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DFCCIL CBT-2

**Previous Year Paper
Executive (Civil)
17 Dec, 2023 Shift 3**





Dedicated Freight Corridor Corporation of India Ltd.

A Government of India (Ministry of Railways) Enterprise

Participant ID	
Participant Name	
Test Center Name	
Test Date	17/12/2023
Test Time	4:30 PM - 6:30 PM
Subject	Executive Civil

Section : General Knowledge

Q.1 What is the recommended duration for washing hands to ensure effective sanitation?

- Ans**
- ☒ 1. 5 seconds
 - ☒ 2. 15 seconds
 - ☒ 3. 10 seconds
 - ☒ 4. 20 seconds

Question ID : 630680517827
Option 1 ID : 6306802023704
Option 2 ID : 6306802023706
Option 3 ID : 6306802023705
Option 4 ID : 6306802023707
Status : Answered
Chosen Option : 2

Q.2 The Nobel Prize in Physics 2020 was awarded to Professors Penrose, Genzel and Ghez for the discovery of:

- Ans**
- ☒ 1. Dark Matter
 - ☒ 2. Exoplanets
 - ☒ 3. Gravitational Waves
 - ☒ 4. Black Holes

Question ID : 630680517831
Option 1 ID : 6306802023721
Option 2 ID : 6306802023722
Option 3 ID : 6306802023720
Option 4 ID : 6306802023723
Status : Answered
Chosen Option : 2

Q.3 _____ is a bestselling novel written by Paulo Coelho.

- Ans
- ☒ 1. The Twits
 - ☒ 2. The Alchemist
 - ☒ 3. Matilda
 - ☒ 4. Going Solo

Question ID : 630680517830
Option 1 ID : 6306802023716
Option 2 ID : 6306802023717
Option 3 ID : 6306802023718
Option 4 ID : 6306802023719
Status : Answered
Chosen Option : 2

Q.4 The Constituent Assembly adopted the National Flag of India on:

- Ans
- ☒ 1. 26th January 1950
 - ☒ 2. 14th August 1948
 - ☒ 3. 22nd July 1947
 - ☒ 4. 15th August 1947

Question ID : 630680517835
Option 1 ID : 6306802023737
Option 2 ID : 6306802023739
Option 3 ID : 6306802023738
Option 4 ID : 6306802023736
Status : Answered
Chosen Option : 3

Q.5 Name the cyclonic storm formed over the Arabian Sea in October 2023.

- Ans
- ☒ 1. Jhonka
 - ☒ 2. Raftaar
 - ☒ 3. Tej
 - ☒ 4. Zor

Question ID : 630680517834
Option 1 ID : 6306802023735
Option 2 ID : 6306802023734
Option 3 ID : 6306802023732
Option 4 ID : 6306802023733
Status : Answered
Chosen Option : 4

Q.6 Name the cyclonic storm formed over the Bay of Bengal in October 2023.

- Ans
- ☒ 1. Hudhud
 - ☒ 2. Fani
 - ☒ 3. Amphan
 - ☒ 4. Hamoon

Question ID : 630680517832
Option 1 ID : 6306802023724
Option 2 ID : 6306802023727
Option 3 ID : 6306802023725
Option 4 ID : 6306802023726
Status : Answered
Chosen Option : 2

Q.7 The Indian Astronomical Observatory (IAO) in ____ captured stunning images of a rare red-colored aurora known as a Stable Auroral Arc.

- Ans
- ☒ 1. Lakshadweep
 - ☒ 2. Ladakh
 - ☒ 3. Masoorie
 - ☒ 4. Dehradun

Question ID : 630680517833
Option 1 ID : 6306802023731
Option 2 ID : 6306802023729
Option 3 ID : 6306802023728
Option 4 ID : 6306802023730
Status : Answered
Chosen Option : 3

Q.8 The Poona Pact of 1932 was an agreement between Dr. B. R. Ambedkar and:

- Ans
- ☒ 1. Mahatma Gandhi
 - ☒ 2. Pandit Madan Mohan Malaviya
 - ☒ 3. Jawaharlal Nehru
 - ☒ 4. Sardar Patel

Question ID : 630680517829
Option 1 ID : 6306802023712
Option 2 ID : 6306802023715
Option 3 ID : 6306802023713
Option 4 ID : 6306802023714
Status : Answered
Chosen Option : 1

Q.9 Bhutan shares its borders with which two countries?

- Ans
- ☒ 1. India and Nepal
 - ☒ 2. India and China
 - ☒ 3. Nepal and China
 - ☒ 4. Bangladesh and Myanmar

Question ID : 630680517828
Option 1 ID : 6306802023708
Option 2 ID : 6306802023709
Option 3 ID : 6306802023711
Option 4 ID : 6306802023710
Status : Answered
Chosen Option : 2

Q.10 The FIFA World Cup 2026 is scheduled to be held in 3 countries Which of the following countries is NOT a host?

- Ans
- ☒ 1. United States
 - ☒ 2. Italy
 - ☒ 3. Canada
 - ☒ 4. Mexico

Question ID : 630680517836
Option 1 ID : 6306802023743
Option 2 ID : 6306802023742
Option 3 ID : 6306802023740
Option 4 ID : 6306802023741
Status : Answered
Chosen Option : 2

Q.11 The iconic Hawa Mahal, or the Palace of Winds, is located in which Indian city known for its vibrant culture and historical significance?

- Ans ☒ 1. Jaipur
☐ 2. Agra
☐ 3. Varanasi
☐ 4. Udaipur

Question ID : 630680517825
Option 1 ID : 6306802023697
Option 2 ID : 6306802023698
Option 3 ID : 6306802023699
Option 4 ID : 6306802023696
Status : Answered
Chosen Option : 1

Q.12 In banking, what does the term "ATM" stand for?

- Ans ☐ 1. Advanced Transaction Mechanism
☒ 2. Automated Teller Machine
☐ 3. Automatic Transfer Module
☐ 4. All-Time Money

Question ID : 630680517826
Option 1 ID : 6306802023701
Option 2 ID : 6306802023700
Option 3 ID : 6306802023702
Option 4 ID : 6306802023703
Status : Answered
Chosen Option : 2

Section : General Aptitude/Reasoning

Q.1 Three Statements are given followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statement:

- Statement I: All locks are coins.
Statement II: Some coins are keys
Statement III: All keys are cards.

Conclusion:

- Conclusion I: Some locks are cards.
Conclusion II: Some cards are coins

- Ans ☐ 1. Both conclusions I and II follow
☐ 2. Neither conclusion I nor II follows
☐ 3. Only conclusion I follows
☒ 4. Only conclusion II follows

Question ID : 630680517843
Option 1 ID : 6306802023770
Option 2 ID : 6306802023771
Option 3 ID : 6306802023768
Option 4 ID : 6306802023769
Status : Answered
Chosen Option : 4



Q.2 Which two numbers should be interchanged to make the given equation correct?

$$66 \div 6 + 32 \times 4 - 47 = 17$$

- Ans
- ☒ 1. 47 and 32
 - ☒ 2. 6 and 4
 - ☒ 3. 32 and 17
 - ☒ 4. 66 and 17

Question ID : 630680517845
Option 1 ID : 6306802023779
Option 2 ID : 6306802023777
Option 3 ID : 6306802023776
Option 4 ID : 6306802023778

Status : Answered
Chosen Option : 3

Q.3 Six people Sonu, Jia, Priya, Kiran, Bablu, and Ria are sitting in a circle facing outside the centre. Priya and Sonu are sitting exactly opposite to each other. Jia, who is sitting to the immediate left of Sonu, is also exactly opposite to Kiran. Ria is not sitting next to Sonu. Who is sitting between Bablu and Priya?

