DDA JE

Previous Year Paper

(JE CIVIL)
24 April 2018 Shift 1

EdCIL - DDA JE (Civil & Elect) Exam

Participant ID:	
Participant Name:	
Test Center Name:	
Test Date:	24/04/2018
Test Time:	9:00 AM - 11:00 AM
Subject:	JE CIVIL

Section : Domain

Q.1 The intensity of loading at the base or the foundation which would cause shear failure of the soil support is called as:

Ans ✔ 1. Ultimate bearing capacity

✘ 2. Allowable bearing capacity

✘ 3. Safe bearing capacity

✘ 4. Net soil pressure

Question ID : **9497309592**
Status : **Answered**
Chosen Option : **1**

Q.2 What is the effect of ambient temperature on the ultimate Biological Oxygen Demand or BOD of a waste?

Ans ✘ 1. Increases with the temperature

✘ 2. Decreases with the temperature

✔ 3. Remains unaffected by the temperature

✘ 4.
Increases exponentially with the temperature

Question ID : **9497309610**
Status : **Not Answered**
Chosen Option : **--**

Q.3 As per the recommended method by the Indian standard, which of the following is NOT required as an input parameter for concrete mix design?

Ans ✘ 1. Workability

✘ 2. Characteristic strength

✔ 3. Fineness modulus of sand

✘ 4. Maximum size of aggregate

Question ID : **9497309561**
Status : **Answered**
Chosen Option : **3**

Q.4 In a bubble tube used in surveying equipments, when the temperature rises, the length of the bubble:

Ans ✘ 1. remains unaltered

✘ 2. decreases

✔ 3. increases

✘ 4.
is independent of the variation in temperature

Question ID : **9497309577**
Status : **Answered**
Chosen Option : **3**

Q.5 VG30 grade of paving bitumen is suitable for 7 day Average Maximum Air Temperature (°C) ranging between:

Ans ✔ 1. 38 − 45

Question ID : **9497309553**
Status : **Not Answered**

✗ 2. 0 − 30

✗ 3. 45 − 60

✗ 4. 30 − 38

Q.6 As per IS 456, a concrete of compressive strength 50 MPa will have an estimated strength in flexure approximately equal to:

Ans ✓ 1. 5

✗ 2. 3

✗ 3. 6

✗ 4. 4

Question ID : 9497309563
Status : **Answered**
Chosen Option : **1**

Q.7 Spacing of longitudinal bars measured along the periphery of the column shall not exceed X mm, where X is:

Ans ✗ 1. 250

✗ 2. 350

✗ 3. 450

✓ 4. 300

Question ID : 9497309566
Status : **Answered**
Chosen Option : **4**

Q.8 Which of the following is true about the dissolved oxygen levels in water streams?

Ans ✗ 1. It is maximum at around midnight.

✓ 2. It is maximum around noon.

✗ 3. It is minimum around noon.

✗ 4. It does not vary during the day time.

Question ID : 9497309586
Status : **Answered**
Chosen Option : **1**

Q.9 The design of a sewer is such that it attends self-cleansing velocity at:

Ans ✗ 1. daily average rate of flow

✗ 2. maximum hourly rate of flow

✓ 3. minimum hourly rate of flow

✗ 4. sewer running 75% full

Question ID : 9497309590
Status : **Answered**
Chosen Option : **4**

Q.10 The minimum water content at which the soil just begins to crumble when rolled into threads 3 mm in diameter, is known as:

Ans ✗ 1. Yield limit

✗ 2. Liquid limit

✗ 3. Shrinkage limit

✓ 4. Plastic limit

Question ID : 9497309616
Status : **Answered**
Chosen Option : **3**

Q.11 A soft water would have hardness (in mg/l):

Ans ✓ 1. < 60

✗ 2. 60-150

✗ 3. 150-180

✗ 4. > 180

Question ID : 9497309615
Status : **Not Answered**
Chosen Option : **--**

Q.12 Which of the following is NOT an advantage of the Shear box test used for estimating the cohesion and friction angle?

Ans

✗ 1. Easy and quick

✗ 2. Useful in determining residual strength

✗ 3. Shearing along predetermined planes

✓ 4. Undrained strengths are reliable

Question ID : **9497309595**
Status : **Answered**
Chosen Option : **3**

Q.13 The effective length of a steel column with restrained translation and rotation at both the ends is p times the physical length L, where p is:

Ans

✓ 1. 0.65

✗ 2. 1.20

✗ 3. 1.00

✗ 4. 2.00

Question ID : **9497309568**
Status : **Answered**
Chosen Option : **1**

Q.14 Which of the following is a sedimentary rock?

Ans

✓ 1. Gypsum

✗ 2. Quartzite

✗ 3. Pumice

✗ 4. Granite

Question ID : **9497309556**
Status : **Answered**
Chosen Option : **2**

Q.15 Which of the following materials will have the least permeability?

