

## EdCIL - DDA JE (Civil & Elect) Exam

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| Participant ID:   |                    |
| Participant Name: |                    |
| Test Center Name: |                    |
| Test Date:        | 23/04/2018         |
| Test Time:        | 9:00 AM - 11:00 AM |
| Subject:          | JE CIVIL           |

### Section : Domain

**Q.1** The difference between the total head line and the hydraulic grade line represents the:

- Ans ☒ 1. Piezometric head  
☒ 2. Pressure head  
☒ 3. Elevation head  
☒ 4. Velocity head

Question ID : 9497309381

Status : Answered

Chosen Option : 4

**Q.2** In a uniform laminar flow through a conduit, the hydraulic gradient varies:

- Ans ☒ 1. inversely as the kinematic viscosity of the fluid  
☒ 2. as square of the diameter of the conduit  
☒ 3. as the velocity of flow  
☒ 4. inversely as the dynamic viscosity of the fluid

Question ID : 9497309382

Status : Answered

Chosen Option : 3

**Q.3** In Boussinesq's solution to the problem of stress distribution, all the following assumptions are made, except:

- Ans ☒ 1. Soil mass is semi-infinite.  
☒ 2. The elastic modulus of soil is constant.  
☒ 3. Soil is homogeneous.  
☒ 4. Soil is anisotropic.

Question ID : 9497309361

Status : Answered

Chosen Option : 4

**Q.4** The unit mass (kg/cum) of structural steel is:

- Ans ☒ 1. 8220  
☒ 2. 2500  
☒ 3. 7850  
☒ 4. 3500

Question ID : 9497309333

Status : Answered

Chosen Option : 3

**Q.5** Which of the following is false about gravity type filters used for water purification?

- Ans ☒ 1. Skilled supervision is essential

Question ID : 9497309373

Status : Answered

Chosen Option : 2

- ☒ 2. Operational cost is high
- ☒ 3. Depreciation of plant is high
- ☒ 4. Coagulation is not essential

Q.6 As per IS 456, lap splices shall not be used for bars with diameter (mm) greater than:

- Ans
- ☒ 1. 30
  - ☒ 2. 36
  - ☒ 3. 28
  - ☒ 4. 32

Question ID : 9497309327

Status : Answered

Chosen Option : 2

Q.7 The distance between centre of fasteners shall not be less than Y times the nominal diameter of the fastener, where Y is:

- Ans
- ☒ 1. 0.5
  - ☒ 2. 2.5
  - ☒ 3. 1
  - ☒ 4. 1.5

Question ID : 9497309336

Status : Answered

Chosen Option : 4

Q.8 The Poisson's ratio of a stable, isotropic, linear elastic material cannot be less than:

- Ans
- ☒ 1. 0.50
  - ☒ 2. 0.00
  - ☒ 3. -1.00
  - ☒ 4. -0.50

Question ID : 9497309367

Status : Answered

Chosen Option : 2

Q.9 A simply supported beam shall be deemed to be a deep beam when the ratio of effective span to overall depth, is less than:

- Ans
- ☒ 1. 2.0
  - ☒ 2. 2.5
  - ☒ 3. 1.3
  - ☒ 4. 1.5

Question ID : 9497309330

Status : Answered

Chosen Option : 1

Q.10 In a pipe flow, the minor loss due to sudden contraction is due to:

- Ans
- ☒ 1. Boundary friction
  - ☒ 2. Expansion of flow after sudden contraction
  - ☒ 3. Cavitation
  - ☒ 4. Flow Contraction

Question ID : 9497309383

Status : Answered

Chosen Option : 4

Q.11 While drawing Mohr's envelope, the relationship can be considered to be a straight line, if the angle of internal friction is assumed to be:

- Ans
- ☒ 1. Constant
  - ☒ 2. Right angle
  - ☒ 3. Acute angle
  - ☒ 4. Zero

Question ID : 9497309370

Status : Answered

Chosen Option : 4

**Q.12** It is known fact that the declination at any place keeps changing and does not remain constant from time to time. Which of the following is not a type of declination?

- Ans
- ☒ 1. Annual
  - ☒ 2. Secular
  - ☒ 3. Monthly
  - ☒ 4. Diurnal

Question ID : 9497309350  
Status : Answered  
Chosen Option : 2

**Q.13** The art of determining the relative positions distinctive features, on the surface of the earth or beneath the surface of earth, by means of measurement of distances, directions and elevations is called as:

- Ans
- ☒ 1. Astronomy
  - ☒ 2. Surveying
  - ☒ 3. Levelling
  - ☒ 4. Geodesy

Question ID : 9497309346  
Status : Answered  
Chosen Option : 2

**Q.14** Multiple displacement methods are used in structural analysis. Which of the following is not one of these?

- Ans
- ☒ 1. Equilibrium method
  - ☒ 2. Method of consistent deformations
  - ☒ 3. Moment distribution method
  - ☒ 4. Stiffness method

Question ID : 9497309386  
Status : Answered  
Chosen Option : 2

**Q.15** According to IS 800, the maximum effective slenderness ratio for a member carrying compressive loads resulting from dead loads and imposed loads is:

- Ans
- ☒ 1. 250
  - ☒ 2. 125
  - ☒ 3. 180
  - ☒ 4. 200

Question ID : 9497309334  
Status : Answered  
Chosen Option : 3

**Q.16** The slump of concrete used for hand placed pavement construction is recommended by the Indian Standard as:

- Ans
- ☒ 1. 25-75 mm
  - ☒ 2. 50-100 mm
  - ☒ 3. 25 mm
  - ☒ 4. 150 mm

Question ID : 9497309318  
Status : Answered  
Chosen Option : 1

**Q.17** The number of zones in India for classifying allowable moisture content for building timber as per the Indian standard are:

- Ans
- ☒ 1. Two
  - ☒ 2. Four
  - ☒ 3. Six
  - ☒ 4. Three

Question ID : 9497309340  
Status : Answered  
Chosen Option : 2

**Q.18** If the sensitivity of a clay is four and its undisturbed strength is 300 units, the disturbed strength of that clay will be:

- Ans
- ☒ 1. 750 units
  - ☒ 2. 250 units

Question ID : 9497309357  
Status : Answered  
Chosen Option : 3

- ✓ 3. 75 units  
✗ 4. 1000 units

Q.19 Softening of water is required for all but one of which of the following reasons?

Ans ✓ 1.

Make the cooked food tasty, soft and palatable

✗ 2. Reducing corrosion of pipes

✗ 3.

Reduce the rates of scale formation in the boilers

✗ 4. Helps reduce the fuel costs

Question ID : 9497309375

Status : Answered

Chosen Option : 4

Q.20 Spring analogy in soil mechanics is used for explaining which of the following phenomenon?

Ans ✗ 1. Compaction

✗ 2. Drainage

✗ 3. Elasticity

✓ 4. Consolidation

Question ID : 9497309362

Status : Answered

Chosen Option : 1

Q.21 According to the Indian Standard 12269, the initial setting time of ordinary portland cement should be not be less than:

Ans ✗ 1. 45 min

✗ 2. 600 min

✗ 3. 15 min

✓ 4. 30 min

Question ID : 9497309312

Status : Answered

Chosen Option : 4

Q.22 The flash point temperature (degree C) of paving grades of bitumen as per the Indian standard is:

Ans ✓ 1. 220

✗ 2. 200

✗ 3. 180

✗ 4. 160

Question ID : 9497309339

Status : Answered

Chosen Option : 3

Q.23 Concrete in the member represented by a core test shall be considered acceptable if the average equivalent cube strength of the cores is equal to at least q percent of the cube strength of the grade of concrete, where q (%) is:

Ans ✓ 1. 85

✗ 2. 95

✗ 3. 75

✗ 4. 65

Question ID : 9497309326

Status : Answered

Chosen Option : 2

Q.24 The minimum density (g/cc) of corrugated and semi-corrugated asbestos cement sheets considered acceptable for construction purposes by the Indian standard is:

Ans ✗ 1. 1.6

✗ 2. 1.8

✗ 3. 1.2

Question ID : 9497309341

Status : Not Answered

Chosen Option : --

✓ 4. 1.4

Q.25 According to Hazen's approximation of permeability of sands, if the effective diameter is 0.2 cm, then the permeability (cm/s) will be approximately equal to:

- Ans ✓ 1. 4  
✗ 2. 200  
✗ 3. 40  
✗ 4. 20

Question ID : 9497309359

Status : Answered

Chosen Option : 1

Q.26 In a submerged rectangular weir, an arrangement for aeration of nappe is essential for which of the following reasons?

- Ans ✓ 1.  
For having a constant head-discharge relation independent of time  
✗ 2. For preventing submergence of weir  
✗ 3. For maintaining water quality  
✗ 4.  
For having highest value of co-efficient of discharge

Question ID : 9497309380

Status : Answered

Chosen Option : 2

Q.27 During the purification of water, if chlorine is applied beyond the stage of break-point, then the water is called as:

- Ans ✗ 1. Double chlorinated  
✓ 2. Super-chlorinated  
✗ 3. Post chlorinated  
✗ 4. Pre-chlorinated

Question ID : 9497309374

Status : Answered

Chosen Option : 2

Q.28 Which of the following turbines have the least specific speed?

- Ans ✗ 1. Francis  
✗ 2. Pelton  
✗ 3. Kaplan  
✓ 4. Impulse

Question ID : 9497309385

Status : Answered

Chosen Option : 3

Q.29 A real fluid is one which \_\_\_\_\_.

- Ans ✗ 1. has constant viscosity and density  
✓ 2. has viscosity  
✗ 3. has zero shear stress  
✗ 4. is incompressible

Question ID : 9497309379

Status : Answered

Chosen Option : 1

Q.30 In reinforced concrete walls, the ratio of the effective height to thickness is limited by design code to:

- Ans ✗ 1. 25  
✓ 2. 30  
✗ 3. 20  
✗ 4. 15

Question ID : 9497309332

Status : Answered

Chosen Option : 2

**Q.31** In a certain project, the minimum specified cement content is 370 kg/cum. Due to a failure in the aggregate crushing and screening plant, the project manager is left with only 10 mm aggregate and sand. How will it affect the minimum cement content requirement?

**Ans** ☒ 1.

The cement content will have to be reduced by 40 kg/cum.

☒ 2.

The cement content will have to be increased by 40 kg/cum.

☒ 3.

The cement content will have to be reduced by 30 kg/cum.

☒ 4.

The cement content will have to be increased by 30 kg/cum.

