

# Gujarat Energy Transmission Corporation Limited

## Notations :

- 1.Options shown in green color and with ✓ icon are correct.
- 2.Options shown in red color and with ✗ icon are incorrect.

<b>Question Paper Name:</b>	VS Jr Engineer Civil Actual Set 1
<b>Subject Name:</b>	VS Jr Engineer Civil
<b>Creation Date:</b>	2015-07-22 15:55:14.0
<b>Cut Off:</b>	0
<b>Duration:</b>	60
<b>Number of Questions:</b>	100
<b>Total Marks:</b>	100.0

## Civil

Group Number :	1
Group Id :	1
Group Maximum Duration :	0
Group Minimum Duration :	60
Revisit allowed for view? :	No
Revisit allowed for edit? :	No
Break time:	0
Group Marks:	100.0

## VS Jr. Engineer- Civil

Section Id :	1
Section Number :	1
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	100
Number of Questions to be attempted:	100
Section Marks:	100.0

Sub-Section Number:	1
Sub-Section Id:	1
Question Shuffling Allowed :	Yes

**Question Number : 1 Question Id : 1 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0**

The maximum value of Poisson's ratio for an elastic material is

## Options :

1. ✗ 0.25
2. ✓ 0.5
3. ✗ 0.75

4. ✘ 0.1

Question Number : 2 Question Id : 2 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

$U_1$  and  $U_2$  are the strain energies stored in a prismatic bar due to tensile forces  $P_1$  and  $P_2$  respectively. The strain energy stored in the same bar due to combined action of  $P_1$  and  $P_2$  will be

Options :

1. ✘  $U=U_1+U_2$
2. ✘  $U=U_1 \times U_2$
3. ✘  $U < U_1+U_2$
4. ✔  $U > U_1+U_2$

Question Number : 3 Question Id : 3 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Creep strain is

Options :

1. ✔ caused due to dead load only
2. ✘ caused due to live load only
3. ✘ caused due to cyclic load only
4. ✘ independent of load

Question Number : 4 Question Id : 4 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The following statements are related to bending of beams. Find the FALSE Statement:

- (I). The slope of bending moment diagram is equal to shear force.
- (II). The slope of shear force diagram is equal to the load intensity.
- (III) The slope of the curvature is equal to the flexural rotation.
- (IV) The second derivative of curvature is equal to the curvature.

Options :

1. ✘ (I)
2. ✘ (II)
3. ✔ (III)
4. ✘ (IV)

Question Number : 5 Question Id : 5 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The major and minor principal stresses at a point are 4 MPa and -4 MPa respectively. The maximum shear stress at that point in MPa is

Options :

1. ✘ zero
2. ✔ 4
3. ✘ 8
4. ✘ 16

Question Number : 6 Question Id : 6 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

In a real beam, at one end, the boundary condition of zero slope and zero vertical displacement exists. In corresponding conjugate beam, the boundary conditions at this end will be

Options :

1. ✔ shear force = 0 and bending moment = 0

- ✘ slope=0 and vertical displacement = 0
- ✘ slope=0 and bending moment = 0
- ✘ shear force = 0 and vertical displacement = 0

Question Number : 7 Question Id : 7 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The propped cantilever beam of length  $L$ ,  $m$  carries a uniformly distributed load  $w$ ,  $N/m$ . The reaction at the propped end is

Options :

- ✘  $5wL/8$
- ✔  $3wL/8$
- ✘  $wL/2$
- ✘  $3wL/4$

Question Number : 8 Question Id : 8 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

In a column section, shear centre is a point through which, if the resultant passes, the section will not be subjected to any

Options :

- ✘ bending
- ✘ tension
- ✘ compression
- ✔ torsion

Question Number : 9 Question Id : 9 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The axial load carrying capacity of a long column of a given material with cross section area,  $A$ , and the length,  $L$ , is governed by other parameters

Options :

- ✘ strength of its material only
- ✘ its flexural rigidity only
- ✘ its slenderness ratio only
- ✔ both flexural rigidity and slenderness ratio

Question Number : 10 Question Id : 10 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The characteristic strength of a concrete is defined as that compressive strength below which not more than

Options :

- ✘ 10% of results fail
- ✔ 5% of results fail
- ✘ 3% of results fail
- ✘ 1% of results fail

Question Number : 11 Question Id : 11 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The partial factor of safety for the concrete as per IS 456:2000 is

Options :

- ✔ 1.5
- ✘ 1.15

3. ✘ 1.25

4. ✘ 0.87

**Question Number : 12 Question Id : 12 Question Type : MCQ Option Shuffling : No**

**Correct : 1.0 Wrong : 0.0**

Consider the following statements:

(1) The compressive strength of concrete decreases with increase in water-cement ratio of the concrete mix.

