

Junior Engineer Civil Mechanical and Electrical 2018 Paper I

Roll No.	
Registration No.	
Name	
Test Venue	
Test Time	10:00 AM - 12:00 PM
Test Date	23/09/2019
Subject	Junior Engineer 2018 Civil

Section : General Intelligence and Reasoning

- Q.1 A + B means 'A is brother of B'
 A - B means 'A is daughter of B'
 A × B means 'A is sister of B'
 A ÷ B means 'A is mother of B'

If $X + Y \div Z \times V - U$, then how is Y related to U?

- Ans ☒ 1. Daughter
☒ 2. Sister
☒ 3. Wife
☒ 4. Mother

Question ID : 2390877674

Status : Answered

Chosen Option : 3

- Q.2 Select the number that can replace the question mark (?) in the following series.

12, 15, 19, 24, 30, ?

- Ans ☒ 1. 36
☒ 2. 35
☒ 3. 34
☒ 4. 37

Question ID : 2390877677

Status : Answered

Chosen Option : 4

- Q.3 Arrange the following words in the order in which they appear in an English dictionary.

1. Scolding
2. Scenery
3. School
4. Scheme
5. Science

- Ans ☒ 1. 2, 4, 3, 5, 1
☒ 2. 2, 4, 3, 1, 5
☒ 3. 3, 2, 5, 4, 1
☒ 4. 2, 3, 4, 5, 1

Question ID : 2390877655

Status : Answered

Chosen Option : 1

Q.4 Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.

POSTCARD : DRACTSOP :: VALIDITY : ?

- Ans
- ☒ 1. AVILIDYT
 - ☒ 2. YTIDVALI
 - ☒ 3. YTIDILAV
 - ☒ 4. YTIDIALV

Question ID : 2390877662

Status : Answered

Chosen Option : 3

Q.5 Select the number that can replace the question mark (?) in the following series.

37, 39, 42, 47, 54, 65, ?

- Ans
- ☒ 1. 77
 - ☒ 2. 79
 - ☒ 3. 78
 - ☒ 4. 76

Question ID : 2390877678

Status : Answered

Chosen Option : 3

Q.6 Vikrant is son of Kunjan. Suman is daughter of Rama. Balram is Vikrant's son. Lilavati's only son is married to Rama. Balram is brother of Suman. How is Kunjan related to Lilavati?

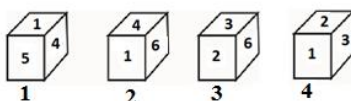
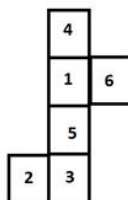
- Ans
- ☒ 1. Son
 - ☒ 2. Husband
 - ☒ 3. Uncle
 - ☒ 4. Brother

Question ID : 2390877673

Status : Answered

Chosen Option : 2

Q.7 Which of the following patterns of the dice can be formed when the sheet given below is folded?



- Ans
- ☒ 1. Only 1, 2 and 4

☒ 2. Both 3 and 4

☒ 3. Only 2

☒ 4. Both 2 and 3

Question ID : 2390877689

Status : Not Answered

Chosen Option : --

Q.8 In a certain code language, MAGIC is written as OCIKE. How will SPOON be written in that language?

Ans ☒ 1. VRNNP

☒ 2. URQQP

☒ 3. USQQP

☒ 4. VSRRO

Question ID : 2390877666

Status : Answered

Chosen Option : 2

Q.9 Select the letter that can replace the question mark (?) in the following series.

LGKR, OCOO, RYSL, ?

Ans ☒ 1. UVWI

☒ 2. TVVK

☒ 3. TUWJ

☒ 4. UUWI

Question ID : 2390877651

Status : Answered

Chosen Option : 4

Q.10 Select the option in which the given figure X is embedded/hidden. (Rotation is not allowed)

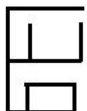
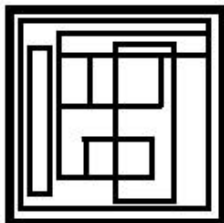


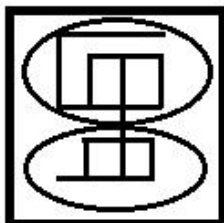
Figure X

Ans

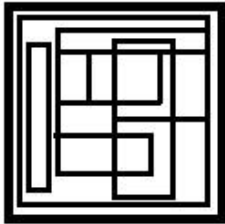
☒ 1.



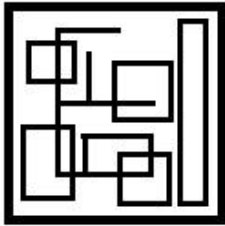
☒ 2.



✗ 3.



✗ 4.



Question ID : 2390877690

Status : Answered

Chosen Option : 1

Q.11 Kamini walks 30 m toward south from her home. Then she turns left and walks 40 m. She again turns left and walks 60 m to reach a book store. What is the shortest distance between her home and the book store?

