical method of water treatment
- 4) Physico-chemical method of water treatment

Ques # :40

The probability P and the recurrence interval T_r are related as:

- 1) $P=T_r$
- 2) $P=2T_r$
- 3) $P^2=T_r$
- 4) $P=1/T_r$

Ques # :41

If the line of action of the resultant forces on the dam lies outside the middle third of the base, then the dam is susceptible to :-

- 1) Crushing failure
- 2) Tension failure
- 3) Sliding failure
- 4) Overturning failure

Ques # :42

Khosala's formula for the long range run off assumes that the losses are function of :-

- 1) Temperature
- 2) Wind velocity
- 3) Relative Humidity
- 4) Evaporation

Ques # :43

The temporary hardness of water is caused by :-

- 1) Bi-carbonates of calcium and magnesium
- 2) Sulphates of calcium and magnesium
- 3) Chlorides of calcium and magnesium
- 4) Nitrates of calcium and magnesium

Ques # :44

The removal of dissolved organic matter occurs in :-

- 1) Slow sand filters
- 2) Trickling filters
- 3) Rapid sand filters
- 4) Dual media filters

Ques # :45

An isochrone is a line on the basin map :-

- 1) Joining points of having equal reduced levels (R.L.)
- 2) Joining points having equal time of travel of surface-runoff to the catchment outlet
- 3) Joining points having equal rainfall depth in a given time interval
- 4) Joining points which are at equal from the catchment outlet

Ques # :46

A rectangular bar having cross section A, length L, modulus of elasticity E and Poisson's ratio $1/m$, is subjected to axial pull of P. The volumetric strain will be given by :-

1)

$$\frac{PL}{AE} \left(1 - \frac{2}{m} \right)$$

2)

$$\frac{P}{AE} \left(1 - \frac{2}{m} \right)$$

3)

$$\frac{PL}{AE} \left(1 - \frac{1}{m} \right)$$

4)

$$\frac{P}{AE} \left(1 - \frac{1}{m} \right)$$

Ques # :47

In a thin cylindrical shell, the ratio of longitudinal stress to hoop stress is:-

- 1) 0.5
- 2) 1

- 3) 2
4) 4

Ques # :48

The greatest amount of strain energy per unit volume that a material can absorb up to its elastic limit is :-

- 1) Toughness Index
2) Proof resilience
3) Resilience
4) Potential energy

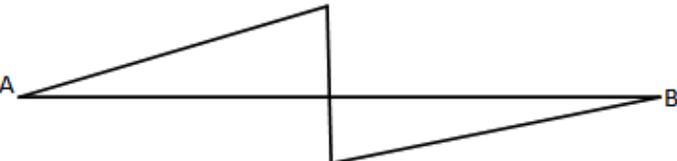
Ques # :49

Ratio of the maximum shear stress intensity to average shear stress intensity for a rectangular section as:-

- 1) $3/2$
2) $4/3$
3) $5/2$
4) $2/1$

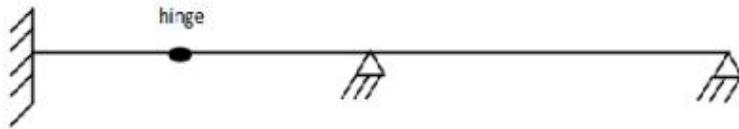
Ques # :50

Shape to the Force Diagram for a simply supported beam(AB) subjected to point load W at the centre of span shall be :-

- 1) 
A B
- 2) 
A B
- 3) 
A B
- 4) 
A B

Ques # :51

The degree of indeterminacy of the following beam for general case of loading is :



- 1) 01
- 2) 02
- 3) 03
- 4) 04

Ques # :52

The moment k required to rotate the near end of a prismatic beam through unit angle without translation, the far end being fixed, is given by :-

- 1) EI/L
- 2) $2EI/L$
- 3) $3EI/L$
- 4) $4EI/L$

Ques # :53

If an element of a stressed body is in the state of pure shear with magnitude of shear stress as 80 N/mm^2 then the principal stress at that element is :-

- 1) 40 N/mm^2
- 2) 120 N/mm^2
- 3) 148 N/mm^2
- 4) 80 N/mm^2

Ques # :54

A cantilever beam of span 3 m is subjected to uniformly distributed load of 80 kN/m throughout the span. Determine the value of point load that can be applied in upward direction at free end in order to give the resulting deflection at free end as zero:-