(2) Water is added in the concrete mix for hydration of cement and workability.

(3) Creep and shrinkage of concrete are independent of water-cement ratio of concrete mix.

The TRUE statements are

**Options :**

1. ✔ (1) and (2)

2. ✘ (1), (2) and (3)

3. ✘ (2) and (3)

4. ✘ only (2)

**Question Number : 13 Question Id : 13 Question Type : MCQ Option Shuffling : No**

**Correct : 1.0 Wrong : 0.0**

A reinforced concrete structure has to be constructed along a sea coast. The minimum grade of concrete to be used as per IS 456:2000 is

**Options :**

1. ✘ M15

2. ✘ M20

3. ✘ M25

4. ✔ M30

**Question Number : 14 Question Id : 14 Question Type : MCQ Option Shuffling : No**

**Correct : 1.0 Wrong : 0.0**

While designing, for a steel column of Fe250 grade, a base plate resting on a concrete pedestal of M20 grade, the bearing strength of concrete (in  $N/mm^2$ ) in limit state method of design as per IS 456:2000 is

**Options :**

1. ✘ 4.5

2. ✘ 5

3. ✔ 9

4. ✘ 20

**Question Number : 15 Question Id : 15 Question Type : MCQ Option Shuffling : No**

**Correct : 1.0 Wrong : 0.0**

The flexural tensile strength of M25 grade concrete in  $N/mm^2$ , as per IS 456:2000 is

**Options :**

1. ✔ 3.5

2. ✘ 5

3. ✘ 7

4. ✘ 25

**Question Number : 16 Question Id : 16 Question Type : MCQ Option Shuffling : No**

**Correct : 1.0 Wrong : 0.0**

In a steel plate with bolted connection, the rupture of net section is mode of failure under

**Options :**

1. ✓ tension
2. ✗ compression
3. ✗ flexure
4. ✗ shear

Question Number : 17 Question Id : 17 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The effective length of circular section electrical pole of length  $L$  and constant diameter erected on the ground is

Options :

1. ✗  $0.80L$
2. ✗  $1.20L$
3. ✗  $1.50L$
4. ✓  $2.00L$

Question Number : 18 Question Id : 18 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

In a plate girder, the web plate is connected to the flange plates by fillet welding, the size of fillet welds is designed to safely resist

Options :

1. ✗ the bending stresses in the flanges
2. ✓ the horizontal shear force between the flanges and the web plate
3. ✗ the force causing buckling in the web
4. ✗ the vertical shear force at the section

Question Number : 19 Question Id : 19 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Which of the following elements of a pitched roof industrial steel building primarily resists lateral load parallel to the ridge?

Options :

1. ✓ bracings
2. ✗ purlins
3. ✗ truss
4. ✗ columns

Question Number : 20 Question Id : 20 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

In plastic theory, among the given shape of the cross section, which the steel member has the largest shape factor?

Options :

1. ✗ rectangular
2. ✓ diamond
3. ✗ solid circular
4. ✗ I-section

Question Number : 21 Question Id : 21 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The consistency of a saturated cohesive soil is affected by

Options :

1. ✓ water content
2. ✗ particle size distribution
3. ✗ uniformity coefficient
4. ✗ coefficient of permeability

Question Number : 22 Question Id : 22 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The liquid limit(LL), plastic limit(PL) and shrinkage limit (SL) of a cohesive soil satisfy the relation

Options :

1. ✗  $LL > PL < SL$
2. ✗  $LL < PL < SL$
3. ✓  $LL > PL > SL$
4. ✗  $LLSL$

Question Number : 23 Question Id : 23 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The void ratio of the soil sample is 1.0, the corresponding porosity of the soil sample is

Options :