- Ans
- ☒ 1. Kiran
 - ☒ 2. Ria
 - ☒ 3. Jia
 - ☒ 4. Sonu

Question ID : 630680517842
Option 1 ID : 6306802023764
Option 2 ID : 6306802023765
Option 3 ID : 6306802023766
Option 4 ID : 6306802023767

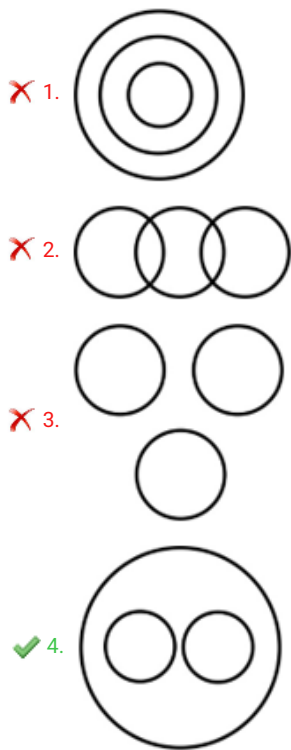
Status : Answered
Chosen Option : 1



Q.4 Which of the following Venn- diagram correctly illustrates the relationship among the classes:

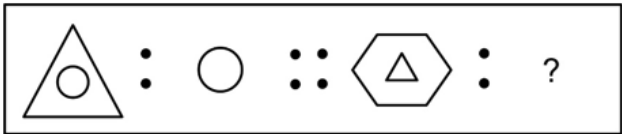
Flower, Tulip, Hibiscus

Ans



Question ID : 630680517846
Option 1 ID : 6306802023780
Option 2 ID : 6306802023782
Option 3 ID : 6306802023781
Option 4 ID : 6306802023783
Status : Answered
Chosen Option : 4

Q.5 Select the figure that will replace the question mark (?) in the following figure series.



Ans

- ✗ 1.
- ✓ 2.
- ✗ 3.
- ✗ 4.

Question ID : 630680517847
Option 1 ID : 6306802023787
Option 2 ID : 6306802023784
Option 3 ID : 6306802023785
Option 4 ID : 6306802023786
Status : Answered
Chosen Option : 2

Q.6 Select the option related to the third word in the same way as the second word is related to the first word.

NECK : TIE :: WAIST : ?

- Ans
- ✓ 1. Belt
 - ✗ 2. Necklace
 - ✗ 3. Watch
 - ✗ 4. Sweater

Question ID : 630680517839
Option 1 ID : 6306802023753
Option 2 ID : 6306802023755
Option 3 ID : 6306802023752
Option 4 ID : 6306802023754
Status : Answered
Chosen Option : 1

Q.7 Four letter-cluster pairs have been given, out of which three are alike in some manner and one is different. Select the odd letter-cluster pair.

- Ans
- ✗ 1. WC: XD
 - ✗ 2. BM: CN
 - ✗ 3. JP: KQ
 - ✓ 4. TY: SX

Question ID : 630680517838
Option 1 ID : 6306802023750
Option 2 ID : 6306802023748
Option 3 ID : 6306802023749
Option 4 ID : 6306802023751
Status : Answered
Chosen Option : 4

Q.8 Select the wrong term in the given series.

IW, JV, KT, LT, MS

- Ans
- ✗ 1. JV
 - ✓ 2. KT
 - ✗ 3. LT
 - ✗ 4. IW

Question ID : 630680517837
Option 1 ID : 6306802023747
Option 2 ID : 6306802023744
Option 3 ID : 6306802023745
Option 4 ID : 6306802023746
Status : Answered
Chosen Option : 2

Q.9 In a certain code language, 'Ta Ma Pa' means 'He seems intelligent'; 'Ma Ya Ta' means 'He seems happy'; 'Ya Sa Ra' means 'Dogs are happy', what is the code for 'intelligent'?

- Ans
- ✗ 1. Ta
 - ✗ 2. Ma
 - ✓ 3. Pa
 - ✗ 4. Sa

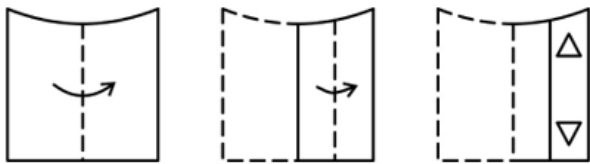
Question ID : 630680517841
Option 1 ID : 6306802023761
Option 2 ID : 6306802023760
Option 3 ID : 6306802023763
Option 4 ID : 6306802023762
Status : Answered
Chosen Option : 3

Q.10 In a certain code language, if RAT is coded as '436', HABIT is coded as '73586', then what will BHARAT be coded as?

- Ans
- ☒ 1. 563736
 - ☒ 2. 573436
 - ☒ 3. 573463
 - ☒ 4. 574336

Question ID : 630680517840
Option 1 ID : 6306802023759
Option 2 ID : 6306802023758
Option 3 ID : 6306802023756
Option 4 ID : 6306802023757
Status : Answered
Chosen Option : 2

Q.11 A paper is folded and cut as shown below. How will it appear when unfolded?



Ans

- ☒ 1.
- ☒ 2.
- ☒ 3.
- ☒ 4.

Question ID : 630680517848
Option 1 ID : 6306802023791
Option 2 ID : 6306802023789
Option 3 ID : 6306802023788
Option 4 ID : 6306802023790
Status : Answered
Chosen Option : 4

Q.12 Find the least number which when multiplied with 3872 will make it a perfect cube.

- Ans
- ☒ 1. 9
 - ☒ 2. 15
 - ☒ 3. 14
 - ☒ 4. 22

Question ID : 630680517844
Option 1 ID : 6306802023772
Option 2 ID : 6306802023775
Option 3 ID : 6306802023774
Option 4 ID : 6306802023773
Status : Answered
Chosen Option : 4

Section : Domain Knowledge

Q.1 If the number of members in a frame are _____, the frame is known as deficient frame. (where, j = number of joints)

- Ans
- ☒ 1. three times of $(2j - 3)$
 - ☒ 2. two times of $(2j - 3)$
 - ☒ 3. less than $(2j - 3)$
 - ☒ 4. equal to $(2j - 3)$

Question ID : 630680517863
Option 1 ID : 6306802023851
Option 2 ID : 6306802023850
Option 3 ID : 6306802023848
Option 4 ID : 6306802023849
Status : Answered
Chosen Option : 3

Q.2 A rectangular plane surface is 3 m wide and 4 m deep and its upper edge coincides with water surface, it lies in vertical plane in water. What will be the total pressure on plane surface? (Take $\rho = 1000 \text{ kg/m}^3$, $g = 9.81 \text{ m/s}^2$)

- Ans
- ☒ 1. 397862 N
 - ☒ 2. 376556 N
 - ☒ 3. 235440 N
 - ☒ 4. 596762 N

Question ID : 630680517930
Option 1 ID : 6306802024118
Option 2 ID : 6306802024117
Option 3 ID : 6306802024116
Option 4 ID : 6306802024119
Status : Answered
Chosen Option : 3

Q.3 Which of the following is correct equation of Unwin's formula, in the context of rivet joint? (where, ϕ = nominal diameter of rivet in mm, t = minimum thickness of plates in mm)

- Ans
- ✓ 1. $\phi = 6.01\sqrt{t}$
 - ✗ 2. $\phi = 6.01 \cdot t$
 - ✗ 3. $\phi = \frac{6.01}{t}$
 - ✗ 4. $\phi = \frac{6.01}{\sqrt{t}}$

Question ID : 630680517891
Option 1 ID : 6306802023960
Option 2 ID : 6306802023961
Option 3 ID : 6306802023963
Option 4 ID : 6306802023962
Status : Answered
Chosen Option : 1

Q.4 Which of the following equation is correct representation of radius of gyration of a body? (where, I = moment of inertia about given axis, A = area of whole body, k = radius of gyration)

- Ans
- ✗ 1. $k = \frac{I}{A}$
 - ✓ 2. $k = \sqrt{\frac{I}{A}}$
 - ✗ 3. $k = \sqrt{IA}$
 - ✗ 4. $k = I \cdot A$

Question ID : 630680517854
Option 1 ID : 6306802023812
Option 2 ID : 6306802023813
Option 3 ID : 6306802023814
Option 4 ID : 6306802023815
Status : Answered
Chosen Option : 2

Q.5 In the context of 'defect of brick', the deformation of the shape of bricks caused by the rain water falling on hot bricks is known as _____.

- Ans
- ✗ 1. bloating
 - ✓ 2. chuffs
 - ✗ 3. efflorescence
 - ✗ 4. black core

Question ID : 630680517868
Option 1 ID : 6306802023870
Option 2 ID : 6306802023871
Option 3 ID : 6306802023869
Option 4 ID : 6306802023868
Status : Answered
Chosen Option : 2

Q.6 Which of the following is type of automatic rain-gauge?

