(Papers) SSC Junior Engineer Exam Paper - 2018 "held on 22 Jan 2018" Morning Shift

(Civil Engineering)

QID : 101 - Which of the following represent the crushing strength (MPa) for the good quality stone that are used in the construction of buildings?

Options:

1) Less than 20

2) 20 to 60

3) 60 to 80

4) Greater than 100

Correct Answer: Greater than 100

QID : 102 - Which of the following is examined to determine the age of timber?

Options:

1) Annular ring

2) Sapwood

3) Pith

4) Timber defects

Correct Answer: Annular ring

QID : 103 - Which of the following is determined with the help of Le Chatelier's device?

Options:

1) Abrasion resistance
2) Chemical resistance
3) Soundness
4) Strength

Correct Answer: Soundness

QID : 104 - The type of mortar which is used for the construction works carried out in water-logged area is _____.

Options:

1) cement mortar
2) loose mortar
3) mortar of very low consistency
4) mortar having high w/c ratio

Correct Answer: cement mortar

QID : 105 - For M 25 grade concrete, the split tensile strength in terms of percentage of its compressive strength is _____.

Options:

1) 7 to 11%
2) 18 to 28%
3) 28 to 38%
4) 38 to 48%

Correct Answer: 7 to 11%

QID : 106 - Distempers are generally used to coat _____.

Options:

1) compound wall
2) external concrete surfaces
3) interior surface which are not exposed to environment
4) wood works

Correct Answer: interior surface which are not exposed to environment

QID : 107 - Which of the following is commonly used as retarder in cement?

Options:

1) Calcium sulphate

2) Gypsum
3) Potassium carbide
4) Sodium chloride
Correct Answer: Gypsum

QID : 108 - In the process of hydration of OPC, to complete all chemical reaction, the water requirement (expressed as the percentage of cement) is _____.
Options:
1) 5 to 8%
2) 8 to 16%
3) 20 to 25%
4) 35 to 45%
Correct Answer: 20 to 25%

QID : 109 - The slump test is performed to check the _____.
Options:
1) presence of water in cement
2) ratio of concrete ingredients
3) temperature resistance
4) workability of concrete
Correct Answer: workability of concrete

QID : 110 - The reason behind the low expansion and shrinkage of the plywood is _____.
Options:
1) plies are placed at the right angles with each other
2) they are glued under the high pressure
3) they are held in the position with the help of adhesives
4) they are prepared with the help of veneers
Correct Answer: plies are placed at the right angles with each other

QID : 111 - Which one of the following method is used for the approximate estimation?
Options:
1) Both central line and short wall and long wall method
2) Central line method
3) Plinth area method

4) Short wall and long wall method
Correct Answer: Plinth area method

QID : 112 - Accuracy in the measurement of the thickness of the slab or sectional dimension of column and beam (in centimetre) should be _____.
Options:
1) 0.5
2) 1
3) 5
4) 10
Correct Answer: 0.5

QID : 113 - Deduction at T-junction of the wall for total length of the central line is _____.
Options:
1) half of thickness of wall
2) no deduction
3) thickness of wall
4) twice of the thickness of wall
Correct Answer: half of thickness of wall

QID : 114 - For estimation of painted area of semi corrugated asbestos cement sheets, percentage increase in area above plain area is _____.
Options:
1) 0.1
2) 0.14
3) 0.2
4) 0.25
Correct Answer: 0.1

QID : 115 - Scrap value of a property may be _____.
Options:
1) both negative or positive
2) constant

3) negative
4) positive
Correct Answer: both negative or positive

QID : 116 - What is the unit of measuring cornice?
Options:
1) Cubic metre
2) Number
3) Running metre
4) Square metre
Correct Answer: Running metre

QID : 117 - Calculate the number of bricks in 20 cubic metres brick works.
Options:
1) 500
2) 1000
3) 10000
4) 100000
Correct Answer: 10000

QID : 118 - Calculate the area (square metre) of the formwork required for a beam of 2 m span and cross section dimension of 400 mm x 200 mm.
Options:
1) 0.8
2) 0.16
3) 1.2
4) 2
Correct Answer: 2

QID : 119 - The cross section areas of three sections of an embankment at an interval of 40 m are 10 square metres, 15 square metres and 35 square metres. Calculate the quantity of earthwork for the embankment. Use prismoidal method.
Options:
1) 1200

2) 1400

3) 1500

4) 2400

Correct Answer: 1400

QID : 120 - Calculate the annual depreciation (Rs.) of a machine having initial cost of Rs. 10,000. The scrap value is Rs. 1,000 and useful life of 30 years.