Ans

✗ 1. Gravels

✗ 2. Silts

✓ 3. Clays

✗ 4. Sands

Question ID : **9497309600**
Status : **Answered**
Chosen Option : **3**

Q.16 The cylinder strength of concrete is usually taken as X times that of the cube strength in compression, where X is:

Ans

✓ 1. 0.85

✗ 2. 0.75

✗ 3. 1.00

✗ 4. 0.95

Question ID : **9497309562**
Status : **Answered**
Chosen Option : **2**

Q.17 The usual detention period (in hours) for oxidation ponds is generally ranging between:

Ans

✗ 1. 12 – 24

✗ 2. 4 – 6

✗ 3. 600 – 900

✓ 4. 168 – 1008

Question ID : **9497309588**
Status : **Not Answered**
Chosen Option : **--**

Q.18 According to IS 800, what is the allowable effective slenderness ratio for a member carrying compressive loads resulting from dead loads and imposed loads?

Ans

✗ 1. 200

Question ID : **9497309567**
Status : **Answered**

❌ 2. 300

✅ 3. 180

❌ 4. 250

Q.19 While studying the consolidation of a soil mass, the method of square root of time method is used primarily to determine:

Ans

✅ 1. coefficient of volume compressibility

❌ 2. time factor

❌ 3. coefficient of compressibility

❌ 4. coefficient of consolidation

Question ID : **9497309591**
Status : **Answered**
Chosen Option : **2**

Q.20 Two structural steel plates of thicknesses 12 mm and 14 mm are to be welded together. What will be the maximum size of fillet weld?

Ans

❌ 1. 6.00

✅ 2. 10.50

❌ 3. 13.00

❌ 4. 12.50

Question ID : **9497309594**
Status : **Answered**
Chosen Option : **1**

Q.21 The hydraulic grade line for flow in a pipe of constant internal diameter _____.

Ans

❌ 1. coincides with the physical centerline of the pipe

❌ 2. is always above the centerline of the pipe

✅ 3. is always sloping down in the direction of flow

❌ 4. is always above the total energy grade line

Question ID : **9497309582**
Status : **Answered**
Chosen Option : **3**

Q.22 A hydraulic jump occurs when the grade changes from:

Ans

❌ 1. mild to milder

❌ 2. mild to steep

❌ 3. steep to steeper

✅ 4. steep to mild

Question ID : **9497309627**
Status : **Answered**
Chosen Option : **2**

Q.23 Which of the following tests on workability of concrete is most suitable for measuring the workability of roller compacted concrete?

Ans

❌ 1. Kelly-ball test

❌ 2. Slump flow test

❌ 3. Compaction factor test

✅ 4. Vebe test

Question ID : **9497309558**
Status : **Answered**
Chosen Option : **3**

Q.24 Which of the following is NOT a permanent adjustment for a theodolite?

Ans

✅ 1. Elimination of parallax

Question ID : **9497309573**
Status : **Answered**

✗ 2. Adjustment of the vertical circle index

✗ 3. Adjustment of the telescope

✗ 4. Adjustment of the horizontal plate level

Q.25 According to Coulomb's wedge theory, the active earth pressure slides the wedge:

Ans ✗ 1. horizontally inwards and parallel to the base

✗ 2. up and inwards on a slip surface

✔ 3. down and outwards on a slip surface

✗ 4. horizontally upwards and parallel to the base

Question ID : 9497309583
Status : **Answered**
Chosen Option : **1**

Q.26 For conveyance of water, compared to other materials, cement concrete pipes are preferred because these have all the following advantages, EXCEPT:

Ans ✗ 1. Durable with useful life of up to 75 years

✗ 2. Maintenance cost is low

✔ 3. Light and easy to transport

✗ 4. Usually, there is no danger of rusting

Question ID : 9497309585
Status : **Answered**
Chosen Option : **3**

Q.27 According to IS:10500-2012, what is the acceptable limit (in mg/l) of total dissolved solids?

Ans ✗ 1. 2000

✗ 2. 1000

✔ 3. 500

✗ 4. 250

Question ID : 9497309614
Status : **Answered**
Chosen Option : **1**

Q.28 The lap length in compression shall not be less than p times the diameter of the rebar, where p is:

Ans ✗ 1. 12

✗ 2. 32

✔ 3. 24

✗ 4. 20

Question ID : 9497309624
Status : **Answered**
Chosen Option : **1**

Q.29 Which of the following is NOT a coagulant used for water?

Ans ✔ 1. Phenolphthalein

✗ 2. Sodium Aluminate

✗ 3. Polyelectrolytes

✗ 4. Aluminium sulphate

Question ID : 9497309574
Status : **Not Answered**
Chosen Option : **--**

Q.30 The sight taken on a levelling staff held at a point of unknown elevation to ascertain the amount by which the point is above or below the line of sight, is called as:

Ans ✗ 1. Change point

Question ID : 9497309571
Status : **Answered**

✔ 2. Fore sight

✘ 3. Back sight

✘ 4. Station

Q.31 The maximum spacing of vertical reinforcement in RCC wall should not exceed:

Ans ✔ 1. 3 times the wall thickness

✘ 2. 2 times the wall thickness

✘ 3. the wall thickness

✘ 4. 1.5 times the wall thickness

Question ID : 9497309598
Status : **Answered**
Chosen Option : **1**

Q.32 What does Chemical Oxygen Demand or COD indicate?