- I. Float type rain-gauge
- II. Non-recording rain-gauge
- III. Tipping bucket rain-gauge

Ans ☒ 1. I, II and III
☒ 2. Only I and III
☒ 3. Only II and III
☒ 4. Only I and II

Question ID : 630680517932
Option 1 ID : 6306802024127
Option 2 ID : 6306802024126
Option 3 ID : 6306802024125
Option 4 ID : 6306802024124
Status : Answered

Chosen Option : 2

Q.7 What is size of broad gauge, which is used in India?

Ans ☒ 1. 1.676 m
☒ 2. 1.563 m
☒ 3. 1.435 m
☒ 4. 1.524 m

Question ID : 630680517922
Option 1 ID : 6306802024084
Option 2 ID : 6306802024087
Option 3 ID : 6306802024086
Option 4 ID : 6306802024085
Status : Answered

Chosen Option : 1

Q.8 In estimation and costing work, D.P.C (Damp proof course) is measured in _____.

Ans ☒ 1. cu m
☒ 2. sq m
☒ 3. quintal
☒ 4. m

Question ID : 630680517942
Option 1 ID : 6306802024165
Option 2 ID : 6306802024164
Option 3 ID : 6306802024167
Option 4 ID : 6306802024166
Status : Answered

Chosen Option : 2

Q.9 Which of the following are types of scale in drawing?

I. Isometric scales

II. Vernier scales

III. Scale of chords

Ans

✓ 1. I, II and III

✗ 2. Only I and III

✗ 3. Only II and III

✗ 4. Only I and II

Question ID : 630680517937

Option 1 ID : 6306802024147

Option 2 ID : 6306802024146

Option 3 ID : 6306802024145

Option 4 ID : 6306802024144

Status : Answered

Chosen Option : 2

Q.10 A soil sample has a porosity of 50 percent. The specific gravity of solids is 2.9, what will be the voids ratio of soil sample?

Ans

✗ 1. 0.88

✓ 2. 1.0

✗ 3. 0.68

✗ 4. 0.95

Question ID : 630680517899

Option 1 ID : 6306802023995

Option 2 ID : 6306802023994

Option 3 ID : 6306802023992

Option 4 ID : 6306802023993

Status : Answered

Chosen Option : 2



Q.11 Which of the following is correct equation of net safe bearing capacity of soil? (where, q_{nf} = net ultimate bearing capacity of soil, F = factor of safety, q_{ns} = net safe bearing capacity of soil)

Ans

✗ 1. $q_{ns} = \frac{F}{q_{nf}}$

✓ 2. $q_{ns} = \frac{q_{nf}}{F}$

✗ 3. $q_{ns} = \frac{q_{nf}^2}{F}$

✗ 4. $q_{ns} = q_{nf} \cdot F$

Question ID : 630680517907
Option 1 ID : 6306802024027
Option 2 ID : 6306802024026
Option 3 ID : 6306802024025
Option 4 ID : 6306802024024
Status : Answered
Chosen Option : 2

Q.12 Young's modulus of a material is $1.5 \times 10^5 \text{ N/mm}^2$ and Poisson's ratio is $1/5$, what will be the bulk modulus?

Ans

✗ 1. $0.93 \times 10^5 \text{ N/mm}^2$

✗ 2. $0.76 \times 10^5 \text{ N/mm}^2$

✓ 3. $0.83 \times 10^5 \text{ N/mm}^2$

✗ 4. $0.97 \times 10^5 \text{ N/mm}^2$

Question ID : 630680517851
Option 1 ID : 6306802023800
Option 2 ID : 6306802023801
Option 3 ID : 6306802023803
Option 4 ID : 6306802023802
Status : Answered
Chosen Option : 3

Q.13 _____ is the ratio of the volume of voids to the total volume of given soil mass.

Ans

✗ 1. Specific gravity

✗ 2. Voids ratio

✓ 3. Porosity

✗ 4. Degree of saturation

Question ID : 630680517897
Option 1 ID : 6306802023986
Option 2 ID : 6306802023984
Option 3 ID : 6306802023985
Option 4 ID : 6306802023987
Status : Answered
Chosen Option : 3



Q.14 As per WHO guidelines, what is the maximum permissible concentration of cadmium in potable water?

- Ans
- ☒ 1. 0.7 mg/L
 - ☒ 2. 0.003 mg/L
 - ☒ 3. 0.01 mg/L
 - ☒ 4. 0.005 mg/L

Question ID : 630680517913
Option 1 ID : 6306802024051
Option 2 ID : 6306802024050
Option 3 ID : 6306802024049
Option 4 ID : 6306802024048

Status : Not Answered

Chosen Option : --

Q.15 A column section I.S.H.B 350 @ 661.2 N/m carries an axial load of 1500 kN and allowable bearing pressure on concrete is 6000 kN/m², what will be required area of the base plate?

- Ans
- ☒ 1. $250 \times 10^3 \text{ mm}^2$
 - ☒ 2. $350 \times 10^3 \text{ mm}^2$
 - ☒ 3. $275 \times 10^3 \text{ mm}^2$
 - ☒ 4. $210 \times 10^3 \text{ mm}^2$

Question ID : 630680517896
Option 1 ID : 6306802023981
Option 2 ID : 6306802023983
Option 3 ID : 6306802023980
Option 4 ID : 6306802023982

Status : Answered

Chosen Option : 1

Q.16 A rectangular beam 120 mm wide and 280 mm deep is subjected to a maximum shear force of 80 kN, then what will be the maximum shear stress of beam?

- Ans
- ☒ 1. 4.67 N/mm²
 - ☒ 2. 2.38 N/mm²
 - ☒ 3. 3.57 N/mm²
 - ☒ 4. 3.76 N/mm²

Question ID : 630680517861
Option 1 ID : 6306802023842
Option 2 ID : 6306802023840
Option 3 ID : 6306802023841
Option 4 ID : 6306802023843

Status : Answered

Chosen Option : 3

Q.17 If a distance of one kilometer on the ground is represented by one centimeter on the drawing sheet, then what will the value of RF (Representative fraction)?

- Ans
- ☐ 1. 1:100
 - ☒ 2. 1:100000
 - ☐ 3. 1:4000
 - ☐ 4. 1:50000

Question ID : 630680517936
Option 1 ID : 6306802024142
Option 2 ID : 6306802024140
Option 3 ID : 6306802024141
Option 4 ID : 6306802024143
Status : Answered
Chosen Option : 2

Q.18 Which of the following is part of permanent way of railway tracks?

- I. Rails
- II. Sleepers
- III. Ballast

- Ans
- ☒ 1. I, II and III
 - ☐ 2. Only II and III
 - ☐ 3. Only I and III
 - ☐ 4. Only I and II

Question ID : 630680517923
Option 1 ID : 6306802024091
Option 2 ID : 6306802024089
Option 3 ID : 6306802024090
Option 4 ID : 6306802024088
Status : Answered
Chosen Option : 4

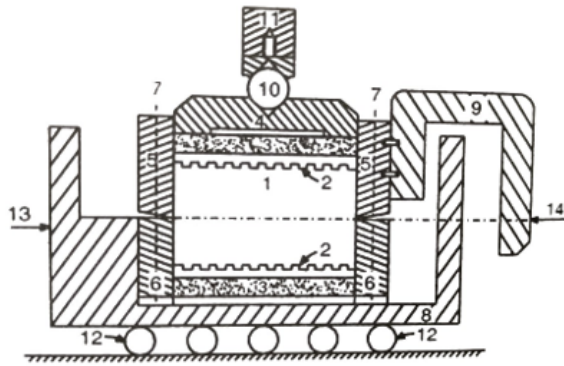
Q.19 In two way slab, the ratio of longer span to shorter span is _____.

- Ans
- ☐ 1. greater than 2
 - ☒ 2. less than 2
 - ☐ 3. equal to 3
 - ☐ 4. equal to 2

Question ID : 630680517885
Option 1 ID : 6306802023937
Option 2 ID : 6306802023936
Option 3 ID : 6306802023939
Option 4 ID : 6306802023938
Status : Answered
Chosen Option : 2



Q.20 Direct shear box is given in figure, what is name of part which is number as '2'?



- Ans
- ✓ 1. Metal grids
 - ✗ 2. U-arm
 - ✗ 3. Loading pad
 - ✗ 4. Steel ball

Question ID : 630680517905
Option 1 ID : 6306802024018
Option 2 ID : 6306802024019
Option 3 ID : 6306802024016
Option 4 ID : 6306802024017

Status : Answered

Chosen Option : 1

Q.21 Which type of beam is shown in the given figure?