1. ✗ 0.25
2. ✓ 0.5
3. ✗ 0.67
4. ✗ 1

Question Number : 24 Question Id : 24 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

In constant head permeameter with the cross section area of 10 sq.cm, when the flow takes place under hydraulic gradient of 0.5, the discharge is measured as  $10 \text{ cm}^3/\text{s}$ . The permeability of the soil in cm/s is

Options :

1. ✗ 0.002
2. ✗ 0.02
3. ✗ 0.2
4. ✓ 2

Question Number : 25 Question Id : 25 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The volume of water that can be released by gravitational effects from a unit volume of an aquifer is its

Options :

1. ✗ specific storage
2. ✓ specific yield
3. ✗ specific porosity
4. ✗ specific drawdown

Question Number : 26 Question Id : 26 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

sand drains are used in saturated clay soil to

Options :

1. ✗ reduce settlement
2. ✓ accelerate the consolidation

- ✘ increase the permeability
- ✘ increase pore pressure

Question Number : 27 Question Id : 27 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

compaction by vibratory roller is the best method of compaction in case of

Options :

- ✘ moist silty sand
- ✘ clay of medium compressibility
- ✔ well graded dry sand
- ✘ silt of high compressibility

Question Number : 28 Question Id : 28 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The appropriate field test to determine the undrained shear strength of soft clay is

Options :

- ✘ plate load test
- ✘ standard penetration test
- ✘ static cone penetration test
- ✔ vane shear test

Question Number : 29 Question Id : 29 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

For a saturated cohesive soil, a triaxial test yields the angle of internal friction as zero. The conducted test is

Options :

- ✘ Consolidated Drained (CD) test
- ✘ Consolidated Undrained (CU) test
- ✘ Unconsolidated Compression (UC) test
- ✔ Unconsolidated Undrained (UU) test

Question Number : 30 Question Id : 30 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Negative skin friction in pile occurs when

Options :

- ✔ the surrounding soil settles more than the pile
- ✘ the pile passes continuously through the firm soil
- ✘ an upward drag exists in the pile
- ✘ the driving operation begins

Question Number : 31 Question Id : 31 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

When one or more of the wires on one side or both sides of the electrical pole or tower are broken, it causes

Options :

- ✘ impact loading
- ✔ unbalance pull or twisting moment
- ✘ cyclic loading
- ✘ uplift pressure

Question Number : 32 Question Id : 32 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

in stabilizing soil by mixing with the cement, the amount of cement used as a percent of soil is

Options :

1. ✘ 0.1 to 1 %
2. ✘ 1 to 5 %
3. ✔ 5 to 14%
4. ✘ 15 to 25%

Question Number : 33 Question Id : 33 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

As per IS classification, a fine grained soil is highly compressible if its liquid limit is more than

Options :

1. ✘ 0.2
2. ✔ 0.5
3. ✘ 0.35
4. ✘ 0.65

Question Number : 34 Question Id : 34 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

California bearing ratio is used to find

Options :

1. ✘ the bearing capacity of soil
2. ✔ the thickness of a flexible pavement
3. ✘ ratio of ultimate bearing capacity to net bearing capacity
4. ✘ depth of foundation

Question Number : 35 Question Id : 35 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Gabions are used for

Options :

1. ✘ underpinning
2. ✘ diverting water
3. ✘ improving bearing capacity of soil
4. ✔ protecting soil from erosion and scouring

Question Number : 36 Question Id : 36 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

According to IS 1904, the allowable values of maximum settlements of RCC rafts on plastic clays and sands are

Options :

1. ✘ 65 mm and 40 mm
2. ✘ 40 mm and 65 mm
3. ✘ 40 mm and 25 mm
4. ✔ 100 mm and 75 mm

Question Number : 37 Question Id : 37 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

A transmission line tower is designed for

Options :

1. ✘ vertical, lateral, and longitudinal loads only
2. ✘ vertical, longitudinal, and torsional loads only
3. ✔ vertical, lateral, longitudinal, and torsional loads
4. ✘ vertical, lateral, and torsional load only

Question Number : 38 Question Id : 38 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

A transmission line tower can be analysed as a

Options :

1. ✘ steel column
2. ✘ propped space frame
3. ✘ space frame with both ends hinged
4. ✔ cantilever space frame