Ans ✘ 1. Age of the sewage

✔ 2. Biodegradability of waste water

✘ 3. Strength of a sewage

✘ 4. Potential for recycling of wastewater

Question ID : 9497309611
Status : **Not Answered**
Chosen Option : **--**

Q.33 For which of the following deformations are RCC deep beams primarily designed?

Ans ✘ 1. Shear and bending

✔ 2. Shear

✘ 3. Bending

✘ 4. Bearing

Question ID : 9497309597
Status : **Answered**
Chosen Option : **1**

Q.34 What does the slope of a bending moment curve as a function of distance represent?

Ans ✘ 1. The load applied

✘ 2. The stiffness at that location

✘ 3. The deflection

✔ 4. The shear force at that section

Question ID : 9497309603
Status : **Answered**
Chosen Option : **4**

Q.35 In case of pin ended column, the critical load is X times that of Euler load, where X is:

Ans ✘ 1. 4

✘ 2. 3

✔ 3. 1

✘ 4. 2

Question ID : 9497309605
Status : **Answered**
Chosen Option : **1**

Q.36 According to the Newton's law of viscosity for materials in liquid state, the shear stress is:

Ans ✔ 1.
directly proportional to the rate of angular deformation

✘ 2.

Question ID : 9497309579
Status : **Answered**
Chosen Option : **1**

inversely proportional to the rate of angular deformation

✗ 3.

inversely proportional to angular deformation

✗ 4. directly proportional to angular deformation

Q.37 For two-way slabs of short spans (up to 3.5 m) constructed with high strength deformed steel reinforcement, the span to overall depth ratio for a continuous slab will generally be assumed to satisfy vertical deflection limits for loading class up to 3 kN/m², if the ratio is less than:

Ans
✗ 1. 35
✗ 2. 40
✓ 3. 32
✗ 4. 28

Question ID : 9497309625
Status : **Answered**
Chosen Option : **1**

Q.38 What is the objective of providing intermediate vertical stiffeners in plate girders?

Ans
✗ 1. Eliminating local buckling
✗ 2. Preventing excessive mid-span deflection
✓ 3. Eliminating web-buckling
✗ 4.
Transferring concentrated loads without any local stresses

Question ID : 9497309609
Status : **Answered**
Chosen Option : **3**

Q.39 जल के शुद्धिकरण के दौरान, निम्न में से किस प्रक्रिया द्वारा 1 μm रेंज के कणों को सर्वोत्तम तरीके से हटाया जा सकता है?

Ans
✗ 1. रासायनिक अवक्षेपण
✓ 2. रसायन समर्थित स्कंदन
✗ 3. निस्यंदन
✗ 4. अवसादन

Question ID : 9497309587
Status : **Answered**
Chosen Option : **4**

Q.40 Generally, on a stress-strain plot for steel following points are observed:

A. Elastic limit
B. Yield point
C. Ultimate strength
D. Rupture strength

What is the right chronology of the appearance of these points during testing?

Ans
✗ 1. D-A-B-C
✗ 2. A-C-B-D
✗ 3. A-C-D-B
✓ 4. A-B-C-D

Question ID : 9497309593
Status : **Answered**
Chosen Option : **4**

Q.41 What is the objective of providing minimum tension steel in reinforced cement concrete beam?

Ans
✓ 1. Preventing surface hair cracking
✗ 2. Preventing brittle failure
✗ 3. Restrict deflections at the support

Question ID : 9497309596
Status : **Answered**
Chosen Option : **2**

✗ 4. Arrest excessive deflection

Q.42 What is the range of Silicon oxide present in ordinary Portland cement?

Ans ✗ 1. $3 - 8$

✗ 2. $60 - 67$

✗ 3. $25 - 30$

✔ 4. $17 - 25$

Question ID : **9497309552**
Status : **Answered**
Chosen Option : **4**

Q.43 What are the dimensions of Manning's constant?

Ans ✗ 1. $L^{0.67}T^2$

✗ 2. $L^{0.5}T^{-1}$

✗ 3. $L^{0.5}T^2$

✔ 4. $L^{-0.33}T$

Question ID : **9497309628**
Status : **Not Answered**
Chosen Option : **--**

Q.44 Minor losses in a pipe flow are:

Ans ✔ 1. local disturbances from pipe fittings

✗ 2. losses caused by frictional losses

✗ 3. losses that can always be neglected

✗ 4. losses caused by the gradient

Question ID : **9497309618**
Status : **Answered**
Chosen Option : **3**

Q.45 In a reinforced concrete compression member, the pitch of the lateral reinforcement is given by the minimum of three of the following EXCEPT:

Ans ✗ 1. least lateral dimension of the compression member

✔ 2. 250 mm

✗ 3. 300 mm

✗ 4. 16 times the smallest diameter of longitudinal rebar to be tied

Question ID : **9497309623**
Status : **Answered**
Chosen Option : **2**

Q.46 For which of the following is chain surveying NOT suitable?