- Ans
- ✗ 1. Simply supported beams
 - ✗ 2. Continuous beams
 - ✗ 3. Fixed beams
 - ✓ 4. Overhanging beams

Question ID : 630680517856
Option 1 ID : 6306802023823
Option 2 ID : 6306802023821
Option 3 ID : 6306802023820
Option 4 ID : 6306802023822

Status : Answered

Chosen Option : 4

Q.22 In the context of precipitation, frozen precipitation consists of which of the following?

I. Rainfall

II. Hail

Ans ☒ 1. Neither I nor II

☒ 2. Only II

☒ 3. Both I and II

☒ 4. Only I

Question ID : 630680517931

Option 1 ID : 6306802024123

Option 2 ID : 6306802024121

Option 3 ID : 6306802024122

Option 4 ID : 6306802024120

Status : Answered

Chosen Option : 3

Q.23 Which of the following is correct equation of density index of soil? (where, $e_{\max}$ = voids ratio in the loosest state of soil, $e_{\min}$ = voids ratio in the densest state of soil, e = natural voids ratio, I_D = density index)

Ans ☒ 1. $I_D = \frac{e_{\max} - e}{e_{\max} - e_{\min}}$

☒ 2. $I_D = \frac{e_{\max} - e}{e_{\min} - e_{\max}}$

☒ 3. $I_D = \frac{e_{\max} - e}{e_{\max} + e_{\min}}$

☒ 4. $I_D = \frac{e_{\max} + e}{e_{\max} - e_{\min}}$

Question ID : 630680517898

Option 1 ID : 6306802023990

Option 2 ID : 6306802023989

Option 3 ID : 6306802023991

Option 4 ID : 6306802023988

Status : Answered

Chosen Option : 1

Q.24 In the context of preparation of brick earth, _____ consist of kneading the earth with feet so as to make the mass stiff and plastic?

Ans ☒ 1. unsoiling

☒ 2. digging

☒ 3. tempering

☒ 4. weathering

Question ID : 630680517867

Option 1 ID : 6306802023864

Option 2 ID : 6306802023865

Option 3 ID : 6306802023867

Option 4 ID : 6306802023866

Status : Answered

Chosen Option : 3

Q.25 The revenue chain is _____ long and consists of _____ links.

- Ans
- ☐ 1. 66 ft., 66
 - ☒ 2. 33 ft., 16
 - ☐ 3. 100 ft., 100
 - ☐ 4. 66 ft., 33

Question ID : 630680517940
Option 1 ID : 6306802024159
Option 2 ID : 6306802024156
Option 3 ID : 6306802024158
Option 4 ID : 6306802024157

Status : Answered
Chosen Option : 2

Q.26 Which of the following is NOT a type of distribution system in water supply?

I. Dead end system

II. Radial system

- Ans
- ☐ 1. Only II
 - ☒ 2. Neither I nor II
 - ☐ 3. Both I and II
 - ☐ 4. Only I

Question ID : 630680517914
Option 1 ID : 6306802024053
Option 2 ID : 6306802024055
Option 3 ID : 6306802024054
Option 4 ID : 6306802024052

Status : Answered
Chosen Option : 2

Q.27 In the context of strength of a riveted joint, what will be the strength of rivet in single shear? (where, d = gross diameter of rivet in mm, τ_{vf} = permissible shear stress in rivet in MPa)

- Ans
- ☒ 1. $\frac{\pi}{4} d^2 \tau_{vf}$
 - ☐ 2. $\pi d^2 \tau_{vf}$
 - ☐ 3. $\frac{\pi}{4} d^3 \tau_{vf}$
 - ☐ 4. $\frac{\pi}{2} d^2 \tau_{vf}$

Question ID : 630680517890
Option 1 ID : 6306802023956
Option 2 ID : 6306802023959
Option 3 ID : 6306802023957
Option 4 ID : 6306802023958

Status : Answered
Chosen Option : 1

Q.28 The geometric design of highway depends on which of the following design factor?

- I. Topography
- II. Traffic factor
- III. Cross slope

Ans ☒ 1. I, II and III
☒ 2. Only I and III
☒ 3. Only I and II
☒ 4. Only II and III

Question ID : 630680517919
Option 1 ID : 6306802024075
Option 2 ID : 6306802024074
Option 3 ID : 6306802024072
Option 4 ID : 6306802024073
Status : Answered
Chosen Option : 1

Q.29 In which of the following fluid, shear stress is not proportional to the rate of shear strain?

Ans ☒ 1. Non-Newtonian fluid
☒ 2. Ideal fluid
☒ 3. Newtonian fluid
☒ 4. Ideal plastic fluid

Question ID : 630680517927
Option 1 ID : 6306802024105
Option 2 ID : 6306802024107
Option 3 ID : 6306802024106
Option 4 ID : 6306802024104
Status : Answered
Chosen Option : 1

Q.30 For road section, length of bank is 250 m, the height of bank at the two ends is 2.30 m and 2.80 m and the ratio of the side slope is 3:1, then what will be the total area of side slopes of bank?

Ans ☒ 1. 3125 sqm
☒ 2. 4030 sqm
☒ 3. 2567 sqm
☒ 4. 2837 sqm

Question ID : 630680517944
Option 1 ID : 6306802024175
Option 2 ID : 6306802024172
Option 3 ID : 6306802024173
Option 4 ID : 6306802024174
Status : Answered
Chosen Option : 2

Q.31 Which of the following statement is correct regarding fineness modulus of aggregate?

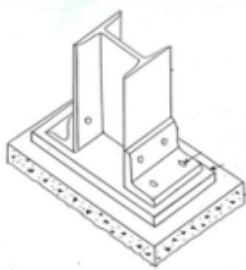
I. The fineness modulus gives idea about the mean size of the particle in the aggregate.

II. The fineness modulus varies between 2.0 and 3.5 for fine aggregate.

- Ans ☒ 1. Both I and II
☐ 2. Only II
☐ 3. Only I
☐ 4. Neither I nor II

Question ID : 630680517870
Option 1 ID : 6306802023878
Option 2 ID : 6306802023877
Option 3 ID : 6306802023876
Option 4 ID : 6306802023879
Status : Answered
Chosen Option : 1

Q.32 Which type of column base is shown in the given figure?



- Ans ☐ 1. Grillage base
☐ 2. Welded column base
☐ 3. Gusset base
☒ 4. Slab base

Question ID : 630680517895
Option 1 ID : 6306802023979
Option 2 ID : 6306802023978
Option 3 ID : 6306802023977
Option 4 ID : 6306802023976
Status : Answered
Chosen Option : 3

Q.33 If Young's modulus of a material is $1.6 \times 10^5 \text{ N/mm}^2$ and modulus of rigidity is $5.2 \times 10^4 \text{ N/mm}^2$, what will be the Poisson's ratio?

- Ans ☐ 1. 0.25
☐ 2. 0.68
☐ 3. 0.34
☒ 4. 0.54

Question ID : 630680517852
Option 1 ID : 6306802023806
Option 2 ID : 6306802023807
Option 3 ID : 6306802023805
Option 4 ID : 6306802023804
Status : Answered
Chosen Option : 4

Q.34 Which of the following road is classified as per Nagpur road plan?

I. Village roads

II. Major district roads

III. State highways

Ans ☒ 1. Only II and III

☒ 2. Only I and II

☒ 3. Only I and III

☒ 4. I, II and III

Question ID : 630680517915

Option 1 ID : 6306802024057

Option 2 ID : 6306802024056

Option 3 ID : 6306802024058

Option 4 ID : 6306802024059

Status : Answered

Chosen Option : 4

Q.35 Which of the following statements is correct regarding vane shear test?

I. Vane shear test determines the undrained shear strength of cohesive soil.

II. The vane shear tester consists of four thin steel plates called vanes.

Ans ☒ 1. Only II

☒ 2. Both I and II

☒ 3. Only I

☒ 4. Neither I nor II

Question ID : 630680517906

Option 1 ID : 6306802024021

Option 2 ID : 6306802024022

Option 3 ID : 6306802024020

Option 4 ID : 6306802024023

Status : Answered

Chosen Option : 2

Q.36 Match of the following conditions of soil to its mode of shear failure.