Ans ✓ 1. 50 m

✗ 2. 60 m

✗ 3. 40 m

✗ 4. 80 m

Question ID : 2390877671

Status : Answered

Chosen Option : 1

Q.12 Select the letter-cluster that can replace the question mark (?) in the following series.

DXTU, HXXU, LXBW, ?

Ans ✗ 1. OXFU

✗ 2. PYFU

✓ 3. PXFU

✗ 4. PBFY

Question ID : 2390877650

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.13 Select the option in which the given figure X is embedded/hidden. (Rotation is not allowed)



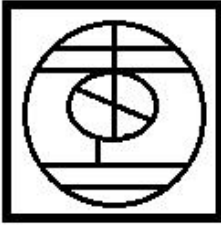
Figure X

Ans

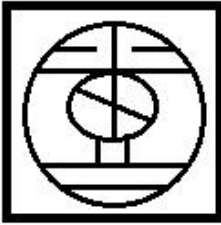
✗ 1.



✗ 2.



✗ 3.



✓ 4.



Question ID : 2390877691

Status : Answered

Chosen Option : 4

Q.14 Select the word-pair in which the two words are related in the same way as are the two words in the given pair.

Rupee : Dollar

Ans

✗ 1. Iraq : Dinar

✗ 2. Lira : Turkey

✓ 3. Dirham : Pound

✗ 4. Yuan : Chile

Question ID : 2390877661

Status : Answered

Chosen Option : 3

Q.15 Select the correct alternative that indicates the arrangement of the following physical locations in a logical and meaningful order.

1. State
2. Village
3. Tehsil
4. District
5. Country

Ans

✓ 1. 2, 3, 4, 1, 5

✗ 2. 2, 3, 1, 5, 4

☐ 3. 3, 2, 4, 1, 5

☐ 4. 3, 2, 5, 1, 4

Question ID : 2390877653

Status : Answered

Chosen Option : 1

Q.16 Eight friends P, Q, R, S, T, U, V and W are sitting counter-clockwise around a circular table in the same sequence at equal distances from each other. If Q is sitting in the North-east direction, then in which direction is V sitting?

Ans ☐ 1. South-west

☐ 2. South-east

☒ 3. South

☐ 4. North

Question ID : 2390877675

Status : Answered

Chosen Option : 3

Q.17 If 'A' stands for 'division', B stands for 'multiplication', C stands for 'subtraction' and D stands for 'addition', then what is the value of the following equation?

$$68 D 189 A 9 B 4 C 88 = ?$$

Ans ☐ 1. 68

☒ 2. 64

☐ 3. 54

☐ 4. 49

Question ID : 2390877685

Status : Answered

Chosen Option : 1

Q.18 In a certain code language, CANADA is written as DZOZEZ. How will EUROPE be written in that language?

Ans ☐ 1. CTSMOP

☐ 2. CTSMQF

☒ 3. DTSNQD

☐ 4. DTTNQD

Question ID : 2390877665

Status : Answered

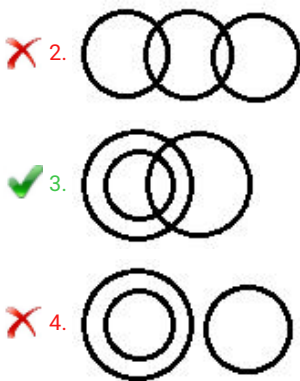
Chosen Option : 3

Q.19 Select the Venn diagram that best represents the relationship between the given set of classes.

Musicians, Males, Fathers

Ans





Question ID : 2390877695

Status : Answered

Chosen Option : 3

Q.20 Select the option in which the numbers are related in the same way as are the numbers in the given set.

8 : 88 : 96

- Ans  1. 9 : 99 : 118
-  2. 7 : 77 : 121
-  3. 12 : 144 : 173
-  4. 11 : 121 : 132

Question ID : 2390877683

Status : Answered

Chosen Option : 4

Q.21 Arrange the following words in the order in which they appear in an English dictionary.

1. Casual
2. Causal
3. Case
4. Casting
5. Castle

- Ans  1. 3, 4, 5, 1, 2
-  2. 3, 5, 4, 1, 2
-  3. 3, 4, 5, 2, 1
-  4. 4, 3, 1, 2, 5

Question ID : 2390877654

Status : Answered

Chosen Option : 1

Q.22 Select the number that can replace the question mark (?) in the following series.

75, 102, 135, 175, ?

- Ans  1. 227
-  2. 225
-  3. 223
-  4. 221

Question ID : 2390877679

Status : **Answered**
Chosen Option : 3

Q.23 Select the word-pair in which the two words are related in the same way as are the two words in the given pair.

Nervous : Anxious

- Ans
- ☒ 1. Tall : Timid
 - ☒ 2. Rich : Wealthy
 - ☒ 3. Property : Furniture
 - ☒ 4. Rude : Sweet

Question ID : 2390877659
Status : **Answered**
Chosen Option : 2

Q.24 Select the option that is embedded/hidden in the given figure. (Rotation is not allowed)



Ans

- ☒ 1.
- ☒ 2.
- ☒ 3.
- ☒ 4.