Question Number : 39 Question Id : 39 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

A rectangular beam X has span  $l$ , width  $b$  and depth  $d$ . Another beam Y has the same span and width but the depth is  $2d$ . The flexural strength of beam Y will be \_\_\_\_ as compared beam X

Options :

1. ✘ double
2. ✘ same
3. ✔ four times
4. ✘ six times

Question Number : 40 Question Id : 40 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

At the neutral axis of a beam, the shear stress and bending stress will be \_\_\_\_ and \_\_\_\_, respectively

Options :

1. ✘ zero, zero
2. ✘ zero, maximum
3. ✔ maximum, zero
4. ✘ maximum, maximum

Question Number : 41 Question Id : 41 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The point of contraflexure is that point where

Options :

1. ✘ shear force changes sign
2. ✔ bending moment changes sign
3. ✘ shear force is maximum
4. ✘ bending moment is maximum

Question Number : 42 Question Id : 42 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The ratio of the lateral strain to the linear strain is called

Options :

1. ✘ bulk modulus

- ✘ modulus of elasticity
- ✘ modulus of rigidity
- ✔ Poisson's ratio

Question Number : 43 Question Id : 43 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

A raft foundation is generally preferred when the area required for individual footings is more than

Options :

- ✘ 25% of total area
- ✘ 30% of total area
- ✘ 40% of total area
- ✔ 50% of total area

Question Number : 44 Question Id : 44 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

A vertical column has two moments of inertia ( $I_{xx}$  and  $I_{yy}$ ). Under an axial load, the column will tend to buckle in the direction of the

Options :

- ✘ axis of load
- ✘ perpendicular to the axis of load
- ✘ maximum moment of inertia
- ✔ minimum moment of inertia

Question Number : 45 Question Id : 45 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

A simply supported beam MN of span L is subjected to a point load acting at a point P located at  $L/3$  from support M. The maximum deflection in the beam will occur

Options :

- ✘ at point P
- ✔ somewhere between P and the centre of the span
- ✘ somewhere between M and P
- ✘ at the centre of the span

Question Number : 46 Question Id : 46 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Grain size analysis of a soil indicated that  $D_{10}=0.0009$  mm,  $D_{30}=0.003$  mm, and  $D_{60}=0.0045$  mm. The uniformity coefficient of this soil is

Options :

- ✘ 1.33
- ✘ 3.33
- ✔ 5
- ✘ 0.2

Question Number : 47 Question Id : 47 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Newmark's chart is used in Foundation Engineering to determine

Options :

- ✘ earth pressure

- ✘ seepage loss
- ✔ stress in soil due to surface loading
- ✘ permeability of soils

Question Number : 48 Question Id : 48 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

For Plate load test, the width of the test pit should be at least

Options :

- ✘ 2 times the width of plate
- ✘ 4 times the width of plate
- ✔ 5 times the width of plate
- ✘ 10 times the width of plate

Question Number : 49 Question Id : 49 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

Skin frictional resistance along a pile is provided by the

Options :

- ✔ relative settlement of the pile
- ✘ relative settlement of the soil
- ✘ relative settlement of the pile and the soil
- ✘ angle of repose of the soil

Question Number : 50 Question Id : 50 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

When the water table is close to the ground surface, the bearing capacity of a soil is reduced to

Options :

- ✘ one-fourth
- ✔ one-half
- ✘ two-third
- ✘ three-fourth

Question Number : 51 Question Id : 51 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

Which type of foundation is normally considered safe and economical in black cotton soil?

Options :

- ✘ combined footing
- ✘ strap footing
- ✘ raft footing
- ✔ under-reamed pile

Question Number : 52 Question Id : 52 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

In a gusseted base, when the end of the column is machined for complete bearing on the base plate, the axial load is assumed to be transferred to base plate

Options :

- ✘ 75% by direct bearing and 25% by fastening
- ✔ 50% by direct bearing and 50% by fastening
- ✘ fully by fastening

4. ✘ fully by direct bearing

Question Number : 53 Question Id : 53 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The load on a lintel is considered as uniformly distributed load if the masonry above the lintel is up to a height of

Options :

1. ✘ 0.5 times the effective span
2. ✘ 0.75 times the effective span
3. ✔ 1.25 times the effective span
4. ✘ 1.5 times the effective span

Question Number : 54 Question Id : 54 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Slenderness ratio of the lacing bar for compression member should not exceed

Options :

1. ✘ 125
2. ✘ 135
3. ✔ 145
4. ✘ 155

Question Number : 55 Question Id : 55 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The effective length of a continuous compression member is adopted between \_\_\_\_ times the distance between centres of intersections.