Options:

1) 300

2) 367

3) 1333

4) 333333

Correct Answer: 300

QID : 121 - What is the difference between the sum of interior angles of plane triangle and spherical triangle for area of triangle 195 square kilometre on the Earth's surface?

Options:

1) one degree

2) one minute

3) one second

4) one radian

Correct Answer: one second

QID : 122 - Which one of the following is the largest scale?

Options:

1) 1 :500

2) 1 :1000

3) 1 :2500

4) 1 :50000

Correct Answer: 1 :500

QID : 123 - The quadrantal bearing of the line lies in the third quadrant making angle in clockwise with the north is _____.

Options:

1)

$30°$

2)

$45°$

3)

$60°$

4)

$75°$

Correct Answer:

QID : 124 - Calculate the volume of the embankment (in cubic metre) using trapezoidal method, if the cross section areas of the three sections of an embankment at an interval of 30 m are 20 square metres, 40 square metres and 50 square metres.

Options:

1) 1100

2) 1150

3) 2250

4) 2350

Correct Answer: 2250

QID : 125 - Which one is the CORRECT order of the tapes based on their accuracy?

Options:

1) Linen tape > invar tape > metallic tape > steel tape

2) Invar tape > steel tape > metallic tape > linen tape

3) Metallic tape > steel tape > linen tape > invar tape

4) Metallic tape > steel tape > Invar tape > linen tape

Correct Answer: Invar tape > steel tape > metallic tape > linen tape

QID : 126 - In the leveling between two points A and B on the opposite sides of a pond, the level is first set up near the point A and staff reading on A and B are 2.5 m and 2.0 m respectively. Then the level is moved and set near the point B, staff reading on points

A and B are 1.2 m and 1.7 m respectively. Calculate the difference of heights between the two points A and B (in metre).

Options:

1) 0

2) 0.5

3) 1

4) 1.85

Correct Answer: 0

QID : 127 - Calculate the combined correction for curvature and refraction (in m) for a distance of 2 km.

Options:

1) 0.045

2) 0.135

3) 0.269

4) 3.14

Correct Answer: 0.269

QID : 128 - In transit theodolite, the line of the sight can be reversed by revolving the telescope through _____.

Options:

1) 90° in horizontal plane

2) 90° in vertical plane

3) 180° in horizontal plane

4) 180° in vertical plane

Correct Answer: 180° in vertical plane

QID : 129 - Which one is the CORRECT sequence for the temporary adjustment of the theodolite?

Options:

1) Centering, elimination of parallax, leveling, and setting

2) Centering, setting, elimination of parallax and leveling

3) Setting, centering, leveling and elimination of parallax

4) Setting, leveling, elimination of parallax and centering

Correct Answer: Setting, centering, leveling and elimination of parallax

QID : 130 - Which of the following is used for determining the location of station occupied by the plane table?

Options:

1) Both intersection and radiation

2) Intersection method

3) Radiation method

4) Two point problem

Correct Answer: Two point problem

QID : 131 - Which of the following is responsible for the formation of residual soil?

Options:

1) Glaciers

2) Water

3) Wind

4) None of these

Correct Answer: None of these

QID : 132 - The coefficient of gradation and the coefficient of uniformity of a given soil sample is 1.0 and 4.0 respectively. The ratio of effective size to the diameter through which 30% of the total mass is passed is _____.

Options:

1) 1.25

2) 1.5

3) 1.75

4) 2

Correct Answer: 2

QID : 133 - Which of the following shows the CORRECT order of increasing surface areas of the given soil?