Question ID : 2390877692
Status : **Answered**
Chosen Option : 3

Q.25 Select the correct option that indicates the arrangement of the following situations in a logical and meaningful order.

1. Birth of child
2. School admission
3. College admission
4. Employment
5. Naming the child

- Ans
- ☒ 1. 1, 5, 2, 3, 4
 - ☒ 2. 2, 4, 1, 5, 3
 - ☒ 3. 1, 3, 2, 4, 5
 - ☒ 4. 5, 1, 3, 2, 4

Question ID : 2390877652

Status : Answered

Chosen Option : 1

Q.26 Which two signs and two numbers should be interchanged to make the given equation correct?

$$21 - 14 \times 5 + 27 \div 3 = 90$$

- Ans
- ☒ 1. 3 and 5, $\div$ and $\times$
 - ☒ 2. 14 and 5, + and $\times$
 - ☒ 3. 21 and 14, + and $\div$
 - ☒ 4. 21 and 27, + and $-$

Question ID : 2390877686

Status : Answered

Chosen Option : 4

Q.27 A total amount of ₹2,40,000 is to be distributed between Ranjit, Vikas and Abdul in such a way that Ranjit gets three times the amount that Vikas gets. Abdul gets ₹40,000 less than Ranjit. How much money does Abdul get?

- Ans
- ☒ 1. ₹40,000
 - ☒ 2. ₹80,000
 - ☒ 3. ₹1,00,000
 - ☒ 4. ₹60,000

Question ID : 2390877687

Status : Answered

Chosen Option : 2

Q.28 Six friends A, B, C, D, E and F are sitting in a straight line facing north but not necessarily in the same sequence. C is sitting to the immediate left of B. D is sitting between A and C. F is between B and E. Which two persons are sitting at the corners?

- Ans
- ☒ 1. A and F
 - ☒ 2. B and E
 - ☒ 3. A and E
 - ☒ 4. C and E

Question ID : 2390877676

Status : Answered

Chosen Option : 3

Q.29 Select the option that is related to the third number in the same way as the second number is related to the first number.

$$7 : 147 :: 9 : ?$$

- Ans
- ☒ 1. 242
 - ☒ 2. 240
 - ☒ 3. 241
 - ☒ 4. 243

Question ID : 2390877682

Status : Answered

Chosen Option : 4

Q.30 Vinod and Arpit are sitting facing each other at the time of sunrise. If Vinod's shadow falls to the right of Arpit, in which direction is Arpit facing?

- Ans ☒ 1. South
☐ 2. East
☐ 3. West
☐ 4. North

Question ID : 2390877672

Status : Answered

Chosen Option : 4

Q.31 Study the given pattern carefully and select the number that can replace the question mark (?) in it.

12 14 26

18 46 48

15 30 ?

- Ans ☐ 1. 38
☐ 2. 45
☒ 3. 37
☐ 4. 39

Question ID : 2390877684

Status : Answered

Chosen Option : 3

Q.32 In a certain code language, TRUCK = 365 and FOG = 84. How will DART be coded as in that language?

- Ans ☐ 1. 174
☒ 2. 172
☐ 3. 170
☐ 4. 176

Question ID : 2390877668

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.33 Select the option that is related to the third number in the same way as the second number is related to the first number.

5 : 130 :: 8 : ?

- Ans ☐ 1. 410
☐ 2. 120
☐ 3. 240
☒ 4. 520

Question ID : 2390877681

Status : Answered

Chosen Option : 4

Q.34 Select the option that is related to the third term in the same way as the second term is related to the first term.

Doctor : Treatment :: Actor : ?

- Ans ☒ 1. Entertainment
☐ 2. Film
☐ 3. Television
☐ 4. Attention

Question ID : 2390877658
Status : Answered
Chosen Option : 1

Q.35 In a certain code language, MARKER is coded as 1311811518. How will DOCILE be coded in that language?

- Ans ☐ 1. 21539115
☐ 2. 41638125
☐ 3. 21639115
☒ 4. 41539125

Question ID : 2390877667
Status : Answered
Chosen Option : 4

Q.36 Select the letter that can replace the question mark (?) in the following series.

P, U, Z, E, ?

- Ans ☐ 1. I
☐ 2. L
☒ 3. J
☐ 4. K

Question ID : 2390877647
Status : Answered
Chosen Option : 3

Q.37 Select the letter-cluster which is INCORRECT in the following series.

PZN, SCQ, VFT, YIW, BLA

- Ans ☐ 1. PZN
☒ 2. BLA
☐ 3. YIW
☐ 4. VFT

Question ID : 2390877649
Status : Answered
Chosen Option : 2

Q.38 Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.

ABODE : FEPCB :: CAUSE : ?

- Ans ☐ 1. FTTBB

☒ 2. DBVTF

☒ 3. FTVBD

☒ 4. FVTBC

Question ID : 2390877664

Status : Answered

Chosen Option : 3

Q.39 Select the number-pair in which the two numbers are related in the same way as are the two numbers in the given number-pair.