Question ID : 9497309314

Status : Not Answered

Chosen Option : --

**Q.32** In a 10 m wide square shaped sedimentation tank, the flow rate is 100 cum/h, and if the depth of water is 2 m, the detention time (h) is:

**Ans** ☒ 1. 3

☒ 2. 1

☒ 3. 2

☒ 4. 4

Question ID : 9497309372

Status : Answered

Chosen Option : 3

**Q.33** According to Indian Standard 9103, the minimum water reduction achieved using a superplasticizing admixture is:

**Ans** ☒ 1. 20%

☒ 2. 40%

☒ 3. 30%

☒ 4. 10%

Question ID : 9497309320

Status : Answered

Chosen Option : 4

**Q.34** A 9 m long slab is cast on 1st of this month. According to the standard, on which day, can the props to the slab be removed?

**Ans** ☒ 1. 28th

☒ 2. 7th

☒ 3. 21st

☒ 4. 14th

Question ID : 9497309324

Status : Answered

Chosen Option : 3

**Q.35** In case of welds using lap joints, the minimum lap should not be less than four times the thickness of the thinner part joined or 1 run, whichever is more, where t (mm) is:

**Ans** ☒ 1. 10

☒ 2. 30

☒ 3. 40

☒ 4. 20

Question ID : 9497309337

Status : Answered

Chosen Option : 3

**Q.36** The minimum cement content (kg/cum) for a ship dock (underwater construction) with 40 mm aggregate is prescribed by the Indian Standard as:

**Ans** ☒ 1. 350

☒ 2. 250

☒ 3. 300

☒ 4. 400

Question ID : 9497309325

Status : Answered

Chosen Option : 3

Q.37 Which of the following is not a quality control test of cement?

- Ans
- ☒ 1. Soundness
  - ☒ 2. Slump
  - ☒ 3. Normal consistency
  - ☒ 4. Compressive strength

Question ID : 9497309322  
Status : Answered  
Chosen Option : 2

Q.38 For uniformly graded soil, the coefficient of uniformity is:

- Ans
- ☒ 1. One
  - ☒ 2. Seven
  - ☒ 3. Five
  - ☒ 4. Ten

Question ID : 9497309355  
Status : Answered  
Chosen Option : 2

Q.39 The maximum surface drying time (min) for class A type plastic emulsion paint as per the Indian standards is:

- Ans
- ☒ 1. 45
  - ☒ 2. 75
  - ☒ 3. 60
  - ☒ 4. 240

Question ID : 9497309342  
Status : Answered  
Chosen Option : 3

Q.40 Roller Compacted Concrete (RCC) can be used for which of the following constructions?

- Ans
- ☒ 1. Dams
  - ☒ 2. Wearing surface of roads
  - ☒ 3. Bridge deck slabs
  - ☒ 4. Canals

Question ID : 9497309323  
Status : Answered  
Chosen Option : 2

Q.41 The maximum intensity of loading that the foundation will safely carry without the risk of shear failure of soil irrespective of any settlement that may occur is called as:

- Ans
- ☒ 1. Allowable bearing capacity
  - ☒ 2. Safe bearing capacity
  - ☒ 3. Ultimate bearing capacity
  - ☒ 4. Net loading intensity

Question ID : 9497309364  
Status : Answered  
Chosen Option : 3

Q.42 When assessing the strength of a structure or structural member for the limit state of collapse, the values of partial safety factor for reinforcing steel, should be taken as:

- Ans
- ☒ 1. 1.50
  - ☒ 2. 1.00
  - ☒ 3. 1.15
  - ☒ 4. 1.25

Question ID : 9497309328  
Status : Answered  
Chosen Option : 3

Q.43 The effective length of prismatic steel member of length L in compression having both its ends restrained is:

- Ans
- ☒ 1. L

Question ID : 9497309335  
Status : Answered

- ☒ 2. 0.8L  
☒ 3. 1.25L  
☒ 4. 0.65L

Chosen Option : 4

Q.44 The maximum permissible limit of Chlorides (mg/l) in potable water, in absence of an alternate source is:

- Ans ☒ 1. 750  
☒ 2. 1000  
☒ 3. 250  
☒ 4. 500

Question ID : 9497309391

Status : Answered

Chosen Option : 2

Q.45 The imaginary level surface with reference to which vertical distances of the points are measured is called as:

- Ans ☒ 1. Mean sea level  
☒ 2. Horizontal plane  
☒ 3. Reduced level  
☒ 4. Datum surface

Question ID : 9497309352

Status : Answered

Chosen Option : 1

Q.46 The slenderness ratio has which of the following dimensions?

- Ans ☒ 1.  $m^{-1}$   
☒ 2. m  
☒ 3.  $m^2$   
☒ 4. dimensionless quantity

Question ID : 9497309389

Status : Answered

Chosen Option : 4

Q.47 According to the limit state theory, and as taken by IS 456, the maximum compressive strain in concrete in axial compression is taken as:

- Ans ☒ 1. 0.00125  
☒ 2. 0.002  
☒ 3. 0.001  
☒ 4. 0.0015

Question ID : 9497309329

Status : Answered

Chosen Option : 2

Q.48 In the standard Proctor test used for developing the moisture-density relationship of a soil, the weight of the hammer used is:

- Ans ☒ 1. 3 kg  
☒ 2. 4.5 kg  
☒ 3. 2.25 kg  
☒ 4. 2.5 kg

Question ID : 9497309363

Status : Answered

Chosen Option : 4

Q.49 The maximum pH value acceptable for potable water is:

- Ans ☒ 1. 7  
☒ 2. 6.5  
☒ 3. 8.5  
☒ 4. 8

Question ID : 9497309371

Status : Answered

Chosen Option : 4

Q.50 Which of the following methods is not used for measuring in-situ density of compacted soils?