Ans ✗ 1. Factory sites

✔ 2. Undulating areas

✗ 3. Fairly levelled ground

✗ 4. Small areas

Question ID : **9497309569**
Status : **Answered**
Chosen Option : **2**

Q.47 The liquid limit of a soil is 40% and plasticity index is 20%. This soil will be:

Ans ✗ 1. ML

✗ 2. CH

✔ 3. CI

Question ID : **9497309619**
Status : **Answered**
Chosen Option : **1**

✗ 4. CL

Q.48 Which of the following is NOT attributable to the phenomenon of consolidation of soil?

Ans ✗ 1. Time dependent phenomenon

✓ 2. Volume reduction is due to expulsion of air

✗ 3. Occurs when soil is loaded with external load or self-weight

✗ 4. Soil is completely saturated

Question ID : **9497309613**
Status : **Answered**
Chosen Option : **2**

Q.49 Which of the following strengths is most important for pavement concrete?

Ans ✗ 1. Tensile

✓ 2. Flexural

✗ 3. Compressive

✗ 4. Shear

Question ID : **9497309564**
Status : **Answered**
Chosen Option : **1**

Q.50 A clay is called as quick, if its sensitivity is:

Ans ✓ 1. > 15

✗ 2. 1 – 4

✗ 3. 4 – 8

✗ 4. 8 – 15

Question ID : **9497309620**
Status : **Answered**
Chosen Option : **4**

Q.51 Which of the following is NOT an essential operation in setting up a plane table for surveying?

Ans ✗ 1. Sighting the ground station

✓ 2. Measuring the ambient temperature

✗ 3. Setting up the plane table

✗ 4. Fixing of plane table on a tripod

Question ID : **9497309570**
Status : **Answered**
Chosen Option : **2**

Q.52 To which of the following conditions can the Bernoulli's equation between any two points be applied?

Ans ✗ 1. Any irrotational flow

✗ 2. Rotational flow of an incompressible fluid

✓ 3. Steady, irrotational flow of incompressible fluid

✗ 4. Steady, rotational flow of incompressible fluid

Question ID : **9497309581**
Status : **Answered**
Chosen Option : **3**

Q.53 The gases that evolve out from sludge digestion tank mainly consist of:

Ans ✗ 1. Carbon monoxide

✗ 2. Nitrogen Oxide

Question ID : **9497309617**
Status : **Not Answered**
Chosen Option : **--**

Q.54 The timber having a durability life of more than 120 months is classified as having _____ durability.

Ans
✘ 1. medium

✘ 2. moderate

✔ 3. high

✘ 4. low

Question ID : **9497309554**
Status : **Answered**
Chosen Option : **2**

Q.55 If D60 = 3 mm, D30 = 1.5 mm and D10 = 0.75 mm, then what will be the coefficient of uniformity of this soil?

Ans
✘ 1. 1.0

✘ 2. 0.5

✘ 3. 2.0

✔ 4. 4.0

Question ID : **9497309621**
Status : **Answered**
Chosen Option : **4**

Q.56 In general, sheepfoot rollers are the most suitable for which of the following soils?

Ans
✘ 1. Silt

✔ 2. High plasticity clay

✘ 3. Sands

✘ 4. Gravels

Question ID : **9497309608**
Status : **Answered**
Chosen Option : **3**

Q.57 The maximum spacing of shear reinforcement measured along the axis of the member shall not exceed m times the effective depth of the section for vertical stirrups, where m is:

Ans
✔ 1. 0.75

✘ 2. 0.50

✘ 3. 1.25

✘ 4. 1.00

Question ID : **9497309565**
Status : **Answered**
Chosen Option : **1**

Q.58 In an orifice used for flow measurement, the coefficient of velocity is always:

Ans
✘ 1. equal to unity

✘ 2. a non-zero negative number

✔ 3. less than unity

✘ 4. greater than unity

Question ID : **9497309601**
Status : **Answered**
Chosen Option : **3**

Q.59 Which of the following is NOT an advantage of Slow sand filters?

Ans
✘ 1. Skilled supervision is not essential

✘ 2. Low cost of operation

✘ 3. Low depreciation cost

✔ 4.
Requires smaller area compared to gravity sand filters for its installation

Question ID : **9497309584**
Status : **Not Answered**
Chosen Option : **--**

Q.60 Steady flow in an open channel exists when the:

Ans
- ✗ 1. channel is frictionless
- ✗ 2. channel bed is not curved
- ✔ 3. depth remains constant with time
- ✗ 4. flow is uniform

Question ID : 9497309630
Status : **Answered**
Chosen Option : **3**

Q.61 Which of the following measures must be undertaken for cold weather concreting?