Options:

1) Clay < silt < sand < colloids

2) Gravel < silt < colloids < clay

3) Sand < silt < clay < colloids

4) Silt < gravel < colloids < clay
Correct Answer: Sand < silt < clay < colloids

QID : 134 - What is the assumption made about back of wall, in the Rankine's theory of earth pressure?
Options:
1) Plane and rough
2) Plane and smooth
3) Vertical and rough
4) Vertical and smooth
Correct Answer: Vertical and smooth

QID : 135 - Which of the following is CORRECT about the viscosity of gas?
Options:
1) Inversely proportional to the temperature
2) Increases with an increase in the temperature
3) Independent of pressure
4) Independent of temperature
Correct Answer: Increases with an increase in the temperature

QID : 136 - Pressure of 200 kPa is equivalent to the head of z metre of liquid having relative density 1.59. The value of z (m) is _____.
Options:
1) 11.6
2) 11.82
3) 12.82
4) 13.14
Correct Answer: 12.82

QID : 137 - Which one of the following statement is CORRECT about the center of buoyancy?
Options:
1) It is the point where buoyant force act.
2) It coincides with the centroid of volume of water displaced
3) It is the point where buoyant force act. and It coincides with the centroid of volume of

water displaced
4) It acts outside the body.
Correct Answer: It is the point where buoyant force act. and It coincides with the centroid of volume of water displaced

QID : 138 - A longitudinal rectangular surface is hanged into the water such that its top and bottom points are at depth of 1.5 m and 6.0 m respectively. The depth of center of pressure (m) from the top surface is _____.
Options:
1) 3.8
2) 4.2
3) 4.6
4) 4.8
Correct Answer: 4.2

QID : 139 - The velocity potential which follow the equation of continuity is _____.
Options:
1)
$N(\theta-180)^{\circ}E$
2)
$N(\theta-180)^{\circ}W$
3)
$S(\theta-180)^{\circ}E$
4)
$S(\theta-180)^{\circ}W$
Correct Answer:

QID : 140 - At what distance from the boundary layer, the value of the wall shear is three times of the turbulent shear?
Options:
1) 1/3 R
2) 1/2 R
3) 2/3 R
4) 3/4 R

Correct Answer: 2/3 R

QID : 141 - Which of the following statement is CORRECT about the stream lines and equipotential lines?

Options:

1) Both can be drawn graphically for viscous flow around any boundary.

2) Meshes formed by them are always squares.

3) They always meet orthogonally.

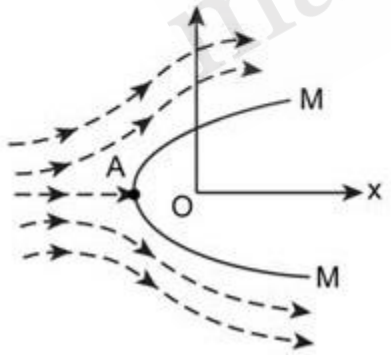
4) They can be calculated for all boundary conditions.

Correct Answer: They always meet orthogonally.

QID : 142 -

The Rankine half oval body MM is subjected to the two-dimensional flow having velocity V. The typical stream line is shown in the following diagram. The point A in diagram shows _____.

रैनाइन **(Rankine)** आधा अंडाकार वस्तु MM, V वेग के साथ दो आयामी प्रवाह के अधीन है। विशिष्ट धारा रेखा निम्नलिखित आरेख में दिखाई गयी है। आरेख में बिंदु A _____ दर्शाता है।



Options:

1) point at which velocity is maximum

2) separation point

3) stagnation point

4) stall point

Correct Answer: stagnation point

QID : 143 - Which of the following is CORRECT ratio for Froude number?

Options:

1) Compressive force to inertia force.

2) Inertia force to gravity force.

3) Inertia force to tension force.

4) Viscous force to inertia force.

Correct Answer: Inertia force to gravity force.

QID : 144 - For the most economical triangular channel section, the angle of sloping sides from the vertical is _____.