	Condition		Mode of failure
I	Very deep footing in dense sand	1	Local shear failure
II	Footing on at shallow depth in very dense sand	2	Punching shear failure
III	Footing at great depth, in sand of relative density between 0.7 to 0.9	3	General shear failure

- Ans
- ☒ 1. I-3, II-1, III-2
 - ☒ 2. I-3, II-2, III-1
 - ☒ 3. I-2, II-3, III-1
 - ☒ 4. I-2, II-1, III-3

Question ID : 630680517908
Option 1 ID : 6306802024028
Option 2 ID : 6306802024030
Option 3 ID : 6306802024029
Option 4 ID : 6306802024031
Status : Answered
Chosen Option : 3

Q.37 Which of the following survey is classified based on instruments used?

- Ans
- ☒ 1. Tacheometric survey
 - ☒ 2. Mine survey
 - ☒ 3. Military survey
 - ☒ 4. Astronomical survey

Question ID : 630680517939
Option 1 ID : 6306802024152
Option 2 ID : 6306802024154
Option 3 ID : 6306802024153
Option 4 ID : 6306802024155
Status : Answered
Chosen Option : 1

Q.38 Which of the following statement is correct regarding plane surveying?

- I. Plane surveying is the type of surveying in which the mean surface of the earth is considered as a plane and the spheroidal shape is neglected.
- II. In plane surveying, all lines lying in the surface are curved line and the triangles are spherical triangle.

- Ans
- ☒ 1. Both I and II
 - ☒ 2. Neither I nor II
 - ☒ 3. Only I
 - ☒ 4. Only II

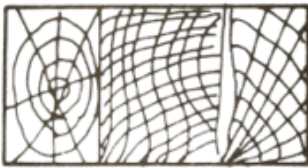
Question ID : 630680517938
Option 1 ID : 6306802024150
Option 2 ID : 6306802024151
Option 3 ID : 6306802024148
Option 4 ID : 6306802024149
Status : Answered
Chosen Option : 3

Q.39 As per IRC recommendation, what is the width of carriageway for two lanes, with raised kerbs?

- Ans
- ☒ 1. 9.5 m
 - ☒ 2. 7.5 m
 - ☐ 3. 7.0 m
 - ☐ 4. 8.0 m

Question ID : 630680517921
Option 1 ID : 6306802024083
Option 2 ID : 6306802024080
Option 3 ID : 6306802024081
Option 4 ID : 6306802024082
Status : Answered
Chosen Option : 2

Q.40 What is the name of material as shown in given figure?



- Ans
- ☒ 1. Wood
 - ☐ 2. Brass
 - ☐ 3. Cement concrete
 - ☐ 4. Earth

Question ID : 630680517934
Option 1 ID : 6306802024132
Option 2 ID : 6306802024135
Option 3 ID : 6306802024133
Option 4 ID : 6306802024134
Status : Answered
Chosen Option : 1

Q.41 Which of the following design methods are used for the design of reinforced concrete structure?

- I. Working stress method
- II. Ultimate load method
- III. Limit state method

- Ans
- ☐ 1. Only I and II
 - ☒ 2. I, II and III
 - ☐ 3. Only II and III
 - ☐ 4. Only I and III

Question ID : 630680517873
Option 1 ID : 6306802023888
Option 2 ID : 6306802023891
Option 3 ID : 6306802023889
Option 4 ID : 6306802023890
Status : Answered
Chosen Option : 2

Q.42 A cantilever beam have length 'L' and it is subjected to uniformly distributed load 'w/unit length', what will the deflection of beam at free end?

Ans

✓ 1. $\frac{wL^4}{8EI}$

✗ 2. $\frac{wL^4}{24EI}$

✗ 3. $\frac{wL^3}{12EI}$

✗ 4. $\frac{wL^3}{24EI}$

Question ID : 630680517865

Option 1 ID : 6306802023856

Option 2 ID : 6306802023858

Option 3 ID : 6306802023857

Option 4 ID : 6306802023859

Status : Answered

Chosen Option : 1

Q.43 As per IS: 456-2000, a reinforced concrete column having helical reinforcement shall have at least _____ bar of longitudinal reinforcement.

Ans

✗ 1. 8

✗ 2. 4

✓ 3. 6

✗ 4. 9

Question ID : 630680517886

Option 1 ID : 6306802023941

Option 2 ID : 6306802023942

Option 3 ID : 6306802023940

Option 4 ID : 6306802023943

Status : Answered

Chosen Option : 3

Q.44 In _____ arrangement of bonding brick work, each course consists of alternate headers and stretchers.

Ans

✗ 1. English bond

✗ 2. heading bond

✓ 3. flemish bond

✗ 4. stretching bond

Question ID : 630680517871

Option 1 ID : 6306802023880

Option 2 ID : 6306802023882

Option 3 ID : 6306802023881

Option 4 ID : 6306802023883

Status : Answered

Chosen Option : 3



Q.45 During the design of shear reinforcement, shear reinforcement can be provide in which of the following forms?

- I. Bent up bars with stirrups
- II. Vertical stirrups
- III. Inclined stirrups

Ans ☒ 1. Only II and III
☒ 2. Only I and III
☒ 3. Only I and II
☒ 4. I, II and III

Question ID : 630680517879
Option 1 ID : 6306802023913
Option 2 ID : 6306802023914
Option 3 ID : 6306802023912
Option 4 ID : 6306802023915
Status : Answered
Chosen Option : 4

Q.46 Which of the following is correct relation between shear force and bending moment?

Ans ☒ 1. $\frac{d^2F}{dx^2} = M$
☒ 2. $\frac{d^2M}{dx^2} = F$
☒ 3. $\frac{dF}{dx} = M$
☒ 4. $\frac{dM}{dx} = F$

Question ID : 630680517859
Option 1 ID : 6306802023834
Option 2 ID : 6306802023835
Option 3 ID : 6306802023832
Option 4 ID : 6306802023833
Status : Answered
Chosen Option : 4

Q.47 Which of the following statement is correct regarding batten in built-up columns?

- I. Battens are plates used to connect the main components of compression members.
- II. Batten should be placed opposite to each other on the two parallel faces.

Ans ☒ 1. Both I and II
☒ 2. Only I
☒ 3. Only II
☒ 4. Neither I nor II

Question ID : 630680517893
Option 1 ID : 6306802023970
Option 2 ID : 6306802023968
Option 3 ID : 6306802023969
Option 4 ID : 6306802023971
Status : Answered
Chosen Option : 1



Q.48 Which type of road pattern is shown in the given figure?



- Ans
- ☐ 1. Star and circular pattern
 - ☐ 2. Block pattern
 - ☐ 3. Hexagonal pattern
 - ☒ 4. Star and grid pattern

Question ID : 630680517916

Option 1 ID : 6306802024061

Option 2 ID : 6306802024063

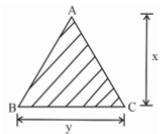
Option 3 ID : 6306802024062

Option 4 ID : 6306802024060

Status : Answered

Chosen Option : 4

Q.49 What will be the moment of inertia of the section about an axis passing through the base BC of a triangular section shown in figure?



- Ans
- ☐ 1. $I_{BC} = \frac{xy^3}{18}$
 - ☐ 2. $I_{BC} = \frac{xy^3}{36}$
 - ☒ 3. $I_{BC} = \frac{yx^3}{12}$
 - ☐ 4. $I_{BC} = \frac{xy^3}{12}$

Question ID : 630680517855

Option 1 ID : 6306802023817

Option 2 ID : 6306802023816

Option 3 ID : 6306802023818

Option 4 ID : 6306802023819

Status : Answered

Chosen Option : 3

Q.50 In the context of principal planes and principal stresses, the stresses on oblique section are determined by which of the following method?

I. Analytical method

II. Graphical method

- Ans**
- ☐ 1. Only I
 - ☐ 2. Only II
 - ☐ 3. Neither I nor II
 - ☒ 4. Both I and II

Question ID : 630680517853
Option 1 ID : 6306802023808
Option 2 ID : 6306802023809
Option 3 ID : 6306802023811
Option 4 ID : 6306802023810
Status : Answered
Chosen Option : 4

Q.51 Which of the following method is used to determine the coefficient of consolidation?