Ans
- ✗ 1. Cooling aggregates
- ✗ 2. Nitrogen purging
- ✗ 3. Adding chilled water
- ✔ 4. Heating of water

Question ID : 9497309599
Status : **Answered**
Chosen Option : **2**

Q.62 In case of open channel flow, at critical depth, the discharge is:

Ans
- ✔ 1. maximum for a given specific energy
- ✗ 2. maximum for a given specific force
- ✗ 3. minimum for a given specific energy
- ✗ 4. minimum for a given specific force

Question ID : 9497309629
Status : **Answered**
Chosen Option : **2**

Q.63 The vertical angle between the longitudinal axis of a suspended magnetic needle and the horizontal line is referred as:

Ans
- ✗ 1. Azimuth
- ✗ 2. Declination
- ✔ 3. Dip
- ✗ 4. Bearing

Question ID : 9497309576
Status : **Answered**
Chosen Option : **3**

Q.64 Which of the following factors does not influence the durability of concrete?

Ans
- ✔ 1. Exposing the concrete to the Sun
- ✗ 2. Shape of the member
- ✗ 3. Workmanship of construction
- ✗ 4. Cover to rebar

Question ID : 9497309631
Status : **Answered**
Chosen Option : **2**

Q.65 Which of the following materials, in general, will offer strength gain for the longest period?

Ans
- ✔ 1. Fly ash
- ✗ 2. Rice husk ash
- ✗ 3. Slag
- ✗ 4. Micro silica

Question ID : 9497309560
Status : **Answered**
Chosen Option : **4**

Q.66 According to IS 456, a concrete completely immersed in sea water will be considered to be exposed to which of the following conditions?

Ans
- ✅ 1. Severe
- ❌ 2. Mild
- ❌ 3. Extreme
- ❌ 4. Moderate

Q.67 The maximum bending moment for a simply supported beam of span L and supporting a udl of intensity p will be:

Ans
- ❌ 1. $\dfrac{pL^2}{16}$
- ✅ 2. $\dfrac{pL^2}{8}$
- ❌ 3. $\dfrac{pL^2}{20}$
- ❌ 4. $\dfrac{pL^2}{12}$

Q.68 In a distribution network of pipes:

Ans
- ✅ 1. the sum of piezometric head drops around each elementary circuit is zero.
- ❌ 2. the sum of discharges around each elementary circuit is zero.
- ❌ 3. the total head at each node is the same.
- ❌ 4. the piezometric head loss in each arm of the circuit is the same.

Q.69 Which of the following is NOT an advantage of sedimentation tank used for purifying water?

Ans
- ❌ 1. Have little loss of head
- ❌ 2. Area required is less
- ✅ 3. There is no wastage of time
- ❌ 4. Require less labour and supervision

Q.70 For a structural steel based construction in which, the connections between members (beam and column) at their junction will not resist any appreciable moment and shall be assumed to be hinged, is a type of:

Ans
- ❌ 1. Rigid
- ✅ 2. Simple
- ❌ 3. Semi-rigid
- ❌ 4. Composite

Q.71 For the sludge digestion system to work effectively, the pH of the sludge should be between what range?

Ans

✗ 1. 8 – 10
✓ 2. 6.5 – 8
✗ 3. 10 – 12
✗ 4. 4 – 6

Status : Not Answered
Chosen Option : --

Q.72 In case of structural steel construction, the minimum distance between centre of fasteners shall not be less than m times the nominal diameter of the fastener, where m is:

Ans
✗ 1. 3.0
✗ 2. 2.0
✗ 3. 1.5
✓ 4. 2.5

Question ID : 9497309575
Status : Answered
Chosen Option : **3**

Q.73 In case of paints, the change characterised by an appreciable reduction in the initial flexibility, cohesion and adhesion of the film is termed as:

Ans
✓ 1. Brittleness
✗ 2. Viscosity loss
✗ 3. Fracture
✗ 4. Rupture

Question ID : 9497309555
Status : Answered
Chosen Option : **2**

Q.74 What is the point of contraflexure?

Ans
✓ 1.
It is a point where the bending moment changes sign.
✗ 2.
It is a point where the shear force changes sign.
✗ 3.
It is a point where the bending moment is maximum.
✗ 4.
It is a point where the bending moment is minimum.

Question ID : 9497309606
Status : Answered
Chosen Option : **2**

Q.75 The coefficient of thermal expansion of structural steel is taken as _____ $\times 10^{-6}$ per °C.

Ans
✓ 1. 12
✗ 2. 10
✗ 3. 20
✗ 4. 25

Question ID : 9497309557
Status : Answered
Chosen Option : **1**

Q.76 Why is mercury a preferred material over water in barometers?

Ans
✗ 1. Because of its heat conductivity
✓ 2.
Because it has higher density and lower vapour pressure
✗ 3. Because of better bulk modulus
✗ 4. Because of its colour

Question ID : 9497309580
Status : Answered
Chosen Option : **2**

Q.77 Which of the following is the most accurate method for determination of water content of a soil?

Ans
✗ 1. Calcium carbide method
✗ 2. Alcohol method
✔ 3. Oven-drying method
✗ 4. Nuclear density gauge

Question ID : **9497309578**
Status : **Answered**
Chosen Option : **3**

Q.78 Which of the following is NOT an advantage of indirect method of contouring?