Options:

1)

x^2y

2)

x^2-y^2

3)

$\cos x$

4)

x^2+y^2

Correct Answer:

QID : 145 - Method of applying water directly to the root zone of the plant is called _____.

Options:

1) check flooding

2) drip method

3) furrow method

4) sprinkler irrigation

Correct Answer: drip method

QID : 146 - A field of 500 hectares is to be irrigated for a particular crop having 100 days base period. The total depth of water required by the crop is 100 cm. Calculate the duty of the water (in hectares per cubic metre).

Options:

1) 8.64

2) 57.87

3) 86.4

4) 864

Correct Answer: 864

QID : 147 - The traffic volume of a roadway is defined as the multiplication of _____.

Options:

1) speed and time headway

2) speed and distance way

3) traffic density and speed

4) time head way and distance headway

Correct Answer: traffic density and speed

QID : 148 - Calculate the equivalent radius (cm) of the resisting section of 20 cm slab, if the ratio of radius of wheel load distribution to the thickness of the slab is 2.

Options:

1) 20

2) 35.6

3) 40

4) 40.9

Correct Answer: 40

QID : 149 - On peak hourly demand, what is the maximum daily consumption for the city which have average daily consumption of 100,000 m3 ?

Options:

1) 140000

2) 170000

3) 200000

4) 270000

Correct Answer: 270000

QID : 150 - For which of the following, distribution mains is designed?

Options:

1) Average daily demand
2) Annual peak demand
3) Monthly peak demand
4) Maximum hourly demand on maximum day

Correct Answer: Maximum hourly demand on maximum day

QID : 151 - Which of the following statements is true?

A. Most of the loads applied to a building are environmental load.
B. Most of the loads are dead followed by live loads.

Options:

1) Only A
2) Only B
3) Both A and B
4) Neither A nor B

Correct Answer: Only B

QID : 152 - How does an increase in the pitch of the roof affects the amount of load that can be placed on it?

Options:

1) It increases
2) It decreases
3) Remains constant
4) Depends upon case

Correct Answer: It decreases

QID : 153 - What will be the rain load (in psf) if ds is 2 inches and dh is 1 inches?

Options:

1) 5.2
2) 10.4
3) 15.6
4) 20.8

Correct Answer: 15.6

QID : 154 - Concrete is:-

Options:

1) Good in compression, good in tension

2) Good in compression, weak in tension

3) Weak in compression, weak in tension

4) Weak in compression, good in tension

Correct Answer: Good in compression, weak in tension

QID : 155 - If in planar system, X parts/members are there with Y no. of forces, then condition for statically determinacy is:-

Options:

1) $Y < 3X$

$Y < 3X$

2) $Y > 3X$

$Y > 3X$

3) $Y= 3X$

$Y= 3X$

4) None of these

Correct Answer: $Y= 3X$

QID : 156 - If a system has more equations of equilibrium than no. of forces, then the system is:-

Options:

1) Improperly constrained

2) Partially constrained

3) Stable

4) None of these

Correct Answer: Partially constrained

QID : 157 - Which of the following material is not used in making trusses?

Options:

1) Wooden struts

2) Metal bars

3) Channel

4) Concrete

Correct Answer: Concrete

QID : 158 - In a truss it is assumed that the members are joined by_____.

Options:

1) Rough pins

2) Smooth pins

3) Either rough or smooth pins

4) None of these

Correct Answer: Smooth pins

QID : 159 - What is the major difference between truss and beam?

Options:

1) Beam can't transmit load in vertical direction while truss can

2) Truss can't transmit load in vertical direction while beam can

3) Beam can't transmit load in axial direction while truss can

4) Truss can't transmit load in axial direction while beam can

Correct Answer: Truss can't transmit load in vertical direction while beam can

QID : 160 - Given that J is no. of joints. B and R are no. of members and no. of reactions.

If B = 4, R = 3 and J = 4, then the truss is:-

Options:

1) Statically determinate

2) Statically indeterminate and stable

3) Stable

4) Unstable

Correct Answer: Unstable

QID : 161 - Which IS code gives details regarding water to be used in concrete?