- Ans
- ☒ 1. Nuclear density gauge method
  - ☒ 2. Water replacement method
  - ☒ 3. Sand replacement method
  - ☒ 4. Cassagrande's method

Question ID : 9497309356  
Status : Answered  
Chosen Option : 4

Q.51 What will be the Sludge Volume Index (SVI) if 100 ml of sludge collected in 30 mins on drying weighs 800 mg?

- Ans
- ☒ 1. 125
  - ☒ 2. 8
  - ☒ 3. 0.008
  - ☒ 4. 0.125

Question ID : 9497309378  
Status : Answered  
Chosen Option : 1

Q.52 Normally, the air that is left behind in the concrete after full compaction is achieved, is termed as:

- Ans
- ☒ 1. Incompressible air
  - ☒ 2. Entrained air
  - ☒ 3. Compactible air
  - ☒ 4. Entrapped air

Question ID : 9497309317  
Status : Answered  
Chosen Option : 4

Q.53 The area under the stress-strain curve for a material is usually used to estimate the \_\_\_\_\_.

- Ans
- ☒ 1. fatigue of the material
  - ☒ 2. energy required to cause a failure
  - ☒ 3. toughness of the material
  - ☒ 4. hardness of the material

Question ID : 9497309387  
Status : Answered  
Chosen Option : 1

Q.54 When corrosion of steel embedded in concrete takes place, the volume of rust is usually P times that of the original volume of steel, where P is:

- Ans
- ☒ 1. 4-9
  - ☒ 2. 0.5-1
  - ☒ 3. 1-1.5
  - ☒ 4. 2-4

Question ID : 9497309321  
Status : Answered  
Chosen Option : 4

Q.55 An RCC column will be considered as slender when the ratio of effective length (in depth direction) to depth ratio is:

- Ans
- ☒ 1. 12 and effective length (in width direction) to width ratio is also 12.
  - ☒ 2. 6 and effective length (in width direction) to width ratio is 12.
  - ☒ 3. 6 and effective length (in width direction) to width ratio is also 6.
  - ☒ 4. 10 and effective length (in width direction) to width ratio is also 10.

Question ID : 9497309369  
Status : Answered  
Chosen Option : 1

Q.56 On a contour map, curves that are more or less equally spaced, depict:

- Ans
- ☒ 1. uniform slope
  - ☐ 2. a valley
  - ☐ 3. steep slope
  - ☐ 4. a vertical cliff

Question ID : 9497309353  
Status : Answered  
Chosen Option : 1

Q.57 While calculating bearing capacity for a foundation, the water table is likely to permanently remain at a level of 20 m for a square foundation of side 5 m, then the correction factor for water table will be taken as:

- Ans
- ☒ 1. 1.00
  - ☐ 2. 0.5
  - ☐ 3. 0.25
  - ☐ 4. 0.75

Question ID : 9497309365  
Status : Answered  
Chosen Option : 1

Q.58 The water formations that are impermeable and contain water, but are not capable of transmitting a significant quantity are called as:

- Ans
- ☒ 1. Aquiclude
  - ☐ 2. Perched Aquifer
  - ☐ 3. Aquifer
  - ☐ 4. Confined Aquifer

Question ID : 9497309360  
Status : Answered  
Chosen Option : 1

Q.59 Slate is a type of:

- Ans
- ☒ 1. Metamorphic rock
  - ☐ 2. Igneous rock
  - ☐ 3. Plithic rock
  - ☐ 4. Sedimentary rock

Question ID : 9497309344  
Status : Answered  
Chosen Option : 1

Q.60 A potential degradation of concrete can happen, if the Alkalies present in the cement react with:

- Ans
- ☐ 1. Polypropylene fibres
  - ☐ 2. Potable water
  - ☒ 3. Silica present in aggregates
  - ☐ 4. Naphthalene present in the chemical admixture

Question ID : 9497309313  
Status : Answered  
Chosen Option : 3

Q.61 The abrasion resistance of mineral aggregates used for concrete making is usually measured using which of the following test method?

- Ans
- ☐ 1. Le Chatelier
  - ☒ 2. Los Angeles
  - ☐ 3. Izod
  - ☐ 4. Micro-Deval

Question ID : 9497309319  
Status : Answered  
Chosen Option : 2

**Q.62** The horizontal angle between the true meridian and the survey line measured in a clockwise direction is called as:

- Ans
- ☒ 1. Azimuth
  - ☒ 2. True bearing
  - ☒ 3. Grid Meridian
  - ☒ 4. Arbitrary Meridian

Question ID : 9497309349  
Status : Answered  
Chosen Option : 1

**Q.63** Which of the following methods of layout of water distribution pipes is suitable for well-planned roads and streets?

- Ans
- ☒ 1. Grid iron
  - ☒ 2. Radial
  - ☒ 3. Circular
  - ☒ 4. Dead end

Question ID : 9497309376  
Status : Answered  
Chosen Option : 1

**Q.64** Which of the following exposure conditions will a structural steel element be classified when exposed to corrosive fumes?