Ans
✗ 1. Can be used for large projects
✗ 2. Quick
✔ 3. Very accurate
✗ 4. Very cheap

Question ID : **9497309572**
Status : **Answered**
Chosen Option : **3**

Q.79 For a given type of compaction, higher the compactive effort:

Ans
✗ 1.
higher is the dry density and higher is the optimum moisture content.
✔ 2.
higher is the dry density and lower is the optimum moisture content.
✗ 3.
lower is the dry density and lower is the optimum moisture content.
✗ 4.
lower is the dry density and higher is the optimum moisture content.

Question ID : **9497309604**
Status : **Answered**
Chosen Option : **1**

Q.80 Which of the following tests estimates the chemical effects of a deleterious action between cement and aggregate?

Ans
✗ 1. Micro Deval test
✗ 2. Aggregate impact value
✔ 3. Mortar bar test
✗ 4. Los Angeles abrasion value

Question ID : **9497309559**
Status : **Not Attempted and Marked For Review**
Chosen Option : --

Section : Reasoning

Q.1 If 'you are fine' is coded as 'ca, ba, da', 'he is fine' as 'le, da, xe', and 'they are fine' as 'ca, ty, da', then what is the code for 'he'?

Ans
✗ 1. xe
✗ 2. le
✗ 3. ty
✔ 4. It cannot be determined.

Question ID : **9497309636**
Status : **Answered**
Chosen Option : **4**

Q.2

Question ID : **9497309639**
Status : **Answered**
Chosen Option : **4**

Find the value of 'k' in the given table.

30	16	14
82	29	53
k	65	39

Ans ✗ 1. 118

✗ 2. 111

✗ 3. 122

✔ 4. 104

Q.3 P is the mother of S. U is the daughter of G. S is the sister of U. How is G related to P?

Ans ✗ 1. Father

✗ 2. Brother

✗ 3. Son

✔ 4. Husband

Question ID : 9497309632

Status : **Answered**

Chosen Option : **4**

Q.4 A statement followed by some conclusions is given below.

Statement: All tourist centers should be kept clean.
Conclusions: I. Places other than tourist centers need not be kept clean.
II. Foreign tourists prefer cleanliness.

Which of the given conclusions logically follow(s) from the given statement?

Ans ✗ 1. Only conclusion I follows.

✗ 2. Only conclusion II follows.

✔ 3. Neither I nor II follows.

✗ 4. Both I and II follow.

Question ID : 9497309641

Status : **Answered**

Chosen Option : **2**

Q.5 Read the following statements and answer the question given below.

Each of the 5 doctors - P, Q, R, S and T visit a hospital only one day from Monday to Friday in a week. P who visits on Monday exchanged his duty with Q who normally visits on Friday. R changed his duty with T, whose schedule is on Tuesday. S does not visit on Thursdays.

After exchange of duties, who visits the hospital on Thursday?

Ans ✗ 1. S

✔ 2. T

✗ 3. Q

✗ 4. R

Question ID : 9497309635

Status : **Answered**

Chosen Option : **2**

Q.6 K walks 8 km towards North and then 5 km towards South and then 4 km towards East. How far away and in which direction is K from the starting point?

Ans ✔ 1. 5 km, North East

✗ 2. 8 km, North West

✗ 3. 4 km, South East

✗ 4. 9 km, East

Question ID : 9497309638

Status : **Answered**

Chosen Option : **1**

Q.7 Find the related number to complete the analogy.

$20 : 30 : : 42 : ?$

Ans ✓ 1. 56

✗ 2. 58

✗ 3. 48

✗ 4. 54

Q.8 The difference between two positive integers is 527. If you divide the larger number by the smaller, the quotient = 3 and remainder = 27. What is the larger number?

Ans ✗ 1. 801

✗ 2. 725

✓ 3. 777

✗ 4. 627

Q.9 Based on the given analogy, determine the missing word.

Illusion : Mirage : : Authentic : ?

Ans ✗ 1. Incredible

✓ 2. Genuine

✗ 3. Spurious

✗ 4. Implausible

Q.10 In a club of 85 people, 40 and 33 people opted for yoga and gym classes respectively. 9 people did not opt for any class. Find the number of people who had opted for both classes.

Ans ✗ 1. 1

✓ 2. 3

✗ 3. 2

✗ 4. 4

Section : Quantitative Aptitude

Q.1 Which of the following is a quadratic equation?

Ans ✗ 1. $x(x + 1) + 8 = (x + 2)(x - 2)$

✗ 2. $m^2 + \dfrac{1}{m^2} - 2 = 0$

✓ 3. $3x^2 - 4x + 2 = 2x^2 - 2x + 4$

✗ 4. $p^3 - p^2 - 9 = 0$

Q.2 If 10 men can do a work in 8 days, then in how many days can 4 men finish twice the same work?

Ans ✗ 1. 25 days

✔ 2. 40 days

✘ 3. 30 days

✘ 4. 20 days

Q.3 The simple interest on a certain sum for 5 years works out to be 25% of the sum. Find the rate of interest per annum.