16 : 128

Ans ☒ 1. 22 : 232

☒ 2. 28 : 390

☒ 3. 12 : 112

☒ 4. 20 : 200

Question ID : 2390877680

Status : Answered

Chosen Option : 4

Q.40 Select the option that is related to the third term in the same way as the second term is related to the first term.

Sweet : Bitter :: Interesting : ?

Ans ☒ 1. Unusual

☒ 2. Book

☒ 3. Story

☒ 4. Boring

Question ID : 2390877656

Status : Answered

Chosen Option : 4

Q.41 Two statements are given followed by three conclusions numbered I, II and III. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

1. Some red are black.

2. Some black are yellow.

Conclusions:

I. Some red are yellow.

II. No yellow is black.

III. No red is yellow.

Ans ☒ 1. Both conclusions I and II follow.

☒ 2. Either conclusion I or II follows.

☒ 3. Both conclusions I and III follow.

☒ 4. Either conclusion I or III follows.

Question ID : 2390877670

Status : Answered

Chosen Option : 4

Q.42 Select the correct mirror image of the given letter-number cluster when the mirror is placed to its right side.

Y N B G 5

Ans

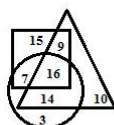
- ✓ 1. **Y N B G 2**
- ✗ 2. **Y N B G 5**
- ✗ 3. **Y N B G 5**
- ✗ 4. **Y N B G 2**

Question ID : **2390877693**

Status : **Answered**

Chosen Option : **1**

Q.43 In the Venn diagram given below, the 'Circle' represents 'workers'; the 'Triangle' represents 'males' and the 'Square' represents 'Performers'. The numbers given in the diagram represent the number of persons of that particular category.



How many male workers are performers?

Ans

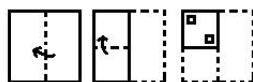
- ✗ 1. **15**
- ✓ 2. **16**
- ✗ 3. **10**
- ✗ 4. **14**

Question ID : **2390877696**

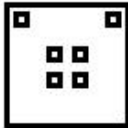
Status : **Answered**

Chosen Option : **2**

Q.44 The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded?



Ans

- ✗ 1. 
- ✗ 2. 
- ✗ 3. 
- ✓ 4. 

Question ID : 2390877694

Status : **Not Answered**

Chosen Option : --

Q.45 Select the word-pair in which the two words are related in the same way as are the two words in the given pair.

Libya : Africa

- Ans
- ☒ 1. Canada : Russia
 - ☒ 2. Maldives : Asia
 - ☒ 3. France : South America
 - ☒ 4. Denmark : Copenhagen

Question ID : 2390877660

Status : **Answered**

Chosen Option : 2

Q.46 In a class of 56 students, 18 students do not play any game, 27 play hockey and 29 play volleyball. How many students play hockey and volleyball both?

- Ans
- ☒ 1. 19
 - ☒ 2. 11
 - ☒ 3. 9
 - ☒ 4. 18

Question ID : 2390877688

Status : **Not Answered**

Chosen Option : --

Q.47 Select the option that is related to the third term in the same way as the second term is related to the first term.

Pneumonia : Lungs :: Asthma : ?

- Ans
- ☒ 1. Kidney
 - ☒ 2. Spinal cord
 - ☒ 3. Liver
 - ☒ 4. Respiratory tract

Question ID : 2390877657

Status : **Answered**

Chosen Option : 4

Q.48 Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.

UKHA : SMFC :: TJRO : ?

- Ans
- ☒ 1. RLPQ
 - ☒ 2. WLTR
 - ☒ 3. RLTV
 - ☒ 4. SLTV

Question ID : 2390877663

Status : **Answered**

Chosen Option : 1

Q.49 Two statements are given followed by three conclusions numbered I, II and III. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

1. All cups are plates.
2. Some cups are spoons.

Conclusions:

- I. Some plates are spoons.
- II. Some plates are cups.
- III. All plates are spoons.

- Ans**
- ☒ 1. Both conclusions I and III follow.
 - ☒ 2. Both conclusions II and III follow.
 - ☒ 3. Both conclusions I and II follow.
 - ☒ 4. All conclusions follow.

Question ID : 2390877669

Status : Not Answered

Chosen Option : --

Q.50 Select the letter that can replace the question mark (?) in the following series.

P, J, ?, A, X, V

- Ans**
- ☒ 1. G
 - ☒ 2. F
 - ☒ 3. H
 - ☒ 4. E

Question ID : 2390877648

Status : Answered

Chosen Option : 4

Section : General Awareness

Q.1 The emergency number for immediate assistance in case of distress operational as of April 2019 in 20 states and union territories in India is ____.

- Ans**
- ☒ 1. 105
 - ☒ 2. 1098
 - ☒ 3. 200
 - ☒ 4. 112

Question ID : 2390877600

Status : Answered

Chosen Option : 4

Q.2 Which article of the Constitution of India empowers a state government to promulgate an ordinance?

- Ans**
- ☒ 1. Article 166
 - ☒ 2. Article 251
 - ☒ 3. Article 100

 4. Article 213

Question ID : 2390877643

Status : **Not Answered**

Chosen Option : --

Q.3 'Angstrom' is a unit of measurement of _____.