I. Square root of time fitting method

II. Logarithm of time fitting method

- Ans**
- ☐ 1. Only I
 - ☐ 2. Neither I nor II
 - ☐ 3. Only II
 - ☒ 4. Both I and II

Question ID : 630680517904
Option 1 ID : 6306802024012
Option 2 ID : 6306802024015
Option 3 ID : 6306802024013
Option 4 ID : 6306802024014
Status : Answered
Chosen Option : 4

Q.52 As per IRC, what is the recommended value of camber for earth road in heavy rain fall area?

- Ans**
- ☐ 1. 1 in 33
 - ☒ 2. 1 in 25
 - ☐ 3. 1 in 40
 - ☐ 4. 1 in 50

Question ID : 630680517920
Option 1 ID : 6306802024076
Option 2 ID : 6306802024077
Option 3 ID : 6306802024078
Option 4 ID : 6306802024079
Status : Answered
Chosen Option : 2

Q.53 Which of the following is purpose of scales?

I. The scales are used to measure and set off dimensions as per scales decided upon or given before starting the drawing work.

II. The scales help to measure linear measurements of the object under measurement directly without involving any calculation.

- Ans**
- ☒ 1. Only I
 - ☒ 2. Both I and II
 - ☒ 3. Neither I nor II
 - ☒ 4. Only II

Question ID : 630680517935
Option 1 ID : 6306802024136
Option 2 ID : 6306802024138
Option 3 ID : 6306802024139
Option 4 ID : 6306802024137
Status : Answered
Chosen Option : 2

Q.54 As per IS: 800-1984, the distance between the centre of two consecutive rivets in the direction of stress should not exceed _____, in tension member.

- Ans**
- ☒ 1. 21 t or 500 mm, whichever is more
 - ☒ 2. 16 t or 200 mm, whichever is more
 - ☒ 3. 16 t or 200 mm, whichever is less
 - ☒ 4. 12 t or 200 mm, whichever is less

Question ID : 630680517889
Option 1 ID : 6306802023953
Option 2 ID : 6306802023952
Option 3 ID : 6306802023954
Option 4 ID : 6306802023955
Status : Answered
Chosen Option : 3

Q.55 The ratio of shear stress to the corresponding shear strain within the elastic limit, is known as _____.

- Ans**
- ☒ 1. Poisson's ratio
 - ☒ 2. modulus of rigidity
 - ☒ 3. factor of safety
 - ☒ 4. modulus of elasticity

Question ID : 630680517849
Option 1 ID : 6306802023795
Option 2 ID : 6306802023792
Option 3 ID : 6306802023794
Option 4 ID : 6306802023793
Status : Answered
Chosen Option : 2

Q.56 Which of the following method is used to determine water content of soil sample?

I. Oven drying method

II. Radiation method

III. Torsion balance method

Ans ☒ 1. Only I and III

☒ 2. Only I and II

☒ 3. I, II and III

☒ 4. Only II and III

Question ID : 630680517900

Option 1 ID : 6306802023998

Option 2 ID : 6306802023996

Option 3 ID : 6306802023999

Option 4 ID : 6306802023997

Status : Answered

Chosen Option : 3

Q.57 As per IS: 800-1984, what is permissible stress in axial tension for power driven rivet?

Ans ☒ 1. 300 MPa

☒ 2. 80 MPa

☒ 3. 100 MPa

☒ 4. 250 MPa

Question ID : 630680517888

Option 1 ID : 6306802023949

Option 2 ID : 6306802023948

Option 3 ID : 6306802023951

Option 4 ID : 6306802023950

Status : Answered

Chosen Option : 3

Q.58 As per IS: 456-2000, the limiting value of the depth of the neutral axis, for Fe 415 steel is _____.

Ans ☒ 1. 0.48

☒ 2. 0.46

☒ 3. 0.63

☒ 4. 0.53

Question ID : 630680517875

Option 1 ID : 6306802023898

Option 2 ID : 6306802023899

Option 3 ID : 6306802023897

Option 4 ID : 6306802023896

Status : Answered

Chosen Option : 1

Q.59 When tension member is subjected to axial load, the net area required (A_{net}) to carry the design load 'P' is obtained by which of the following equation? (where, σ_{at} = stress in axial tension in MPa)

- Ans**
- ✓ 1. $P = \sigma_{at} \cdot A_{net}$
 - ✗ 2. $P = \frac{\sigma_{at}}{A_{net}}$
 - ✗ 3. $P = A_{net} \cdot \sigma_{at}^2$
 - ✗ 4. $P = \frac{A_{net}}{\sigma_{at}}$

Question ID : 630680517894

Option 1 ID : 6306802023972

Option 2 ID : 6306802023973

Option 3 ID : 6306802023975

Option 4 ID : 6306802023974

Status : Answered

Chosen Option : 1

Q.60 According to the IS code (IS: 456-2000) for design purpose, the compressive strength of concrete in the structure shall be assumed to be _____ times the characteristic strength.

- Ans**
- ✗ 1. 0.97
 - ✗ 2. 0.87
 - ✓ 3. 0.67
 - ✗ 4. 0.77

Question ID : 630680517874

Option 1 ID : 6306802023894

Option 2 ID : 6306802023892

Option 3 ID : 6306802023893

Option 4 ID : 6306802023895

Status : Answered

Chosen Option : 3

Q.61 As per IS: 456-2000, what is recommended value of design bond stress for plain bars in tension for M20 grade of concrete?

- Ans**
- ✗ 1. 1.7 N/mm²
 - ✗ 2. 1.5 N/mm²
 - ✗ 3. 1.4 N/mm²
 - ✓ 4. 1.2 N/mm²

Question ID : 630680517880

Option 1 ID : 6306802023919

Option 2 ID : 6306802023918

Option 3 ID : 6306802023917

Option 4 ID : 6306802023916

Status : Answered

Chosen Option : 4



Q.62 In the context of ‘unified soil classification system’, match of the following soil to its group symbols.

	Soil		Group symbols
I	Clayey sand	1	GM
II	Silty sand	2	SM
III	Clayey gravel	3	SC
IV	Silty gravel	4	GC

- Ans
- ✓ 1. I-3, II-2, III-4, IV-1
 - ✗ 2. I-2, II-4, III-3, IV-1
 - ✗ 3. I-2, II-3, III-1, IV-4
 - ✗ 4. I-3, II-4, III-1, IV-2

Question ID : 630680517902
Option 1 ID : 6306802024007
Option 2 ID : 6306802024005
Option 3 ID : 6306802024006
Option 4 ID : 6306802024004
Status : Answered
Chosen Option : 1

Q.63 A cantilever beam have length ‘L’, and it is subjected to point load ‘P’ at free end, what will be the deflection of beam at free end?

- Ans
- ✗ 1. $\frac{PL^3}{24EI}$
 - ✗ 2. $\frac{PL^3}{12EI}$
 - ✗ 3. $\frac{PL^4}{12EI}$
 - ✓ 4. $\frac{PL^3}{3EI}$

Question ID : 630680517866
Option 1 ID : 6306802023863
Option 2 ID : 6306802023862
Option 3 ID : 6306802023861
Option 4 ID : 6306802023860
Status : Answered
Chosen Option : 4

Q.64 As per IS: 456-2000, a compression member effectively held in position and restrained against rotation at both ends, what is the recommended value of effective length. (where, l = actual length of compression member)

- Ans
- ☒ 1. $1.50 l$
 - ☒ 2. $0.80 l$
 - ☒ 3. $0.65 l$
 - ☒ 4. $1.00 l$

Question ID : 630680517884

Option 1 ID : 6306802023934

Option 2 ID : 6306802023932

Option 3 ID : 6306802023935

Option 4 ID : 6306802023933

Status : Answered

Chosen Option : 3

Q.65 The maximum shear stress for a circular beam section is given by which of the following equation? (where, τ_{avg} = average shear stress, τ_{max} = maximum shear stress)

- Ans
- ☒ 1. $\tau_{max} = \frac{1}{2} \tau_{avg}$
 - ☒ 2. $\tau_{max} = \frac{2}{3} \tau_{avg}$
 - ☒ 3. $\tau_{max} = \frac{4}{3} \times \tau_{avg}$
 - ☒ 4. $\tau_{max} = \frac{1}{3} \times \tau_{avg}$

Question ID : 630680517862

Option 1 ID : 6306802023847

Option 2 ID : 6306802023846

Option 3 ID : 6306802023845

Option 4 ID : 6306802023844

Status : Answered

Chosen Option : 3

Q.66 As per IS: 456-2000, the nominal shear stress τ_v in beam of uniform depth is determined from which of the following equation? (where, V_u = shear force due to design load, b = width of beam, d = effective depth)

- Ans
- ☒ 1. $\tau_v = V_u bd$
 - ☒ 2. $\tau_v = \frac{V_u}{bd^2}$
 - ☒ 3. $\tau_v = \frac{V_u}{bd}$
 - ☒ 4. $\tau_v = \frac{V_u}{bd^3}$

Question ID : 630680517877

Option 1 ID : 6306802023907

Option 2 ID : 6306802023905

Option 3 ID : 6306802023904

Option 4 ID : 6306802023906

Status : Answered

Chosen Option : 3

Q.67 As per IS: 456-2000, the minimum number of longitudinal bars provided in a column shall be _____ in rectangular columns and _____ in circular columns.