Ans

✘ 1. 6.25%

✘ 2. 5.75%

✘ 3. 6.0%

✔ 4. 5.0%

| Question ID : 9497309644 |
| Status : Answered |
| Chosen Option : 4 |

Q.4 The LCM of 2 numbers is 96. They are in the ratio 3 : 4. What is the difference between the numbers?

Ans

✔ 1. 8

✘ 2. 6

✘ 3. 9

✘ 4. 10

| Question ID : 9497309642 |
| Status : Answered |
| Chosen Option : 1 |

Q.5 P, Q से 100 मीटर पीछे है। दोनों एक ही समय $7\frac{1}{2}$ मीटर/सेकंड और $6\frac{2}{3}$ मीटर/सेकंड की चाल से दौड़ना शुरू करते हैं। P, Q से आगे निकलने में कितना समय लेगा?

Ans

✔ 1. 2 मिनट

✘ 2. 1 मिनट

✘ 3. 1 मिनट 30 सेकंड

✘ 4. 2 मिनट 45 सेकंड

| Question ID : 9497309647 |
| Status : Not Answered |
| Chosen Option : -- |

Q.6 The sum of three numbers P, Q and R is 85. If P : Q = 1 : 2 and Q : R = 3 : 4, find the value of R.

Ans

✔ 1. 40

✘ 2. 15

✘ 3. 45

✘ 4. 30

| Question ID : 9497309643 |
| Status : Not Answered |
| Chosen Option : -- |

Q.7 A 21 m high flag post is cut in such a way that its top touches the ground and makes an angle of 30° with the ground. At what height from the bottom is the post cut?

Ans

✘ 1. 12 m

✘ 2. 14 m

✔ 3. 7 m

✘ 4. 13 m

| Question ID : 9497309650 |
| Status : Not Answered |
| Chosen Option : -- |

Q.8 Which of the following series is not in arithmetic progression?

Ans

✘ 1. 4, 10, 16, …

✘ 2. 2, 4, 6, …

✘ 3. 3, 7, 11, …

| Question ID : 9497309649 |
| Status : Answered |
| Chosen Option : 4 |

✔ 4. 2, 4, 8, …

Q.9 An article was sold for ₹ 18,000 at a profit of 12.5%. Find the cost price.

Ans ✘ 1. ₹ 15,000

✘ 2. ₹ 15,500

✘ 3. ₹ 16,500

✔ 4. ₹ 16,000

Question ID : 9497309645
Status : **Answered**
Chosen Option : **4**

Q.10 The cost of Sugar M is ₹ 20 per kg and that of Sugar N is ₹ 25 per kg. In what ratio are M and N to be mixed to get a mixture costing ₹ 17.50 per kg?

Ans ✔ 1. 3 : 1

✘ 2. 3 : 2

✘ 3. 2 : 1

✘ 4. 2 : 3

Question ID : 9497309646
Status : **Not Attempted and Marked For Review**
Chosen Option : **--**

Section : **General Awareness**

Q.1 Water4Crops परियोजना के लिए भारत ने किसके साथ सहयोग स्थापित किया है?

Ans ✘ 1. ऑस्ट्रेलिया

✘ 2. थाईलैंड

✔ 3. यूरोपीय संघ

✘ 4. अफ्रीका

Question ID : 9497309652
Status : **Not Attempted and Marked For Review**
Chosen Option : **--**

Q.2 अशोक चक्र में कितनी तीलियां प्रदर्शित की गई हैं?

Ans ✔ 1. 24

✘ 2. 25

✘ 3. 26

✘ 4. 12

Question ID : 9497309655
Status : **Answered**
Chosen Option : **1**

Q.3 Which type of soil is predominantly found in the Deccan lava tract in India?

Ans ✘ 1. Alluvial Soils

✘ 2. Red Soil

✔ 3. Black Soil

✘ 4. Laterite Soil

Question ID : 9497309654
Status : **Not Answered**
Chosen Option : **--**

Q.4 भारत का संविधान कब लागू हुआ?

Ans ✔ 1. 26 जनवरी 1950

Question ID : 9497309656
Status : **Answered**
Chosen Option : **1**

✗ 2. 26 नवंबर 1949

✗ 3. 15 अगस्त 1950

✗ 4. 26 नवंबर 1950

Q.5 The pitch of the sound is higher when we approach a stationary source of sound with high speed. If we moved away from the source of sound, the pitch becomes lower. What is this called?

Ans
✗ 1. Redshift
✗ 2. Rayleigh fading
✔ 3. Doppler Effect
✗ 4. Echo

Question ID : 9497309659
Status : **Answered**
Chosen Option : **4**

Q.6 नायलॉन, रेयान तथा पॉलिस्टर किस प्रकार के पदार्थ हैं?