Options :

1. ✔ 0.7 and 1
2. ✘ 1 and 1.3
3. ✘ 1.3 and 1.6
4. ✘ 1.6 and 2

Question Number : 56 Question Id : 56 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

At the time of failure, in a steel column, the average axial stress is related to the yield strength as

Options :

1. ✘ axial stress = yield strength
2. ✔ axial stress < yield strength
3. ✘ axial stress > yield strength
4. ✘ axial stress = 0

Question Number : 57 Question Id : 57 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

$N\text{-s}/m^2$  is used in SI system for

Options :

1. ✘ kinematic viscosity
2. ✔ Dynamic viscosity
3. ✘ mass density
4. ✘ weight density

Question Number : 58 Question Id : 58 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The most commonly adopted method to provide super-elevation on roads, is by providing the road surface about the

Options :

- ✘ outer edge so that the inner edge is lowered
- ✘ crown so that the outer edge is raised and inner edge is lowered
- ✔ inner edge so that outer edge is raised
- ✘ matching level of a nearby road

Question Number : 59 Question Id : 59 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Minimum stopping distance for moving vehicles on road with a design speed of 80 kmph, is

Options :

- ✘ 80 m
- ✘ 100 m
- ✔ 120 m
- ✘ 150 m

Question Number : 60 Question Id : 60 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Damage in large pumping main due to water hammer can be prevented by

Options :

- ✔ Providing surge chamber near pump end
- ✘ Providing surge tank near delivery end
- ✘ providing pipe with guniting on outer surface and coating in inner surface
- ✘ providing pump with sudden shut down

Question Number : 61 Question Id : 61 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Cast iron pipes having plain ends are joined by a joint which is called

Options :

- ✘ flanged joint
- ✘ spigot and socket joint
- ✔ dresser coupling
- ✘ tongue and groove joint

Question Number : 62 Question Id : 62 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The threshold odour number (TON) for a water sample of 20 mL, diluted to standard 100 mL mixture in which the odour is barely detectable is

Options :

- ✘ 20
- ✔ 5
- ✘ 80
- ✘ 0.2

Question Number : 63 Question Id : 63 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

If a 2% solution of sewage is incubated for 3 days at 27 °C, and the dissolved oxygen depletion is 6 mg/L, then the BOD of the sample would be

Options :

1. ✘ 30 mg/L
2. ✘ 600 mg/L
3. ✘ 500 mg/L
4. ✔ 300 mg/L

Question Number : 64 Question Id : 64 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

When the mode of measurement of turbidity is the "absorption of light", the measuring device is called a

Options :

1. ✘ Spectrometer
2. ✘ Tintometer
3. ✔ Turbidimeter
4. ✘ Nephelometer

Question Number : 65 Question Id : 65 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Ringlemann's scale is used to

Options :

1. ✘ measure CO
2. ✘ measure oxides of sulfur
3. ✔ grade density of smoke
4. ✘ grade automobile exhaust gas

Question Number : 66 Question Id : 66 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Two sources generate noise levels of 90 dB and 94 dB, respectively. The cumulative effect of these two noise levels on the human ear is

Options :

1. ✘ 184 dB
2. ✔ 95.5 dB
3. ✘ 94 dB
4. ✘ 92 dB

Question Number : 67 Question Id : 67 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

IS 456-2000 recommends to provide certain minimum steel in a RCC beam

Options :

1. ✘ to ensure compression failure
2. ✔ to avoid rupture of concrete in case of a flexural failure
3. ✘ to hold the stirrups in position
4. ✘ to provide enough ductility to the beam

Question Number : 68 Question Id : 68 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

As the percentage of steel increases in a RCC beam,

Options :

1. ✘ the depth of neutral axis decreases
2. ✔ the depth of neutral axis increases
3. ✘ lever arm increases
4. ✘ lever arm decreases

Question Number : 69 Question Id : 69 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