- 1) 30 kN

- 2) 90 kN
 - 3) 60 kN
 - 4) 80 kN
-

Ques # :55

Which one of the following statements is incorrect when lintels are compared with arches :-

- 1) Lintels are simpler in construction
 - 2) Arches does not require strong abutments (walls) to withstand the arch thrust
 - 3) Arches require more head room to span the openings.
 - 4) Lintels transfer the loads vertically to the walls.
-

Ques # :56

In case of a framed RCC Construction, the form work to be removed first are :-

- 1) Bottom of beams
 - 2) Bottom of roof slab
 - 3) Sides of beams
 - 4) Any of Bottom of beams or Bottom of roof slab
-

Ques # :57

A fluid, which satisfies the relation $\tau = \mu (du/dy)$, where ' τ ' is shear stress,

μ constant of proportionality and (du/dy) is the rate of deformation, is known as :-

- 1) Newtonian fluid
 - 2) Non -Newtonian fluid
 - 3) Thixotropic fluid/substance
 - 4) Plastic
-

Ques # :58

What shall be pressure head of a liquid of specific gravity 0.8 for a pressure head of 100 m of water :-

- 1) 80 m
 - 2) 125 m
 - 3) 160 m
 - 4) 64 m
-

Ques # :59

Hydraulic radius is equal to the :-

- 1) Area divided by the square of wetted perimeter
 - 2) Area divided by the wetted perimeter
 - 3) Wetted perimeter divided by the Area
 - 4) Square root of the area
-

Ques # :60

A list of air pollutants is given below : a) Sulphur dioxide b) Carbon monoxide c) Radioactive substances d) Sulphuric acid Which of these are 'primary' pollutants :-

- 1) 'a' and 'b' only
 - 2) 'a', 'b' and 'c' only
 - 3) 'a' and 'd' only
 - 4) 'c' and 'd' only
-

Ques # :61

A 30-m steel tape was standardized at 20°C.

The tape was used when the ambient temperature was 40°C.

A 30-m length measured with the tape will actually be (take coefficient of expansion of tape material as 15×10^{-6})

- 1) 30.09 m
 - 2) 30.009 m
 - 3) 29.991 m
 - 4) 29.91 m
-

Ques # :62

Two consecutive readings in the levelling data are 1.445 m and 1.955 m. The first is a foresight and the second is a backsight. Then,

- 1) the rise from the first point to second point is 0.51 m.
 - 2) the fall from the first point to second point is 0.51 m.
 - 3) the two readings are taken to the same point from two instrument stations.
 - 4) the level difference between the two points is 3.410 m.
-

Ques # :63

When the contour lines having the same colour interval are farther apart, it shows a :-

- 1) plane surface

- 2) very steep slope
 - 3) gentle slope
 - 4) A valley
-

Ques # :64

The distance formula for finding distances using a theodolite, for a horizontal line of sight, is (K is multiplying constant, s is intercept and C is additive constant):-

- 1) $K + Cs$
 - 2) $Ks + C$
 - 3) $K/s + C$
 - 4) $K + C/s$
-

Ques # :65

A total station can measure :-

- 1) Only distances electronically
 - 2) Only horizontal angles accurately
 - 3) Horizontal and vertical angles and distances
 - 4) vertical angles and distance only
-

Ques # :66

The damp proof course (D.P.C.) is measured is :-

- 1) Meters
 - 2) Sqm.
 - 3) Cubic meters
 - 4) Litres
-

Ques # :67

The water treatment required for water obtained from a deep tube well is :-

- 1) Co agulation and flocculation only
 - 2) Filtration only
 - 3) Disinfection only
 - 4) Co agulation, flocculation and filtration
-

Ques # :68

In a rapid gravity filter :-

- 1) Raw water from a river reservoir is supplied as input
 - 2) Disinfected water is the input
 - 3) Water passed through co agulation tank is the input
 - 4) Water after settling only is the usual input
-

Ques # :69

Drinking water is to have a MAXIMUM content/value of some substances/characteristics. Which of the following does have a limit on its MINIMUM value as well :-