Options:

1) IS 456

2) IS 383

3) IS 565

4) IS 3012

Correct Answer: IS 456

QID : 162 - Which of the below is an example of plasticizer?

Options:

1) Hydroxylated carboxylic acid

2) Fluoro-silicate

3) Gypsum

4) Surkhi

Correct Answer: Hydroxylated carboxylic acid

QID : 163 - How many methods of batching of concrete are there?

Options:

1) 2

2) 3

3) 5

4) 6

Correct Answer: 2

QID : 164 - Concrete is generally placed on a:

Options:

1) Form work

2) Stand

3) Mould

4) Platform

Correct Answer: Form work

QID : 165 - The effective width of a column strip of a flat slab is taken as

Options:

1) one-fourth the width of the panel

2) half the width of the panel

3) half the diameter of the column

4) the diameter of the column

Correct Answer: half the width of the panel

QID : 166 - Permanent dimension changes due to loading of concrete is termed as:

Options:

1) Strain

2) Extent

3) Creep

4) Ambit

Correct Answer: Creep

QID : 167 - In design of R.C.C. structures, the tensile strength of concrete is taken as:

Options:

1) 5N/mm2

2) 2N/mm2

3) 0.3N/mm2

4) None of these

Correct Answer: None of these

QID : 168 - Flexure strength of concrete is determined as:

Options:

1) Modulus of rigidity

2) Modulus of rupture

3) Modulus of plasticity

4) Modulus of elasticity

Correct Answer: Modulus of rupture

QID : 169 - Properties of concrete can broadly be divided into:

Options:

1) 1

2) 4

3) 2

4) 3

Correct Answer: 2

QID : 170 - Which IS code gives specifications about cement plaster?

Options:

1) IS 1500

2) IS 1221

3) IS 1400

4) IS 1661

Correct Answer: IS 1661

QID : 171 - In a lime-cement plaster, ratio 1:1:6 corresponds to:

Options:

1) Lime:cement:sand

2) Cement:Lime:sand

3) Lime:sand:gravel

4) Cement:sand:gravel

Correct Answer: Cement:Lime:sand

QID : 172 - On which of the following does the correct proportion of ingredients of concrete depend upon?

Options:

1) bulking of sand

2) water content

3) absorption and workability

4) All option are correct

Correct Answer: All option are correct

QID : 173 -

If X, Y and Z are fineness moduli of coarse fine and combined aggregates, the percentage (P) of fine aggregates to combined aggregates is

अगर मोटे, महीन और संयोजित पूंज का सूक्ष्मता गुणांक X, Y और Z हैं, तो महीन पुंज और संयोजित पुंज का प्रतिशत (P) है

1] $P = \frac{Z-X}{Z-y} \times 100$

2] $P = \frac{X-Z}{Z-Y} \times 100$

3] $P = \frac{X-Z}{Z+Y} \times 100$

4] $P = \frac{X+Z}{Z-Y} \times 100$

Options:

1) [1] Only

2) [2] Only

3) [3] Only

4) [4] only

Correct Answer: [2] Only

QID : 174 - Which of the following statements is false?

Options:

1) Workability of the concrete mix decreases with an increase in the moisture content

2) Concrete for which preliminary tests are conducted, is called controlled concrete

3) Bulking of sand depends upon the fineness of grains

4) All option are correct

Correct Answer: All option are correct

QID : 175 - Which of the following statements is false?

Options:

1) Space between the exterior walls of a warehouse and bag piles should be 30 cm

2) Cement bags should preferably be piled on wooden planks

3) Cement bags should be placed such that bags of one layer does not touch the bags of the adjacent layer

4) None of these

Correct Answer: None of these

QID : 176 - Which of the following statements is false?