- Ans
- ☒ 1. Extreme
  - ☒ 2. Severe
  - ☒ 3. Moderate
  - ☒ 4. Very Severe

Question ID : 9497309338  
Status : Not Answered  
Chosen Option : --

**Q.65** Which of the following is not a temporary adjustment to a compass used for land surveying?

- Ans
- ☒ 1. Focusing the prism
  - ☒ 2. Making the pivot exactly vertically over the ground station mark
  - ☒ 3. Center of the pivot coincides with geometrical center of graduated ring
  - ☒ 4. Levelling

Question ID : 9497309348  
Status : Answered  
Chosen Option : 3

**Q.66** In a non-cellular, non-ribbed, flat slab, the spacing of reinforcing bars shall be limited to a maximum of m times the thickness of the slab, where m is:

- Ans
- ☒ 1. 2.50
  - ☒ 2. 2.00
  - ☒ 3. 1.50
  - ☒ 4. 1.00

Question ID : 9497309331  
Status : Answered  
Chosen Option : 2

**Q.67** If a surveying drawing is prepared at a scale of 1 cm = 4 m, then what will be the fractional scale?

- Ans
- ☒ 1. 1 : 0.025
  - ☒ 2. 1 : 40
  - ☒ 3. 1 : 0.25
  - ☒ 4. 1 : 400

Question ID : 9497309347  
Status : Answered  
Chosen Option : 4

**Q.68** In a standard California bearing ratio test (sample height is 125 mm), the difference between the initial and final dial gauge readings is found to be 0.125 mm. What is the expansion ratio of this soil?

- Ans
- ☒ 1. 10

Question ID : 9497309366  
Status : Answered

- ☐ 2. 100  
☒ 3. 0.1  
☐ 4. 1

Chosen Option : 2

Q.69 Rank the following for usual ranges of hydraulic conductivity in descending order of values:

- (a) Vesicular Basalt  
(b) Sandstone  
(c) Limestone  
(d) Fractured Metamorphic rocks

Question ID : 9497309345

Status : Answered

Chosen Option : 3

- Ans ☐ 1. a-b-c-d  
☐ 2. d-a-b-c  
☒ 3. a-d-c-b  
☐ 4. b-a-c-d

Q.70 A propped cantilever beam of span  $L$  when loaded with a uniformly distributed load of intensity  $p$  will have a bending moment  $M$  at the fixed end, where  $M$  is:

- Ans ☐ 1.  $\frac{wL^2}{12}$   
☐ 2.  $\frac{wL^2}{16}$   
☐ 3.  $\frac{wL^2}{24}$   
☒ 4.  $\frac{wL^2}{8}$

Question ID : 9497309388

Status : Answered

Chosen Option : 4

Q.71 Which of the following is not a method of balancing consecutive coordinates of a theodolite traverse?

- Ans ☐ 1. Axis method  
☐ 2. Bowditch's method  
☒ 3. Simpson's method  
☐ 4. Transit rule method

Question ID : 9497309354

Status : Answered

Chosen Option : 3

Q.72 A rectangular bar is subjected to torsion; what will be the location of the maximum shear stress?

- Ans ☐ 1. at the center  
☐ 2. at the corner  
☐ 3. along the diagonal  
☒ 4. middle of the longer side

Question ID : 9497309390

Status : Answered

Chosen Option : 1

Q.73 Which of the following methods is suitable for plane table surveying a township where clearings are rare and distant views are seldom available?

- Ans ☐ 1. Resection method  
☐ 2. Radiation method  
☐ 3. Intersection method

Question ID : 9497309351

Status : Answered

Chosen Option : 1

✓ 4. Traversing method

Q.74 The average net mass of cement per bag in India is:

- Ans
- ✗ 1. 25 kg
  - ✗ 2. 100 kg
  - ✗ 3. 35 kg
  - ✓ 4. 50 kg

Question ID : 9497309316  
Status : Answered  
Chosen Option : 4

Q.75 As the water to cement ratio increases, the flexural strength of concrete:

- Ans
- ✗ 1. Does not depend at all on water to cement ratio
  - ✓ 2. Decreases
  - ✗ 3. Remains unaffected
  - ✗ 4. Increases

Question ID : 9497309315  
Status : Answered  
Chosen Option : 2

Q.76 Observations on a hydraulic jump were made and it was observed that the sequent depth ratio is 5. This jump can be classified as:

- Ans
- ✗ 1. Strong
  - ✗ 2. Steady
  - ✓ 3. Oscillating
  - ✗ 4. Weak

Question ID : 9497309384  
Status : Answered  
Chosen Option : 2

Q.77 As per the terminology used for timber, the angle between the face of the cutter and the line joining the cutting edge to the centre of the block is called as:

- Ans
- ✓ 1. Cutting angle
  - ✗ 2. Fibril angle
  - ✗ 3. Hook
  - ✗ 4. Bastard grain

Question ID : 9497309343  
Status : Not Answered  
Chosen Option : --

Q.78 A soil was tested in a National research center and its liquid limit was found to be 15% and plasticity index was found to be 3%. According to Casagrande's plasticity chart, which soil type is this?

- Ans
- ✓ 1. ML
  - ✗ 2. CI
  - ✗ 3. CL
  - ✗ 4. MH

Question ID : 9497309358  
Status : Answered  
Chosen Option : 3

Q.79 If the BOD in the beginning and in the end of test are respectively 13 and 8 ppm and if the dilution factor is 100, then the 5-day BOD (ppm) will be:

- Ans
- ✗ 1. 800
  - ✗ 2. 1300
  - ✓ 3. 500

Question ID : 9497309377  
Status : Answered  
Chosen Option : 3

☒ 4. 200

Q.80 The estimated value of elastic modulus (GPa) of concrete of M65 grade as per IS 456 would be approximately:

- Ans ☒ 1. 35  
☒ 2. 30  
☒ 3. 40  
☒ 4. 25

Question ID : 9497309368

Status : Answered

Chosen Option : 3

Section : Reasoning

Q.1 सादृश्य को पूरा करें।

पोर्ट लुई : ? :: थिम्पू : भूटान

- Ans ☒ 1. अंडमान एवं निकोबार  
☒ 2. पनामा  
☒ 3. मॉरीशस  
☒ 4. मालदीव

Question ID : 9497309394

Status : Answered

Chosen Option : 3

Q.2 एक कक्षा में  $\frac{1}{4}$  छात्र हैं। कक्षा को दो समूहों  $\frac{1}{8}$  और  $\frac{1}{8}$  में बांटा गया है। दोनों समूहों में  $\frac{1}{4}$  छात्र उभयनिष्ठ हैं तथा जो किसी भी समूह से संबंधित नहीं उन छात्रों की संख्या  $p$  है। छात्रों की कुल संख्या बताएं।

- Ans ☒ 1.  $a + b + x - p$   
☒ 2.  $a + b + x + p$   
☒ 3.  $a + b - x + p$   
☒ 4.  $a + b - x - p$

Question ID : 9497309400

Status : Answered

Chosen Option : 3

Q.3 Find the related number to complete the analogy.

5 : 18 :: 8 : ?

- Ans ☒ 1. 25  
☒ 2. 19  
☒ 3. 21  
☒ 4. 27

Question ID : 9497309393

Status : Answered

Chosen Option : 3

Q.4 एक कथन तथा उसके कुछ निष्कर्ष नीचे दिए गए हैं।

कथन: मूल वेतन मानवाधिकार में शामिल होना चाहिए।

निष्कर्ष: I. इसका अर्थ है कि सरकार को कुछ न करने वालों को खैरान बांटनी चाहिए।

II. मूल वेतन सुनिश्चित करना एक सामाजिक सुरक्षा उपाय है।

निम्नलिखित निष्कर्षों में से कौन सा/से निष्कर्ष तार्किक रूप से दिए गए कथन का पालन करता/करते हैं?

- Ans ☒ 1. केवल निष्कर्ष I पालन करता है।  
☒ 2. I और II दोनों पालन करते हैं।

Question ID : 9497309401

Status : Answered

Chosen Option : 4

- ✓ 3. केवल निष्कर्ष ॥ पालन करता है।
- ✗ 4. न तो । और न ॥ पालन करता है।

Q.5 एक विशेष कूट भाषा में 'books are many' को 'ym bs ae' लिखा जाता है। 'many more students' को 'st em ym' लिखा जाता है। 'students need books' को 'bs nd st' लिखा जाता है। कौन सा कूट शब्द 'are' को व्यक्त करता है?

- Ans ✗ 1. st
- ✗ 2. nd
- ✗ 3. em
- ✓ 4. ae

Question ID : 9497309397  
Status : Answered  
Chosen Option : 4

Q.6 दक्षिण की ओर 4 किमी चलने के बाद, P बाईं ओर मुड़ा और 4 किमी चला। फिर वह अपनी बाईं ओर मुड़ा और 4 किमी चला। फिर, वह अपने दाईं ओर मुड़ा और 5 किमी चला। वह अब अपने आरंभ बिंदु से किस दिशा में कितनी दूरी पर है?

- Ans ✗ 1. 8 किमी, पश्चिम
- ✗ 2. 4 किमी, उत्तर
- ✗ 3. 7 किमी, दक्षिण
- ✓ 4. 9 किमी, पूर्व

Question ID : 9497309398  
Status : Answered  
Chosen Option : 4

Q.7 Read the given statements and answer the question below.

N is shorter than L, but taller than O. M is taller than N, but shorter than L. L is not as tall as K.

Based on the height, who is in the middle?

- Ans ✗ 1. L
- ✓ 2. M
- ✗ 3. O
- ✗ 4. N

Question ID : 9497309395  
Status : Answered  
Chosen Option : 2

Q.8 The difference between the ages of P and Q was 19 years, when Q's age was 53. If C is elder to Q by 4 years, what will be the difference between the ages of P and C when C attains 60 years?

- Ans ✗ 1. 24 years
- ✓ 2. 23 years
- ✗ 3. 26 years
- ✗ 4. 19 years

Question ID : 9497309396  
Status : Answered  
Chosen Option : 2

Q.9 राहुल की ओर इशारा करते हुए, स्मृति ने कहा कि वह मेरी मां के इकलौते बच्चे का बेटा है। राहुल से स्मृति का क्या संबंध है?

- Ans ✓ 1. बेटा
- ✗ 2. भतीजा
- ✗ 3. भाई
- ✗ 4. पोता

Question ID : 9497309392  
Status : Answered  
Chosen Option : 2

Q.10

Question ID : 9497309399

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

|   |    |    |
|---|----|----|
| 2 | 3  | 4  |
| 4 | 9  | 16 |
| 6 | 12 | k  |

- Ans
- ☒ 1. 22
  - ☒ 2. 21
  - ☒ 3. 23
  - ☒ 4. 20

Status : Answered  
Chosen Option : 4

Section : Quantitative Aptitude

Q.1 A car covers a certain distance at a speed of 100 kmph in 6 hr. To cover the same distance in  $3\frac{1}{2}$  hours, at what speed does it have to travel?