Ans  1. density 2. height 3. time 4. length

Question ID : 2390877608

Status : **Answered**

Chosen Option : 4

Q.4 Who is the author of the book 'My Seditious Heart'?

Ans  1. Salman Rushdie 2. Amitav Ghosh 3. Arundhati Roy 4. Chetan Bhagat

Question ID : 2390877639

Status : **Answered**

Chosen Option : 3

Q.5 What purpose does the ultraviolet (UV) treatment of water serve?

Ans  1. It removes strong odour. 2. It adds nutrients. 3. It inactivates bacteria. 4. It improves clarity of water.

Question ID : 2390877609

Status : **Answered**

Chosen Option : 3

Q.6 Who was the founder of the Shunga dynasty?

Ans  1. Brihadratha 2. Jayadratha 3. Pushyamitra 4. Kunal

Question ID : 2390877633

Status : **Not Answered**

Chosen Option : --

Q.7 One of the most commonly used methods for reduction of metal oxides into metals is _____.

Ans  1. Magnetic Separation

- ☒ 2. heating
- ☐ 3. cooling
- ☐ 4. Hydraulic Washing

Question ID : 2390877616

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

Chosen Option : --

Q.8 In January 2019, a ₹350 commemorative coin was issued to mark the birth anniversary of:

- Ans
- ☐ 1. Guru Hargobind
 - ☐ 2. Guru Arjan Dev
 - ☐ 3. Guru Har Rai
 - ☒ 4. Guru Gobind Singh

Question ID : 2390877603

Status : **Answered**

Chosen Option : 4

Q.9 Abul Fazal, a scholar during the medieval period in India, was in the court of:

- Ans
- ☐ 1. Shahjahan
 - ☐ 2. Aurangzeb
 - ☐ 3. Babar
 - ☒ 4. Akbar

Question ID : 2390877635

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

Chosen Option : --

Q.10 In May 2019, India's first 'tree ambulance' was launched in _____.

- Ans
- ☒ 1. Chennai
 - ☐ 2. Hyderabad
 - ☐ 3. Bengaluru
 - ☐ 4. Bhopal

Question ID : 2390877599

Status : **Not Answered**

Chosen Option : --

Q.11 A document which contains data and information arranged in rows and columns with the facility of applying mathematical formulas is known as a/an:

- Ans
- ☐ 1. mathsheet
 - ☐ 2. taskmaster
 - ☒ 3. spreadsheet
 - ☐ 4. accountsheet

Question ID : 2390877598

Status : **Answered**

Chosen Option : 3

Q.12 In India, which of the following rivers of the Indus River system is well known as the habitat of Dolphins?

- Ans
- ☐ 1. Chenab
 - ☐ 2. Indus
 - ☒ 3. Beas
 - ☐ 4. Sutlej

Question ID : 2390877629

Status : Not Answered

Chosen Option : --

Q.13 In February 2019, _____ launched a programme named 'Going Online As Leaders' (GOAL), a digital skilling initiative to train tribal girls from five Indian states.

- Ans
- ☐ 1. Huawei
 - ☐ 2. Microsoft
 - ☐ 3. Google
 - ☒ 4. Facebook

Question ID : 2390877604

Status : Not Answered

Chosen Option : --

Q.14 The average length of a solar cycle is :

- Ans
- ☐ 1. 5 years
 - ☐ 2. 7 years
 - ☒ 3. 11 years
 - ☐ 4. 9 years

Question ID : 2390877621

Status : Answered

Chosen Option : 3

Q.15 In the context of Mughal administration, the term 'zabt' referred to the _____ system.

- Ans
- ☐ 1. judicial
 - ☒ 2. revenue
 - ☐ 3. police
 - ☐ 4. military

Question ID : 2390877637

Status : Answered

Chosen Option : 2

Q.16 'Palaeontology' is the discipline which deals with the study of:

- Ans
- ☐ 1. interior of earth
 - ☐ 2. history of the changing course of rivers
 - ☐ 3. the antiquity of rocks
 - ☒ 4. the history of life on Earth as based on fossils

Question ID : 2390877618

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

Chosen Option : --

Q.17 Kanshi Ram was the founder of ____ political party.

- Ans ☒ 1. Bahujan Samaj Party
☐ 2. Samajwadi Party
☐ 3. Lok Bhalai Party
☐ 4. Bahujan Shanti Munch party

Question ID : 2390877644

Status : **Not Answered**

Chosen Option : --

Q.18 Fe_2O_3 is the chemical formula of an iron ore called:

- Ans ☐ 1. Magnetite
☐ 2. Iron Pyrite
☐ 3. Limonite
☒ 4. Hematite

Question ID : 2390877615

Status : **Answered**

Chosen Option : 4

Q.19 One Astronomical Unit (AU) represents the mean distance between:

- Ans ☐ 1. Earth and Moon
☐ 2. Sun and Mercury
☒ 3. Earth and Sun
☐ 4. Moon and Sun

Question ID : 2390877611

Status : **Answered**

Chosen Option : 3

Q.20 The basic structural and functional unit of the human kidney is ____.