Options:

1) With passage of time, the strength of cement increases

2) With passage of time, the strength of cement decreases

3) After a period of 24 months, the strength of cement reduces to 50%

4) The concrete made with storage deteriorated cement gains strength with time

Correct Answer: With passage of time, the strength of cement increases

QID : 177 - For a concrete mix 1:3:6 and water cement ratio 0.6 both by weight, what is the quantity of water required per bag?

Options:

1) 10 kg

2) 12 kg

3) 14 kg

4) None of these

Correct Answer: 14 kg

QID : 178 - Transport of concrete by pumps, is done for a distance of

Options:

1) 100 m

2) 200 m

3) 300 m

4) 400 m

Correct Answer: 400 m

QID : 179 - The compression in PSC is done by _____ of high-strength tendons.

Options:

1) Compression
2) Tensioning
3) Shearing
4) Bending

Correct Answer: Tensioning

QID : 180 - In which beam tension capacity of steel is greater than combined compression capacity of steel and concrete?

Options:

1) Over-reinforced
2) Under-reinforced
3) Singly reinforced
4) Doubly reinforced

Correct Answer: Over-reinforced

QID : 181 -

A simply supported beam carries a varying load from zero at one end and w at the other end. If the length of the beam is a, the maximum bending moment will be

सामान्य रूप से समर्थित बीम के एक छोर का भार w है और दूसरे छोर का भार w है। अगर बीम की लंबाई a है, तो अधिकतम वंकन आघूर्ण होगा

A] $\frac{wa}{27}$

B] $\frac{wa^2}{27}$

C] $\frac{w^2a}{\sqrt{27}}$

D] $\frac{wa^2}{9\sqrt{3}}$

Options:

1) A Only

2) B Only

3) C Only

4) D Only

Correct Answer: C Only

QID : 182 - For a circular slab carrying a uniformly distributed load, the ratio of the maximum negative to maximum positive radial moment is

Options:

1) 1

2) 2

3) 3

4) 4

Correct Answer: 2

QID : 183 -

If W is total load per unit area on a panel, D is the diameter of the column head, L is the span in two directions, then the sum of the maximum positive bending moment and average of the negative bending moment for the design of the span of a square flat slab, should not be less than

अगर पैनल पर कुल भार प्रति इकाई क्षेत्र W है, स्तंभ के शीर्ष का व्यास D है, दो दिशाओं में पाट L है, तो वर्गाकार समतल फलक के पाट की डिज़ाइन के लिए अधिकतम धनात्मक वंकन आघूर्ण और ऋणात्मक वंकन आघूर्ण के औसत का योगफल इससे कम नहीं होना चाहिए

A] $\frac{WL}{12}\left(L-\frac{2D}{3}\right)^2$ B] $\frac{WL}{10}\left(L+\frac{2D}{3}\right)^2$

C] $\frac{WL}{10}\left(L-\frac{2D}{3}\right)^2$ D] $\frac{WL}{12}\left(L-\frac{D}{3}\right)^2$

Options:

1) [1] Only

2) [2] Only

3) [3] Only

4) [4] Only

Correct Answer: [1] Only

QID : 184 - The breadth of a ribbed slab containing two bars must be between

Options:

1) 6 cm to 7.5 cm

2) 8 cm to 10 cm

3) 10 cm to 12 cm

4) None of these

Correct Answer: 8 cm to 10 cm

QID : 185 - A foundation rests on which of the following?
Options:
1) base of the foundation
2) sub grade
3) foundation soil
4) Both Sub grade and foundation soil
Correct Answer: Both Sub grade and foundation soil

QID : 186 - Which of the following statements is true?
Options:
1) To ensure uniform pressure distribution, the thickness of the foundation is kept uniform throughout
2) To ensure uniform pressure distribution, the thickness of the foundation is increased gradually towards the edge
3) To ensure uniform pressure distribution, the thickness of the foundation is decreased gradually towards the edge
4) To ensure uniform pressure distribution, the thickness of the foundation is kept zero at the edge
Correct Answer: To ensure uniform pressure distribution, the thickness of the foundation is decreased gradually towards the edge