- Ans
- ☒ 1. 170 kmph
  - ☒ 2. 160 kmph
  - ☒ 3. 180 kmph
  - ☒ 4. 150 kmph

Question ID : 9497309407  
Status : Answered  
Chosen Option : 3

Q.2 एक दीवार के सहारे तिरछी छड़ी हुई सीढ़ी का उन्मुख कोण  $60^\circ$  है और इसका निचला सिरा दीवार से 3.7 मीटर की दूरी पर है। सीढ़ी की लंबाई ज्ञात कीजिए।

- Ans
- ☒ 1. 7.4 मीटर
  - ☒ 2. 4.8 मीटर
  - ☒ 3. 3.7 मीटर
  - ☒ 4. 6.5 मीटर

Question ID : 9497309410  
Status : Answered  
Chosen Option : 1

Q.3 Find the HCF of  $\frac{3}{4}$ ,  $\frac{5}{6}$ , and  $\frac{7}{8}$ .

- Ans
- ☒ 1.  $\frac{1}{48}$
  - ☒ 2.  $\frac{1}{12}$
  - ☒ 3.  $\frac{1}{16}$
  - ☒ 4.  $\frac{1}{24}$

Question ID : 9497309402  
Status : Answered  
Chosen Option : 4

Q.4 An amount of ₹ 6,000 is shared by P, Q and R in the ratio 5 : 4 : 3 respectively. How much more will P get as compared to R?

- Ans
- ☒ 1. ₹ 500
  - ☒ 2. ₹ 1,000

Question ID : 9497309403  
Status : Answered  
Chosen Option : 2

☒ 3. ₹ 1,500

☒ 4. ₹ 750

Q.5 If the roots of the quadratic equation  $x^2 + mx + n = 0$  are  $-1$  and  $-5$ , find the values of  $m$  and  $n$ .

Ans ☒ 1.  $m = -5, n = 6$

☒ 2.  $m = 6, n = 5$

☒ 3.  $m = 5, n = 6$

☒ 4.  $m = -6, n = 5$

Question ID : 9497309411

Status : Answered

Chosen Option : 4

Q.6 P एक काम को 12 घंटों में कर सकता है। Q इसी काम को P द्वारा किये जाने वाले समय से आधे समय में कर सकता है। यदि वे एक साथ मिलकर इसी काम का दोगुना काम करते हैं तो उसे समाप्त करने में कितना समय लगेगा?

Ans ☒ 1. 5 घंटे

☒ 2. 7 घंटे

☒ 3. 8 घंटे

☒ 4. 4 घंटे

Question ID : 9497309408

Status : Answered

Chosen Option : 3

Q.7 A TV and an air conditioner were sold for ₹ 9,600 each. The TV was sold at a loss of 20% and the AC was sold at a profit of 20%. What is the net result?

Ans ☒ 1. Loss of ₹ 800

☒ 2. Gain of ₹ 800

☒ 3. No loss or gain

☒ 4. Gain of ₹ 1,600

Question ID : 9497309405

Status : Answered

Chosen Option : 1

Q.8 एक आदमी ने ₹ 1,000 और ₹ 1,500 की दो पदार्थोंों आधार से जिन्हें समान ब्याज की दर पर क्रमशः 3 वर्ष और 4 वर्ष में वापस लौटाया जाता है। यदि कुल देय ब्याज ₹ 1,350 है, तो ब्याज की वार्षिक दर ज्ञात कीजिए।

Ans ☒ 1. 8%

☒ 2. 15%

☒ 3. 10%

☒ 4. 12%

Question ID : 9497309404

Status : Answered

Chosen Option : 2

Q.9 Find the position of number 70 in the series.

2, 6, 10, ...

Ans ☒ 1. 18

☒ 2. 17

☒ 3. 16

☒ 4. 19

Question ID : 9497309409

Status : Answered

Chosen Option : 1

Q.10 पूर्व घास का मूल्य ₹ 40 प्रति किलो और बंद घास का मूल्य ₹ 50 प्रति किलो है। यदि इन्हें 3 : 2 के अनुपात में मिश्रित किया जाता है तो मिश्रण का प्रति किलो मूल्य क्या होगा?

Ans

Question ID : 9497309406

Status : Answered

- ✗ 1. ₹ 43 प्रति किलो
- ✗ 2. ₹ 46 प्रति किलो
- ✗ 3. ₹ 45 प्रति किलो
- ✓ 4. ₹ 44 प्रति किलो

Chosen Option : 4

Section : General Awareness

Q.1 किस भारतीय राज्य में गंगा नदी पश्चिमी हिमालय से निकलती है?

Question ID : 9497309414

Ans ✗ 1. हरियाणा

Status : Answered

✓ 2. उत्तराखंड

Chosen Option : 2

✗ 3. उत्तर प्रदेश

✗ 4. हिमाचल प्रदेश

Q.2 भारतीय संसद के राज्यों के परिषद को क्या कहा जाता है?

Question ID : 9497309418

Ans ✗ 1. लोक अदालत

Status : Answered

✗ 2. लोकसभा

Chosen Option : 4

✗ 3. उच्चतम न्यायालय

✓ 4. राज्यसभा

Q.3 सेब में मुख्यतः किस प्रकार के अम्ल (एसिड) पाए जाते हैं?

Question ID : 9497309420

Ans ✗ 1. टार्टरिक अम्ल

Status : Answered

✓ 2. मैलिक अम्ल

Chosen Option : 4

✗ 3. साइट्रिक अम्ल

✗ 4. एस्कोर्बिक अम्ल

Q.4 इनमें से किसे "प्रकाश वर्ष" से मापा जाता है?