- Ans**
- ☐ 1. 5, 3
 - ☐ 2. 8, 4
 - ☐ 3. 6, 4
 - ☒ 4. 4, 6

Question ID : 630680517883
Option 1 ID : 6306802023929
Option 2 ID : 6306802023931
Option 3 ID : 6306802023928
Option 4 ID : 6306802023930
Status : Answered
Chosen Option : 4

Q.68 The _____ of a member is the ratio of the effective length to the appropriate radius of gyration.

- Ans**
- ☒ 1. slenderness ratio
 - ☐ 2. rivet value
 - ☐ 3. poisson's ratio
 - ☐ 4. amplification factor

Question ID : 630680517892
Option 1 ID : 6306802023964
Option 2 ID : 6306802023967
Option 3 ID : 6306802023965
Option 4 ID : 6306802023966
Status : Answered
Chosen Option : 1

Q.69 Which of the following is type of load?

- I. Point load
- II. Uniformly varying load

- Ans**
- ☐ 1. Only II
 - ☒ 2. Both I and II
 - ☐ 3. Neither I nor II
 - ☐ 4. Only I

Question ID : 630680517857
Option 1 ID : 6306802023825
Option 2 ID : 6306802023826
Option 3 ID : 6306802023827
Option 4 ID : 6306802023824
Status : Answered
Chosen Option : 2



Q.70 A frame is analysed by which of the following method?

I. Method of joints

II. Method of section

- Ans
- ☐ 1. Neither I nor II
 - ☐ 2. Only II
 - ☒ 3. Both I and II
 - ☐ 4. Only I

Question ID : 630680517864
Option 1 ID : 6306802023855
Option 2 ID : 6306802023853
Option 3 ID : 6306802023854
Option 4 ID : 6306802023852
Status : Answered
Chosen Option : 3

Q.71 As per IS: 456-2000, in the context of T-beam if the main reinforcement of the slab is parallel to the beam, transverse reinforcement shall be provided, such reinforcement shall not be less than _____ of the main reinforcement.

- Ans
- ☐ 1. 75 percent
 - ☐ 2. 90 percent
 - ☒ 3. 60 percent
 - ☐ 4. 50 percent

Question ID : 630680517876
Option 1 ID : 6306802023903
Option 2 ID : 6306802023902
Option 3 ID : 6306802023901
Option 4 ID : 6306802023900
Status : Answered
Chosen Option : 3

Q.72 Which type of stair is shown in the given figure?



- Ans
- ☐ 1. Bifurcated stair
 - ☐ 2. Circular stair
 - ☐ 3. Straight stair
 - ☒ 4. Dog-legged stair

Question ID : 630680517872
Option 1 ID : 6306802023885
Option 2 ID : 6306802023884
Option 3 ID : 6306802023886
Option 4 ID : 6306802023887
Status : Answered
Chosen Option : 4

Q.73 As per IS: 1172-1993, what is minimum domestic water consumption for weaker sections and LIG colonies in small Indian towns and cities?

- Ans
- ☐ 1. 200 l/h/d
 - ☒ 2. 135 l/h/d
 - ☐ 3. 250 l/h/d
 - ☐ 4. 350 l/h/d

Question ID : 630680517909
Option 1 ID : 6306802024032
Option 2 ID : 6306802024033
Option 3 ID : 6306802024034
Option 4 ID : 6306802024035
Status : Answered
Chosen Option : 2

Q.74 Which of the following factor is responsible for change in populations?

- I. Deaths
- II. Migrations
- III. Per capita demand of water

- Ans
- ☐ 1. I, II and III
 - ☒ 2. Only I and II
 - ☐ 3. Only II and III
 - ☐ 4. Only I and III

Question ID : 630680517912
Option 1 ID : 6306802024047
Option 2 ID : 6306802024044
Option 3 ID : 6306802024045
Option 4 ID : 6306802024046
Status : Answered
Chosen Option : 2

Q.75 A rectangular section has width 'b' and depth is 'd', then what will be section modulus of beam section?

- Ans
- ☐ 1. $\frac{bd^2}{12}$
 - ☐ 2. $\frac{bd^3}{6}$
 - ☒ 3. $\frac{bd^2}{6}$
 - ☐ 4. $\frac{bd}{6}$

Question ID : 630680517860
Option 1 ID : 6306802023839
Option 2 ID : 6306802023836
Option 3 ID : 6306802023837
Option 4 ID : 6306802023838
Status : Answered
Chosen Option : 3

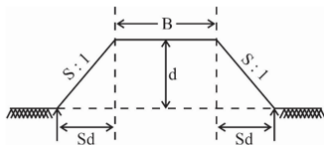
Q.76 _____ is the distance between adjacent rivet lines, or the distance between the back of the rolled section and the first rivet line, or centre to centre distance between two consecutive rivets measured along the width of the member connection.

- Ans
- ☒ 1. Pitch
 - ☒ 2. Edge distance
 - ☒ 3. Gauge
 - ☒ 4. Slip factor

Question ID : 630680517887
Option 1 ID : 6306802023946
Option 2 ID : 6306802023947
Option 3 ID : 6306802023944
Option 4 ID : 6306802023945

Status : Answered
Chosen Option : 3

Q.77 Cross-section of earthwork of road in banking is given in figure, what will be the quantity of earthwork? (where, L = length of road)



- Ans
- ☒ 1. $Q = (Bd + sd) \times L$
 - ☒ 2. $Q = (Bd + sd^2) \times L$
 - ☒ 3. $Q = (Bd + sd^3) \times L$
 - ☒ 4. $Q = (Bd^2 + sd^3) \times L$

Question ID : 630680517943
Option 1 ID : 6306802024171
Option 2 ID : 6306802024169
Option 3 ID : 6306802024168
Option 4 ID : 6306802024170

Status : Answered
Chosen Option : 2

Q.78 A simply supported beam of length ' l ', carrying a uniformly varying load from zero at each end to ' w ' per unit length at the centre, that what will be the maximum bending moment of beam?

Ans

✓ 1. $\frac{wl^2}{12}$

✗ 2. $\frac{wl^2}{8}$

✗ 3. $\frac{wl^3}{18}$

✗ 4. $\frac{wl^3}{12}$

Question ID : 630680517858

Option 1 ID : 6306802023829

Option 2 ID : 6306802023830

Option 3 ID : 6306802023831

Option 4 ID : 6306802023828

Status : Answered

Chosen Option : 1

Q.79 A compression member may be considered as short when both the slenderness ratios $\frac{l_{ex}}{D}$ and $\frac{l_{ey}}{b}$ are less than _____. (where, l_{ex} = effective length in respect of major axis, l_{ey} = effective length in respect of minor axis, b = width of the member, D = depth in respect of the major axis)

Ans

✗ 1. 8

✗ 2. 10

✗ 3. 18

✓ 4. 12

Question ID : 630680517882

Option 1 ID : 6306802023925

Option 2 ID : 6306802023924

Option 3 ID : 6306802023927

Option 4 ID : 6306802023926

Status : Answered

Chosen Option : 4

Q.80 As per IS: 456-2000, what is the recommended value of maximum shear stress for M20 grade of concrete?