- 1) Total hardness
 - 2) Dissolved solids
 - 3) Turbidity
 - 4) pH
-

Ques # :70

As per IS:1172-1963, water required per head per day for average domestic purposes is approximately equal to :-

- 1) 25 liters
 - 2) 75 liters
 - 3) 135 liters
 - 4) 350 liters
-

Ques # :71

Which one of the following pairs is not correctly matched for bitumen properties :-

- 1) Softening point - Between 35°C to 70°C
 - 2) Specific gravity of pure bitumen - 0.97 to 1.02
 - 3) Pure Bitumen - Completely soluble in carbon tetrachloride
 - 4) Pensky Marten Flash Point - Minimum specified is 50°C
-

Ques # :72

If the velocity, pressure, density etc. do not change at a point with respect to time, the flow is called :-

- 1) Uniform
 - 2) Non uniform
 - 3) Incompressible
 - 4) Steady
-

Ques # :73

Flow in a circular pipe will be laminar if Reynold's number is :

- 1) Less than 2000
 - 2) More than 4000
 - 3) Between 2000 - 4000
 - 4) None of these
-

Ques # :74

Condition favouring the adoption of sprinkler irrigation method is/are :-

- 1) When the water is available with difficulty and is scarce.
 - 2) When the water table is low.
 - 3) When the land soil is excessively permeable or when the soil is 'highly impermeable.'
 - 4) When the water is available with difficulty and is scarce And When the land soil is excessively permeable or when the soil is 'highly impermeable.'
-

Ques # :75

The critical shear stress, at which incipient motion of sediment takes place is proportional to :-

- 1) $\sqrt{\text{particle size}}$
 - 2) $(\text{Particle size})^2$
 - 3) Particle size
 - 4) $(\text{Particle size})^{1/3}$
-

Ques # :76

a lined alluvial canal is best designed on the basis of :-

- 1) Lacey's formula
 - 2) Kennedy's formula
 - 3) Continuity equation
 - 4) Manning's formula
-

Ques # :77

If two canals are taken off from both the flanks of a river at the site of a diversion headwork, then the number of undersluices and divide walls, will respectively be ;

- 1) 2 and 2
- 2) 1 and 1
- 3) 1 and 2

4) 2 and 1

Ques # :78

The 'useful storage' in a dam reservoir is the volume of water stored between :-

- 1) Normal and maximum reservoir levels
 - 2) Minimum and normal reservoir levels
 - 3) Minimum and maximum reservoir levels
 - 4) Up to normal reservoir level including dead storage
-

Ques # :79

The bottom portion of a concrete or a masonry gravity dam is usually stepped, in order to :-

- 1) Increase the shear strength at the base of the dam
 - 2) Decrease the shear strength at the base of the dam
 - 3) Increase the overturning resistance of the dam
 - 4) Increase the weight of the dam only.
-

Ques # :80

If 'p' the precipitation , 'a' is the area represented by a raingauge, and 'n' is the number of raingauges in the catchment area, then the weighted mean rainfall is :-

- 1) $\sum ap/n$
 - 2) $\sum ap^2 / \sum a^2$
 - 3) $\sum ap / \sum a$
 - 4) $\sum ap^3 / \sum a^2$
-

Ques # :81

Bhakra dam of our country is located in the state of :-

- 1) Punjab
- 2) Uttar Pradesh
- 3) Madhya Pradesh
- 4) Himachal Pradesh

Ques # :82

The value of Poisson's ration of the materials lie between :-

- 1) 1 and 2
- 2) 0 and 1/2
- 3) 0 and 1
- 4) 2 and 3

Ques # :83

The value of stress up to which a member regains its original shape or size after load removal is called :-

- 1) Elastic limit
- 2) Proportional limit
- 3) Yield stress
- 4) Plastic limit

Ques # :84

The slope of the bending moment diagram of any section of a loaded beam is :-

- 1) Torsion at the section.
- 2) Maximum shear force of the beam.
- 3) Shear force at that section.
- 4) Maximum bending moment of the beam.

Ques # :85

In conjugate beam, the loading is equal to :-

- 1) Shear force diagram of actual beam
- 2) Bending moment diagram of actual beam
- 3) Loading of actual beam
- 4) M/EI diagram of actual beam

Ques # :86

What kind of bending moments, (if any) are developed at the intermediate support of a continuous beam loaded by vertical loads :-

- 1) Hogging
- 2) Sagging
- 3) No moment
- 4) Mostly sagging, but sometimes zero.