QID : 187 - The weight of a foundation is assumed as which of the following?
Options:
1) 5% of wall weight
2) 7% of wall weight
3) 10% of wall weight
4) 12% of wall weight
Correct Answer: 10% of wall weight

QID : 188 - If the width of the foundation for two equal columns is restricted, the shape of the footing generally adopted is
Options:
1) Square
2) rectangular

3) trapezoidal
4) triangular
Correct Answer: rectangular

QID : 189 - Maximum shear stress theory for the failure of a material at the elastic limit is known as
Options:
1) Guest's or Trecas' theory
2) St.Venant's theory
3) Rankine's theory
4) Haig's theory
Correct Answer: Guest's or Trecas' theory

QID : 190 -

If permissible compressive stress in concrete is 50 kg/cm^2, tensile stress in steel is 1400 kg/cm^2 and modular ratio is 18, the depth of the beam is

अगर कंक्रीट में अनुमत सम्पीड़न प्रतिबल 50 किग्रा/सेमी2 है, इस्पात में तनन प्रतिबल 1400 किग्रा/सेमी2 है और प्रमापीय अनुपात 18 है, तो बीम की गहराई है

1] $d = \sqrt{\frac{0.11765 x B.M.}{breadth}}$

2] $d = \sqrt{\frac{0.22765 x B.M.}{breadth}}$

3] $d = \sqrt{\frac{0.33765 x B.M.}{breadth}}$

4] $d = \sqrt{\frac{0.44765 x B.M.}{breadth}}$

Options:

1) A Only
2) B Only
3) C Only
4) D Only

Correct Answer: D Only

QID : 191 - When not specified, the volume of steel in R.C.C. work is taken as:-

Options:

1) 1% to 1.6% of R.C.C. volume
2) 2% to 4% of R.C.C. volume
3) 4% to 6% of R.C.C. volume
4) 0.6% to 1% of R.C.C. volume

Correct Answer: 0.6% to 1% of R.C.C. volume

QID : 192 - The ratio of maximum shear stress to average shear stress of a circular beam is:

A. 2/3
B. 3/2
C. 3/4
D. 4/3

Options:

1) A Only
2) B Only
3) C Only
4) D Only

Correct Answer: D Only

QID : 193 - The property of a material by which it can be beaten or rolled into plates, is called

Options:

1) ductility
2) plasticity
3) elasticity
4) None of these

Correct Answer: None of these

QID : 194 - What is the limit to Poisson's ratio?

Options:

1) 0.1

2) 0.2

3) 0.3

4) None of these

Correct Answer: None of these

QID : 195 - Among the following, which is least elastic?

Options:

1) Iron

2) Copper

3) Both Copper and Silver

4) Rubber

Correct Answer: Rubber

QID : 196 - Two bars of different materials are of the same size and are subjected to same tensile forces. If the bars have unit elongations in the ratio of 4 : 7, then the ratio of modulius of elasticity of the two materials is

A. 4:7

B. 4:10

C. 16:49

Options:

1) A Only

2) B Only

3) C Only

4) None of these

Correct Answer: None of these

QID : 197 - If a composite bar of steel and copper is heated, then the copper bar will be under:

Options:

1) tension

2) shear

3) torsion

4) None of these

Correct Answer: None of these

QID : 198 - Pick up the incorrect statement from the following : The torsional resistance of a shaft is directly proportional to

Options:

1) modulus of rigidity
2) angle of twist
3) reciprocal of the length of the shaft
4) moment of inertia of the shaft section.

Correct Answer: moment of inertia of the shaft section.

QID : 199 - Net sectional area of a tension member, is equal to its cross section area_____.

Options:

1) plus the area of the rivet holes
2) divided by the area of rivet holes
3) multiplied by the area of the rivet holes
4) minus the area of the rivet holes

Correct Answer: minus the area of the rivet holes

QID : 200 - When a tension member consists of two channel sections, the allowance for rivet hole is made for two holes from

Options:

1) each web
2) each flange
3) each web or one hole from each flange whichever is more
4) each web or one hole from each flange whichever is less

Correct Answer: each web or one hole from each flange whichever is less