Ans

✗ 1. 2.5 N/mm^2

✗ 2. 3.1 N/mm^2

✓ 3. 2.8 N/mm^2

✗ 4. 3.5 N/mm^2

Question ID : 630680517878

Option 1 ID : 6306802023908

Option 2 ID : 6306802023910

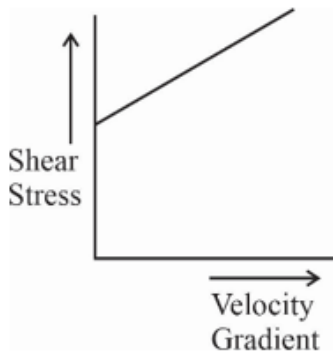
Option 3 ID : 6306802023909

Option 4 ID : 6306802023911

Status : Answered

Chosen Option : 3

Q.81 Which type fluid is shown in the given graph?



- Ans
- ☒ 1. Newtonian fluid
 - ☒ 2. Ideal plastic fluid
 - ☒ 3. Ideal fluid
 - ☒ 4. Real fluid

Question ID : 630680517928
Option 1 ID : 6306802024110
Option 2 ID : 6306802024108
Option 3 ID : 6306802024111
Option 4 ID : 6306802024109

Status : Answered

Chosen Option : 2

Q.82 In the context of rail fastening, which type of spikes is shown in given figure?



- Ans
- ☒ 1. Round-spikes
 - ☒ 2. Dog-spikes
 - ☒ 3. Screw-spikes
 - ☒ 4. Elastic-spikes

Question ID : 630680517925
Option 1 ID : 6306802024098
Option 2 ID : 6306802024096
Option 3 ID : 6306802024097
Option 4 ID : 6306802024099

Status : Answered

Chosen Option : 3

Q.83 Which of the following factors affect per capita demand of water?

I. Climatic conditions

II. Quality of water supplies

III. Industrial and commercial activities

Ans

☐ 1. Only I and II

☐ 2. Only II and III

☒ 3. I, II and III

☐ 4. Only I and III

Question ID : 630680517911

Option 1 ID : 6306802024040

Option 2 ID : 6306802024041

Option 3 ID : 6306802024043

Option 4 ID : 6306802024042

Status : Answered

Chosen Option : 3

Q.84 Pycnometer method is used to determine, which of the following property of soil sample?

Ans

☐ 1. Specific gravity

☐ 2. Density index

☐ 3. In-situ density

☒ 4. Water content

Question ID : 630680517901

Option 1 ID : 6306802024001

Option 2 ID : 6306802024003

Option 3 ID : 6306802024002

Option 4 ID : 6306802024000

Status : Answered

Chosen Option : 1

Q.85 Which type of rail is shown in the given figure?



Ans

☐ 1. Double headed rails

☐ 2. Bull headed rails

☒ 3. Flat footed rails

☐ 4. T headed rails

Question ID : 630680517924

Option 1 ID : 6306802024092

Option 2 ID : 6306802024094

Option 3 ID : 6306802024093

Option 4 ID : 6306802024095

Status : Answered

Chosen Option : 3



Q.86 Which of the following is type of differential manometer?

I. U-tube differential manometer

II. Inverted U-tube differential manometer

- Ans ☒ 1. Neither I nor II
☒ 2. Both I and II
☒ 3. Only II
☒ 4. Only I

Question ID : 630680517929
Option 1 ID : 6306802024115
Option 2 ID : 6306802024114
Option 3 ID : 6306802024113
Option 4 ID : 6306802024112
Status : Answered
Chosen Option : 2

Q.87 Which of the following statement is correct regarding aquifer?

I. Aquifer are the impermeable formation which contain water but are not capable of transmitting or supplying a significant quantity.

II. Confined aquifer is a type of aquifer.

- Ans ☒ 1. Neither I nor II
☒ 2. Both I and II
☒ 3. Only II
☒ 4. Only I

Question ID : 630680517903
Option 1 ID : 6306802024011
Option 2 ID : 6306802024010
Option 3 ID : 6306802024009
Option 4 ID : 6306802024008
Status : Answered
Chosen Option : 3

Q.88 As per IS 456:2000, the maximum compressive strain in concrete in axial compression is taken as _____.

- Ans ☒ 1. 0.00035
☒ 2. 0.006
☒ 3. 0.002
☒ 4. 0.007

Question ID : 630680517881
Option 1 ID : 6306802023920
Option 2 ID : 6306802023922
Option 3 ID : 6306802023921
Option 4 ID : 6306802023923
Status : Answered
Chosen Option : 3

Q.89 The ratio of axial deformation to the original length of the body is known as _____.

- Ans
- ☐ 1. bulk modulus
 - ☐ 2. volumetric strain
 - ☐ 3. lateral strain
 - ☒ 4. longitudinal strain

Question ID : 630680517850

Option 1 ID : 6306802023799

Option 2 ID : 6306802023798

Option 3 ID : 6306802023796

Option 4 ID : 6306802023797

Status : Answered

Chosen Option : 4

Q.90 In the context of 'defect in timber', which of the following defect are caused by the crushing of fibres running transversely during the growth of the tree due to strong winds?

- Ans
- ☐ 1. End splits
 - ☐ 2. Rupture
 - ☐ 3. Knots
 - ☒ 4. Upsets

Question ID : 630680517869

Option 1 ID : 6306802023875

Option 2 ID : 6306802023873

Option 3 ID : 6306802023872

Option 4 ID : 6306802023874

Status : Answered

Chosen Option : 2

Q.91 In the context of fire demand, which of the following is correct equation of Kuichling's formula? (where, Q = amount of water required in liters/minute, P = population in thousands)

- Ans
- ☒ 1. $Q = 3182 \sqrt{P}$
 - ☐ 2. $Q = 3182.P$
 - ☐ 3. $Q = 1136 \left[\frac{P}{10} + 10 \right]$
 - ☐ 4. $Q = 3182 \left[\frac{P}{10} + 10 \right]$

Question ID : 630680517910

Option 1 ID : 6306802024037

Option 2 ID : 6306802024036

Option 3 ID : 6306802024039

Option 4 ID : 6306802024038

Status : Answered

Chosen Option : 1

Q.92 Which of the following is NOT a component of detailed project report?

- Ans
- ☐ 1. Drawing
 - ☐ 2. Estimate
 - ☐ 3. Report
 - ☒ 4. Kerbs

Question ID : 630680517918
Option 1 ID : 6306802024068
Option 2 ID : 6306802024070
Option 3 ID : 6306802024071
Option 4 ID : 6306802024069
Status : Answered
Chosen Option : 4

Q.93 If reduced bearing of a line is N θ W, then W.C.B (Whole circle bearing) of line lies between _____.

- Ans
- ☐ 1. 180° and 270°
 - ☐ 2. 0° and 90°
 - ☐ 3. 90° and 180°
 - ☒ 4. 270° and 360°

Question ID : 630680517941
Option 1 ID : 6306802024161
Option 2 ID : 6306802024163
Option 3 ID : 6306802024162
Option 4 ID : 6306802024160
Status : Answered
Chosen Option : 4

Q.94 Arrange the steps of engineering survey for highway alignment from first to last.

- I. Preliminary survey
- II. Reconnaissance survey
- III. Map study
- IV. Final location and detailed survey

- Ans
- ☐ 1. II, III, IV, I
 - ☐ 2. IV, III, I, II
 - ☐ 3. II, III, I, IV
 - ☒ 4. III, II, I, IV

Question ID : 630680517917
Option 1 ID : 6306802024066
Option 2 ID : 6306802024067
Option 3 ID : 6306802024064
Option 4 ID : 6306802024065
Status : Answered
Chosen Option : 4

Q.95 In India, what is the maximum permissible value of super-elevation for broad gauge?

- Ans
- ☐ 1. 90 mm
 - ☐ 2. 150 mm
 - ☐ 3. 80 mm
 - ☒ 4. 165 mm

Question ID : 630680517926
Option 1 ID : 6306802024100
Option 2 ID : 6306802024103
Option 3 ID : 6306802024102
Option 4 ID : 6306802024101
Status : Answered
Chosen Option : 4

Q.96 Which of the following lines represent centre of a circular object or centre lines of symmetrical parts or conical objects?

- Ans
- ☐ 1. Long break line
 - ☐ 2. Hidden line
 - ☐ 3. Cutting plane line
 - ☒ 4. Locus line

Question ID : 630680517933
Option 1 ID : 6306802024131
Option 2 ID : 6306802024129
Option 3 ID : 6306802024130
Option 4 ID : 6306802024128
Status : Answered
Chosen Option : 3