Ques # :87

Written below are same types of structures :- a) Beams b) Frames c) Trusses Miller - Breslau's principle is applicable to which types of structures, select correct answer from the following :-

- 1) (a) only
- 2) (b) only
- 3) (a) and (b) only
- 4) (a) , (b) and (c)

Ques # :88

Silt particle size as per unified soil classification system is :-

- 1) > 4.75 mm
- 2) 0.075 to 4.75 mm
- 3) 0.002 to 0.075 mm
- 4) < 0.002 mm

Ques # :89

A sand sample of 25 cm length was subjected to a constant head permeability in a permeameter having an area of 30 cm². A discharge of 120 cm³ was obtained in a period of 1 minute under a head of 40 cm.

The coefficient of permeability is equal to :-

- 1) (1/240) cm/sec.
- 2) 2.4 cm/sec.
- 3) (1/24) cm/sec.
- 4) 24 cm/sec.

Ques # :90

Which one of the following statements is incorrect is respect to shear strength of granular soils :-

- 1) It is affected largely by the initial void ratio.
- 2) It is not affected by the effective stresses.
- 3) The cohesion value of uncemented granular soil is approximately zero.
- 4) Undrained strength is insignificant except during the earthquake.

Ques # :91

Which of the following statements is incorrect in respect to capillarity in soils :-

- 1) Gravitational water may be removed from soils by drainage.
 - 2) At the water table, the pore water pressure is greater than zero.
 - 3) Capillary water is held above the water table by 'surface tension'.
 - 4) Capillary rise is controlled by pore size and not the grain size, and that the same soil mass with the same D_{10} can have different pore size distributions depending upon soil structure and fabric, geological history etc.
-

Ques # :92

Which one of the following pairs is not correctly matched in context of IS456 provisions for reinforced concrete :-

- 1) Footing Design - Punching shear generally considered.
 - 2) Concrete Cover - Essential for durability.
 - 3) Beams are mostly - without shear reinforcement.
 - 4) Roof slab design may be - Without shear reinforcement.
-

Ques # :93

Side face reinforcement is required when the depth of beam is :-

- 1) Greater than 750 mm
 - 2) Greater than 1000 mm
 - 3) Greater than 300 mm
 - 4) Greater than 500 mm
-

Ques # :94

For design of slabs, IS456 specifies effective span to overall depth ratios, this is to safeguard mainly :-

- 1) Strength Criterion
 - 2) Deflection Criterion
 - 3) Crack widths
 - 4) Temperature stresses
-

Ques # :95

Specify the percentage increase in load carrying capacity (specified in IS456) for a column having longitudinal reinforcement tied with spirals as compared to the allowable load for it with lateral ties :-

- 1) 10%
 - 2) 20%
 - 3) 25%
 - 4) 5%
-

Ques # :96

Which of the following types of losses of prestressing occurs only in pretensioning and not in post-tensioning case :-

- 1) Friction
 - 2) Creep of concrete
 - 3) Relaxation of stress in steel
 - 4) Elastic shortening (deformation) of concrete
-

Ques # :97

The effective length of the fillet weld is :-

- 1) 0.7 X total length
 - 2) **total length - $\sqrt{2}$ X weld size**
 - 3) total length - 2 X throat size
 - 4) total length - 2 X weld size
-

Ques # :98

For same load, unsupported length and end conditions a laced column as compared to a battened column :-

- 1) is stronger
 - 2) is weaker
 - 3) is equally strong
 - 4) cannot be compared
-

Ques # :99

Consider the following statements :- Bearing stiffeners are provided in a plate girder (a) to avoid local bending failure of flange (b) to prevent buckling of web (c) to strengthen the web (d) under uniformly distributed loads. Which of these statements are correct ?

- 1) (a) , (b) and (c)
 - 2) (b) and (c)
 - 3) (a) , (c) and (d)
 - 4) (a) , (b) and (d)
-

Ques # :100

The design wind speed depends upon (a) risk coefficient (b) topography of the area (c) size of the structure of the above,

- 1) (a) , (b) are correct
- 2) (b) , (c) are correct

3) (c) , (a) are correct

4) (a) , (b) and (c) are correct