Question ID : 9497309419

Ans ✗ 1. गहराई

Status : Answered

✗ 2. समय

Chosen Option : 4

✗ 3. ध्वनि

✓ 4. दूरी

Q.5 अमेरिकी ओलंपिक एवं पैरालिम्पिक मुक्केबाज, मुहम्मद अली को 20वीं सदी की सर्वोच्च महत्वपूर्ण एवं मशहूर खेल हस्ती के रूप में जाना जाता था। उनका जन्म नाम क्या था?

Question ID : 9497309417

Ans ✗ 1. वॉकर स्मिथ जूनियर

Status : Answered

Chosen Option : 2

- ☒ 2. एडसन एरंटेस डो नैसीमेंटो
- ☒ 3. कैसियस मार्सेलस क्ले, जूनियर
- ☒ 4. रॉकी मर्सियानो

Q.6 किस मुगल बादशाह ने 1617 में ब्रिटिश ईस्ट इंडिया कंपनी को भारत में व्यापार करने की अनुमति दी?

- Ans ☒ 1. शाहजहाँ
- ☒ 2. जहांगीर
- ☒ 3. अकबर
- ☒ 4. औरंगजेब

Question ID : 9497309415  
Status : Answered  
Chosen Option : 2

Q.7 जून 2016 में, महाराष्ट्र सरकार ने सड़कों का डिमोल करने के लिए तारकोल के साथ क्या मिलाने का फैसला किया?

- Ans ☒ 1. इलेक्ट्रॉनिक अपशिष्ट
- ☒ 2. कीचड़
- ☒ 3. प्लास्टिक अपशिष्ट
- ☒ 4. जेल

Question ID : 9497309412  
Status : Answered  
Chosen Option : 3

Q.8 मायोपिया निम्नलिखित में से किससे संबंधित है?

- Ans ☒ 1. नाक
- ☒ 2. आंख
- ☒ 3. कान
- ☒ 4. त्वचा

Question ID : 9497309421  
Status : Answered  
Chosen Option : 2

Q.9 To which of the following dynasties did Emperor Ashoka belong?

- Ans ☒ 1. Pala
- ☒ 2. Maurya
- ☒ 3. Gupta
- ☒ 4. Chalukya

Question ID : 9497309416  
Status : Answered  
Chosen Option : 2

Q.10 Who won the 2017 Roland Garros Men's Singles tournament?

- Ans ☒ 1. Rafael Nadal
- ☒ 2. Andy Murray
- ☒ 3. Stanislas Wawrinka
- ☒ 4. Roger Federer

Question ID : 9497309413  
Status : Answered  
Chosen Option : 4

Section : English Language

Q.1 From the given pairs of words, select the one which does not have the same meaning.

- Ans  1. Frugality, Prudence  
 2. Habitual, Infrequent  
 3. Embarrass, Confound  
 4. Propitious, Favourable

Question ID : 9497309427

Status : Answered

Chosen Option : 2

Q.2 John was \_\_\_\_\_ to do it against his conscience.

- Ans  1. against  
 2. compelled  
 3. inevitable  
 4. refused

Question ID : 9497309422

Status : Not Answered

Chosen Option : --

Q.3 Make a meaningful sentence from the following.

Q : the most interesting

S : it was

R : I had ever read

P : book that

The correct order is:

- Ans  1. PQRS  
 2. SQPR  
 3. SRQP  
 4. QSRP

Question ID : 9497309425

Status : Answered

Chosen Option : 2

Q.4 Rearrange the given sentences in the most appropriate sequence to form a meaningful paragraph.

K - Farmers will have to come around as experts do not have much stakes.  
L - Farmers say that good rains will solve ground water problem.  
M - Thus, there is no meeting point in this regard between the sides so far.  
N - But, experts say that only sensible farm practices will solve the problem.

- Ans  1. LNMK  
 2. KNLM  
 3. NLMK  
 4. KLMN

Question ID : 9497309431

Status : Answered

Chosen Option : 2

Q.5 The following sentence contains an error. Find the part of the sentence which contains the error.

I said that (1) / Gupta was (2) / taller than (3) / I (4).

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

Question ID : 9497309424

Status : Answered

Chosen Option : 2

Q.6 If you fail to produce result, you have to go \_\_\_\_\_ the process all over again.

- Ans
- ☒ 1. out
  - ☒ 2. on
  - ☒ 3. up
  - ☒ 4. through

Question ID : 9497309423  
Status : Answered  
Chosen Option : 4

Q.7 From the given pairs of words, select the one which has the same meaning.

- Ans
- ☒ 1. General, Casual
  - ☒ 2. Futile, Fruitful
  - ☒ 3. Help, Thwart
  - ☒ 4. Humble, Unassuming

Question ID : 9497309426  
Status : Answered  
Chosen Option : 1

Q.8 Find the mis-spelt word.

- Ans
- ☒ 1. Voluntary
  - ☒ 2. Veledictory
  - ☒ 3. Woe
  - ☒ 4. Stationary

Question ID : 9497309428  
Status : Answered  
Chosen Option : 2

Q.9 Change the verb into passive voice.

‘Read the text and answer the questions.’

- Ans
- ☒ 1. The text has been read and questions have been answered.
  - ☒ 2. The text is read and questions will be answered.
  - ☒ 3. Let the text be read and questions answered.
  - ☒ 4. The text was read and questions were answered.

Question ID : 9497309430  
Status : Answered  
Chosen Option : 4

Q.10 Select the meaning of the given phrase / idiom.

‘To call in question’

- Ans
- ☒ 1. Express no doubt
  - ☒ 2. Call one by one
  - ☒ 3. Challenge
  - ☒ 4. List of questions

Question ID : 9497309429  
Status : Answered  
Chosen Option : 3