Ans
✗ 1. सभी वानस्पतिक फाइबर हैं।
✗ 2. सभी प्राकृतिक फाइबर हैं।
✔ 3. सभी सिंथेटिक फाइबर हैं।
✗ 4. सभी सेमी-सिंथेटिक फाइबर हैं।

Question ID : 9497309660
Status : **Answered**
Chosen Option : **3**

Q.7 Who was elected as the Chairman of the Paris-based International Chamber of Commerce (ICC) on 15 June 2016?

Ans
✗ 1. Arun Jaitley
✔ 2. Sunil Mittal
✗ 3. Raghuram Rajan
✗ 4. P. Chidambaram

Question ID : 9497309653
Status : **Answered**
Chosen Option : **1**

Q.8 What are Red Blood Corpuscles (RBC) in blood also known as?

Ans
✗ 1. Enzymes
✗ 2. Haemoglobin
✔ 3. Erythrocytes
✗ 4. Leukocytes

Question ID : 9497309661
Status : **Answered**
Chosen Option : **2**

Q.9 What was the home ground of the Chennai Super Kings team of the IPL cricket as of February 2018?

Ans
✗ 1. M. Chinnaswamy Stadium
✗ 2. Maharashtra Cricket Association Stadium
✔ 3. M. A. Chidambaram Stadium
✗ 4. Rajiv Gandhi Cricket Stadium

Question ID : 9497309658
Status : **Answered**
Chosen Option : **4**

Q.10 भारत के उच्चतम न्यायालय की सर्वोच्च रैंकिंग वाला न्यायाधीश कौन होता है?

Ans

Question ID : 9497309657
Status : **Answered**

✗ 1. महान्यायभिकर्ता (सॉलिसिटर जनरल)

✔ 2. भारत के मुख्य न्यायाधीश

✗ 3. राष्ट्रपति

✗ 4. महान्यायवादी (अटॉर्नी जनरल)

Section : English Language

Q.1 Select the meaning of the given phrase / idiom.

'Put by'

Ans ✗ 1. Keep it up

✗ 2. Set back

✗ 3. Abandon

✔ 4. Set aside

Question ID : **9497309669**

Status : **Not Attempted and Marked For Review**

Chosen Option : --

Q.2 From the given pairs of words, select the one which does not have the same meaning.

Ans ✔ 1. Formidable, Weak

✗ 2. Want, Lack

✗ 3. Random, Haphazard

✗ 4. Discretion, Prudence

Question ID : **9497309667**

Status : **Answered**

Chosen Option : **2**

Q.3 Rearrange the given sentences in the most appropriate sequence to form a meaningful paragraph.

K - But, they are not popular.
L - Traffic congestions and pollution have assumed menacing proportions.
M - Because people are averse to giving up privacy and comfort.
N - With a view to reducing the same, carpooling system and ride-sharing services have come into existence.

Ans ✗ 1. KMLN

✗ 2. MKNL

✔ 3. LNKM

✗ 4. NKML

Question ID : **9497309671**

Status : **Answered**

Chosen Option : **3**

Q.4 Democracy _____ fettered freedom only.

Ans ✗ 1. excludes

✗ 2. debars

✔ 3. envisages

✗ 4. disallows

Question ID : **9497309662**

Status : **Answered**

Chosen Option : **3**

Q.5 Change the verb into passive voice.

'Who was taking that?'

Question ID : **9497309670**

Status : **Answered**

Chosen Option : **3**

Ans
- ✗ 1. By whom was that taken?
- ✗ 2. That were being taken by whom?
- ✗ 3. That was taken by whom?
- ✔ 4. By whom was that being taken?

Q.6 From the given pairs of words, select the one which has the same meaning.

Ans
- ✗ 1. Despondent, Elated
- ✗ 2. Exterminate, Populate
- ✗ 3. Deprecate, Endorse
- ✔ 4. Abomination, Detestation

Question ID : **9497309666**
Status : **Not Answered**
Chosen Option : **--**

Q.7 Deciding not to take a decision is also a/an _____.

Ans
- ✗ 1. indecision
- ✗ 2. vacillation
- ✗ 3. disaster
- ✔ 4. decision

Question ID : **9497309663**
Status : **Answered**
Chosen Option : **2**

Q.8 Find the mis-spelt word.

Ans
- ✗ 1. Existence
- ✔ 2. Kindergarden
- ✗ 3. Principle
- ✗ 4. Calendar

Question ID : **9497309668**
Status : **Answered**
Chosen Option : **4**

Q.9 The following sentence contains an error. Find the part of the sentence which contains the error.

No sooner (1) / he arrived (2) / at the station, than (3) / he disappeared (4).

Ans
- ✗ 1. (3)
- ✗ 2. (1)
- ✗ 3. (4)
- ✔ 4. (2)

Question ID : **9497309664**
Status : **Not Answered**
Chosen Option : **--**

Q.10 Make a meaningful sentence from the following.
P : extra polite to
Q : spoil your records
S : they might
T : your superiors lest
U : you must be

The correct order is:

Question ID : **9497309665**
Status : **Answered**
Chosen Option : **4**

Ans ✗ 1. TSPUQ
✗ 2. PTUSQ
✗ 3. UTSPQ
✓ 4. UPTSQ