- Ans ☐ 1. Glomerulus
☐ 2. Bowman's capsule
☐ 3. Alveoli
☒ 4. Nephron

Question ID : 2390877613

Status : **Answered**

Chosen Option : 4

Q.21 Which of the following ports is located on the eastern coast of India?

- Ans ☐ 1. Murmagoa
☐ 2. Kochi
☒ 3. Kamarajar

 4. Nhava Sheva

Question ID : 2390877630
Status : **Answered**
Chosen Option : 2

Q.22 'Polavaram Irrigation Project' is being constructed on:

- Ans
-  1. Kaveri river
 -  2. Krishna river
 -  3. Mahanadi river
 -  4. Godavari river

Question ID : 2390877628
Status : **Not Attempted and Marked For Review**
Chosen Option : --

Q.23 The ancient Indian text 'Rajatarangini' is a composition by:

- Ans
-  1. Bilhana
 -  2. Kalhana
 -  3. Banabhatta
 -  4. Sandhyakar Nandi

Question ID : 2390877634
Status : **Not Answered**
Chosen Option : --

Q.24 In which year did the Indian merchants and industrialists form the Federation of the Indian Chamber of Commerce and Industries (FICCI)?

- Ans
-  1. 1947
 -  2. 1920
 -  3. 1927
 -  4. 1951

Question ID : 2390877606
Status : **Not Answered**
Chosen Option : --

Q.25 In July 2019, Carnatic vocalist _____ won the '2019 Sangita Kalanidhi' award of the Music Academy.

- Ans
-  1. S Ramanathan
 -  2. MS Sheela
 -  3. T Mukta
 -  4. S Sowmya

Question ID : 2390877638
Status : **Not Answered**
Chosen Option : --

Q.26 In April 2019, archaeologists unearthed a life-sized stucco sculpture from a Buddhist site called Phanigiri in _____.

- Ans
- ☒ 1. Odisha
 - ☒ 2. Telangana
 - ☒ 3. Andhra Pradesh
 - ☒ 4. Tamil Nadu

Question ID : 2390877601
Status : Answered
Chosen Option : 1

Q.27 Which of the following is a principal male sex hormone?

- Ans
- ☒ 1. Testosterone
 - ☒ 2. FSH
 - ☒ 3. Progesterone
 - ☒ 4. Prolactin

Question ID : 2390877620
Status : Answered
Chosen Option : 1

Q.28 'Blue bonds' is the term used for bonds whose proceeds are meant for:

- Ans
- ☒ 1. pollution-related environmental projects
 - ☒ 2. constructing small dams
 - ☒ 3. marine-related environmental projects
 - ☒ 4. protecting glaciers

Question ID : 2390877607
Status : Not Answered
Chosen Option : --

Q.29 Which of the following is NOT included in the Directive Principles of State Policy of the Constitution of India?

- Ans
- ☒ 1. Equal pay for equal work
 - ☒ 2. Equal justice and free legal aid
 - ☒ 3. Organisation of village panchayats
 - ☒ 4. Right to information

Question ID : 2390877642
Status : Answered
Chosen Option : 1

Q.30 Which of the following acronyms represents India's national level programme to promote hybrid and electric vehicles?

- Ans
- ☒ 1. UDAAN
 - ☒ 2. BREATHE
 - ☒ 3. FAME
 - ☒ 4. HAEV

Question ID : 2390877602
Status : Not Attempted and

Marked For Review

Chosen Option : --

Q.31 As per the Constitution of India, the term of the members of 'Council of States' is for:

- Ans
- ☒ 1. 3 years
 - ☒ 2. 5 years
 - ☒ 3. 6 years
 - ☒ 4. 4 years

Question ID : 2390877641

Status : Answered

Chosen Option : 3

Q.32 Indian hockey team captain _____ was also a member of the Constituent Assembly of India.

- Ans
- ☒ 1. Jaipal Singh Munda
 - ☒ 2. Sardar Singh
 - ☒ 3. Dhyan Chand
 - ☒ 4. Balbir Singh Sr.

Question ID : 2390877646

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.33 Which of the following programmes/software is NOT used for creating a word document?

- Ans
- ☒ 1. Microsoft Word
 - ☒ 2. WordPad
 - ☒ 3. Notepad
 - ☒ 4. Adobe Acrobat Reader

Question ID : 2390877597

Status : Answered

Chosen Option : 3

Q.34 Dinosaurs went extinct about 65 million years ago at the end of the _____ period.

- Ans
- ☒ 1. Jurassic
 - ☒ 2. Permian
 - ☒ 3. Triassic
 - ☒ 4. Cretaceous

Question ID : 2390877614

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.35 'Kyoto Protocol' is related to the convention on:

- Ans
- ☒ 1. banning nuclear tests
 - ☒ 2. climate change
 - ☒ 3. tax havens

☒ 4. cross-border terrorism

Question ID : 2390877626
Status : Answered
Chosen Option : 2

Q.36 Which of the following phenomenon is responsible for Coriolis force?