For a continuous floor slab supported on beams, the ratio of end span length and intermediate span length is

Options :

1. ✘ 0.6
2. ✘ 0.7
3. ✘ 0.8
4. ✔ 0.9

Question Number : 70 Question Id : 70 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Thickened part of a flat slab over its supporting column is technically known as

Options :

1. ✔ drop panel
2. ✘ capital
3. ✘ column head
4. ✘ beam

Question Number : 71 Question Id : 71 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Side face reinforcement shall be provided in the RCC beam when the depth of web in the beam exceeds

Options :

1. ✘ 50 cm
2. ✔ 75 cm
3. ✘ 100 cm
4. ✘ 120 cm

Question Number : 72 Question Id : 72 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

In limit state approach of design of RCC structures, the spacing of main reinforcement bars primarily controls

Options :

1. ✘ collapse
2. ✔ cracking
3. ✘ deflection
4. ✘ durability

Question Number : 73 Question Id : 73 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

In RCC structure, which of the following are independent of the applied load?

1. Elastic strain,
2. Creep strain,
3. Drying shrinkage strain,
4. Carbonation shrinkage.

Select the correct answer using the codes given.

Options :

1. ✘ 1 and 2
2. ✘ 2 and 3
3. ✔ 3 and 4
4. ✘ 1 and 4

Question Number : 74 Question Id : 74 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Generally, the ratio of fatigue life of welded steel structure to fatigue life of riveted steel structure is

Options :

1. ✔ less than 1
2. ✘ equal to 1
3. ✘ between 1 and 2
4. ✘ greater than 2

Question Number : 75 Question Id : 75 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The Darcy-Weisbach friction factor for computing friction loss in pressure pipe depends on

Options :

1. ✘ Froude Number
2. ✘ pipe thickness
3. ✘ pipe slope
4. ✔ Reynold number and relative roughness

Question Number : 76 Question Id : 76 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Firewall protect the computers against the problems of

Options :

1. ✔ attack and viruses from network
2. ✘ fire and excess heat generation
3. ✘ viruses from files on USB drive
4. ✘ low downloading speed

Question Number : 77 Question Id : 77 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

SCADA in power transmission or water distribution is used for

Options :

1. ✘ e-commerce of bill payments
2. ✔ data acquisition and remote control
3. ✘ watching remotely using CCTV
4. ✘ customer portal for handling complaints

Question Number : 78 Question Id : 78 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Which software is used for project management?

Options :

1. ✘ Oracle
2. ✘ Autocad
3. ✘ Ansys
4. ✔ Primavera

Question Number : 79 Question Id : 79 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Which computer tool can be used to collect feedback in form of MCQ from customers using internet at various locations

Options :

1. ✘ email
2. ✘ excel
3. ✔ google form
4. ✘ twitter

Question Number : 80 Question Id : 80 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

To know the latitude and longitude of transmission tower locations which tool can be used?

Options :

1. ✘ LISS-III image
2. ✔ GPS
3. ✘ toposheet
4. ✘ Altimeter

Question Number : 81 Question Id : 81 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Who has written the poem 'Jay Jay Garvi Gujarat'?

Options :

1. ✘ Narsinh Mehta
2. ✔ Narmad
3. ✘ Dalpatram
4. ✘ Premanand

Question Number : 82 Question Id : 82 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Which Archaeological place is included in world heritage list of UNESCO

Options :

1. ✔ Champaner-Pavagadh
2. ✘ Lothal
3. ✘ Junagadh
4. ✘ Dholavira

Question Number : 83 Question Id : 83 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

The present governor of Gujarat is

Options :

1. ✘ Smt Kamla Beniwal
2. ✘ Smt Sumitra Mahajan
3. ✔ Shri O. P. Kohli
4. ✘ Shri R. C.Faldu

Question Number : 84 Question Id : 84 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

Who has the distinction of being the first world no. 1 badminton player from India ?