- Ans ☒ 1. Rotation of the earth around its axis
☒ 2. Gravitational pull from the moon
☒ 3. Differential heating of oceanic water
☒ 4. Revolution of earth around the sun

Question ID : 2390877632
Status : Not Attempted and Marked For Review
Chosen Option : --

Q.37 In a nuclear reactor, what role does the moderator play?

- Ans ☒ 1. It acts like a catalyst in the reaction.
☒ 2. It is used to halt the reaction.
☒ 3. It starts the process of nuclear fission.
☒ 4. It slows down the neutrons released from fission.

Question ID : 2390877624
Status : Answered
Chosen Option : 4

Q.38 Which of the following materials is commonly used to prepare a non-stick surface?

- Ans ☒ 1. Polystyrene
☒ 2. Teflon
☒ 3. Latex
☒ 4. Terylene

Question ID : 2390877623
Status : Not Attempted and Marked For Review
Chosen Option : --

Q.39 In July 2019, Sachin Tendulkar was inducted into the ICC Cricket Hall of Fame. He is the _____ Indian cricketer to receive this honour.

- Ans ☒ 1. 6th
☒ 2. 5th
☒ 3. 7th
☒ 4. 8th

Question ID : 2390877645
Status : Not Answered
Chosen Option : --

Q.40 Organisms known as 'Benthos' are commonly found:

Ans

- ✓ 1. at sea floors
- ✗ 2. in the upper layers of an ocean
- ✗ 3. at beaches
- ✗ 4. in frozen lakes

Question ID : 2390877625
Status : Answered
Chosen Option : 1

Q.41 Which of the following planets is also known as a 'gas giant'?

- Ans ✗ 1. Mars
- ✓ 2. Jupiter
- ✗ 3. Mercury
- ✗ 4. Venus

Question ID : 2390877610
Status : Answered
Chosen Option : 2

Q.42 Which of the following substances is commonly used in some countries to artificially ripen fruits?

- Ans ✗ 1. Iodine
- ✗ 2. Aluminium carbide
- ✗ 3. Iron carbide
- ✓ 4. Calcium carbide

Question ID : 2390877622
Status : Answered
Chosen Option : 4

Q.43 Which of the following lakes was formed as a result of a meteor crashing into Earth during the Pleistocene Epoch?

- Ans ✗ 1. Wular Lake
- ✗ 2. Naini Lake
- ✗ 3. Sambar Lake
- ✓ 4. Lonar Lake

Question ID : 2390877627
Status : Answered
Chosen Option : 1

Q.44 Under which schedule of the Constitution of India is the list of official languages found?

- Ans ✗ 1. 6th
- ✗ 2. 7th
- ✗ 3. 9th
- ✓ 4. 8th

Question ID : 2390877640
Status : Not Answered

Chosen Option : --

Q.45 According to Geological Survey of India (GSI), the state with highest graphite deposits in India is ____.

- Ans
- ☒ 1. Maharashtra
 - ☒ 2. Arunachal Pradesh
 - ☒ 3. Tamil Nadu
 - ☒ 4. Punjab

Question ID : 2390877631

Status : Answered

Chosen Option : 2

Q.46 Who among the following is credited with translating the 'Upanishad' from Sanskrit to Persian?

- Ans
- ☒ 1. Ziyauddin Barani
 - ☒ 2. Abul Fazal
 - ☒ 3. Dara Shikoh
 - ☒ 4. Shah Jahan

Question ID : 2390877636

Status : Answered

Chosen Option : 2

Q.47 'Parsec' is a unit of measurement of ____.

- Ans
- ☒ 1. mass
 - ☒ 2. length
 - ☒ 3. density
 - ☒ 4. volume

Question ID : 2390877619

Status : Answered

Chosen Option : 2

Q.48 Group 15 of the periodic table is also known as:

- Ans
- ☒ 1. Tetrel group
 - ☒ 2. Halogen group
 - ☒ 3. Pnictogen group
 - ☒ 4. Chalcogen group

Question ID : 2390877612

Status : Answered

Chosen Option : 2

Q.49 Which of the following options represent the correct ascending order of the planets in our Solar system on the basis of their density?

- Ans
- ☒ 1. Neptune, Uranus, Mars
 - ☒ 2. Jupiter, Neptune, Uranus
 - ☒ 3. Uranus, Jupiter, Neptune

☒ 4. Jupiter, Uranus, Neptune

Question ID : 2390877617
Status : Answered
Chosen Option : 1

Q.50 Which of the following countries is ranked highest in Human Development Index as per 2018 statistics?

- Ans
- ☒ 1. Myanmar
 - ☒ 2. Sri Lanka
 - ☒ 3. India
 - ☒ 4. Bhutan

Question ID : 2390877605
Status : Answered
Chosen Option : 4

Section : Part A General Engineering Civil and Structural

Q.1 On a rough terrain, what is the achievable accuracy of a chain under conducive conditions?