Options :

1. ✘ Syed Modi
2. ✘ Pullera Gopichand
3. ✘ Chetan Anand
4. ✔ Prakash Padukone

Question Number : 85 Question Id : 85 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

The theme of World Environment Day by UNEP for the year 2015 was

Options :

1. ✘ Raise Your Voice Not the Sea Level
2. ✔ Seven Billion Dreams. One Planet. Consume with Care
3. ✘ Think.Eat.Save.
4. ✘ Unite to save the Environment

Question Number : 86 Question Id : 86 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

The Earth day is celebrated on \_\_\_ every year

Options :

1. ✘ 5th Jun
2. ✘ 19th June
3. ✔ 22nd April
4. ✘ 14th February

Question Number : 87 Question Id : 87 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

ISRO recently launched five UK satellites successfully. The rocket used for this launch was

Options :

1. ✔ PSLV-C28
2. ✘ GSLV-XL
3. ✘ Antarix-I
4. ✘ PSLV-II

Question Number : 88 Question Id : 88 Question Type : MCQ Option Shuffling : No  
Correct : 1.0 Wrong : 0.0

The power of pardon the death sentence is given to the President of India by \_\_\_\_ of the constitution

Options :

1. ✘ Article 71
2. ✔ Article 72
3. ✘ Article 75

4. ✘ Article 22

Question Number : 89 Question Id : 89 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Institute of Plasma Research is situated at

Options :

1. ✔ Bhat,Gandhinagar
2. ✘ Wanakbori
3. ✘ Vadodara
4. ✘ Pokhran

Question Number : 90 Question Id : 90 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

In any given year, the probability of a annual maximum flood greater than magnitude of 800 cumecs in River Vishwamitri is 0.04. The average time between successive occurrence of such flood event is \_\_\_\_\_ years

Options :

1. ✘ 100
2. ✘ 80
3. ✘ 40
4. ✔ 25

Question Number : 91 Question Id : 91 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Following four pairs of the words in options are related in some respect. Identify the pair which is different from other pairs.

Options :

1. ✘ Trees:Forest
2. ✘ Books:Library
3. ✘ Flowers:Bouquets
4. ✔ Ship:Sea

Question Number : 92 Question Id : 92 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Shoe is related to 'Leather' in the same way as 'Shirt' is related to

Options :

1. ✘ Thread
2. ✘ Cotton
3. ✔ Cloth
4. ✘ Tailor

Question Number : 93 Question Id : 93 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Find the word which means the same or has the closest meaning to the verb 'Slump'

Options :

1. ✘ settle
2. ✔ fall
3. ✘ reduce
4. ✘ bend

Question Number : 94 Question Id : 94 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Find the word which means the same or has the closest meaning to the noun 'Oracle'

Options :

1. ✘ Professor
2. ✘ Magician
3. ✔ Prophet
4. ✘ Noble

Question Number : 95 Question Id : 95 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Choose the most appropriate word to complete the sentence.

Population increase \_\_\_\_\_ with depletion of foreign reserve has led to slow development.

Options :

1. ✔ coupled
2. ✘ mixed
3. ✘ added
4. ✘ joined

Question Number : 96 Question Id : 96 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Choose the most appropriate word to complete the sentence.

We have been trying to solve the problems \_\_\_\_\_ .

Options :

1. ✘ since two days
2. ✘ during two days
3. ✔ for two days
4. ✘ from two days

Question Number : 97 Question Id : 97 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Find the word which means the same or has the closest meaning to the phrasal verb 'give in'

Options :

1. ✘ abandon
2. ✔ surrender
3. ✘ distribute
4. ✘ offer

Question Number : 98 Question Id : 98 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.0

Choose the most appropriate alternative from the options given below to complete the following sentence.

Despite of several \_\_\_\_\_ the mission succeeded in its attempt to resolve the conflict.

Options :

1. ✘ attempts
2. ✔ setbacks
3. ✘ meetings
4. ✘ delegations

Question Number : 99 Question Id : 99 Question Type : MCQ Option Shuffling : No

**Correct : 1.0 Wrong : 0.0**

Choose the word that is most opposite in the meaning of the word 'Plethora'

**Options :**

1. ✓ shortage
2. ✗ weakness
3. ✗ sickness
4. ✗ smallness

**Question Number : 100 Question Id : 100 Question Type : MCQ Option Shuffling : No**

**Correct : 1.0 Wrong : 0.0**

Choose the correct spelling of the word having a meaning 'memento'

**Options :**

1. ✗ sovenier
2. ✗ suvenire
3. ✗ souvenir
4. ✓ souvenir