- Ans
- ☒ 1. 1 in 500
 - ☒ 2. 1 in 2000
 - ☒ 3. 1 in 1000
 - ☒ 4. 1 in 250

Question ID : 2390877563
Status : Not Answered
Chosen Option : --

Q.2 According to IS 456:2000, what should be the nominal cover to reinforcement for footings?

- Ans
- ☒ 1. 50 mm
 - ☒ 2. 20 mm
 - ☒ 3. 30 mm
 - ☒ 4. 45 mm

Question ID : 2390877547
Status : Answered
Chosen Option : 1

Q.3 Identify the correct statement pertaining to Bligh's creep theory used in the design of impervious floor for structures found on pervious soils.

- Ans
- ☒ 1. Head loss is directly proportional to the square root of creep length
 - ☒ 2. Head loss is inversely proportional to the square root of creep length
 - ☒ 3. Head loss is inversely proportional to creep length
 - ☒ 4. Head loss is directly proportional to creep length

Question ID : 2390877521

Status : **Answered**
Chosen Option : 1

Q.4 How can we control waterlogging in agricultural land?

- Ans
- ☒ 1. By lining of canals
 - ☐ 2. By closing the nearby natural drains
 - ☐ 3. By avoiding crop rotation
 - ☐ 4. By increasing the intensity of irrigation

Question ID : 2390877523
Status : **Answered**
Chosen Option : 1

Q.5 According to WHO, what is the permissible chloride content in drinking water?

- Ans
- ☐ 1. 0.001 mg/l
 - ☐ 2. 1 mg/l
 - ☒ 3. 200 mg/l
 - ☐ 4. 350 mg/l

Question ID : 2390877509
Status : **Not Attempted and Marked For Review**
Chosen Option : --

Q.6 The water content at which soil changes from a liquid state to a plastic state is known as:

- Ans
- ☐ 1. shrinkage limit
 - ☐ 2. consistency limit
 - ☒ 3. liquid limit
 - ☐ 4. plastic limit

Question ID : 2390877584
Status : **Answered**
Chosen Option : 4

Q.7 The type of cement used in lining of deep tube wells is:

- Ans
- ☐ 1. Blast furnace slag cement
 - ☐ 2. High alumina cement
 - ☐ 3. Oil well cement
 - ☒ 4. Portland pozzolana cement

Question ID : 2390877539
Status : **Not Answered**
Chosen Option : --

Q.8 A portion of the roadway, contiguous with the travelled way and is intended for accommodation of stopped vehicle is called as

- Ans**
- ☒ 1. Shoulder
 - ☐ 2. Carriageway width
 - ☐ 3. Median
 - ☐ 4. Curbs

Question ID : **2390877594**
Status : **Answered**
Chosen Option : **2**

Q.9 What is the percentage of sulphur trioxide in ordinary Portland cement?

- Ans**
- ☐ 1. 60% to 65%
 - ☐ 2. 17% to 25%
 - ☐ 3. 3.5% to 9%
 - ☒ 4. 1% to 2%

Question ID : **2390877536**
Status : **Answered**
Chosen Option : **4**

Q.10 Which of the following is a type of lease where the duration of the lease for a property is given until the death of a person?

- Ans**
- ☐ 1. Perpetual lease
 - ☐ 2. Sub lease
 - ☒ 3. Life lease
 - ☐ 4. Freehold

Question ID : **2390877574**
Status : **Not Answered**
Chosen Option : **--**

Q.11 According to Building Bye-laws, what is a building called when the outer face of any of its walls is on the street boundary?

- Ans**
- ☐ 1. Balcony
 - ☒ 2. Abut
 - ☐ 3. Barsati
 - ☐ 4. Cabin

Question ID : **2390877569**
Status : **Not Attempted and Marked For Review**
Chosen Option : **--**

Q.12 Lean concrete base is an example for _____

- Ans**
- ☐ 1. Composite pavement
 - ☐ 2. Flexible pavement

- ☒ 3. Rigid pavement
- ☐ 4. Semi-rigid pavement

Question ID : 2390877596
Status : Not Answered
Chosen Option : --

Q.13 Which of the following statements is correct in the case of the seismic method of site investigation?

Ans ☐ 1.

If an area contains underground features such as an irregular water table, the interpretation of the results becomes very difficult.

☐ 2.

The method can be used if a hard layer with a greater seismic velocity overlies a softer layer with a smaller seismic velocity.

☐ 3.

The method can be used for the areas covered by concrete or asphalt pavement having a high seismic velocity.

☒ 4.

If the surface layer is frozen, then the method cannot be used.

Question ID : 2390877587
Status : Not Answered
Chosen Option : --

Q.14 Poisson's ratio of rubber lies between:

Ans ☐ 1. 0.25 and 0.33

☐ 2. 0.08 and 0.18

☒ 3. 0.45 and 0.50

☐ 4. 0.23 and 0.27

Question ID : 2390877582
Status : Answered
Chosen Option : 1

Q.15 A saturated soil sample has a dry unit weight of 18000 N/m^3 and specific gravity 2.65. If unit weight of water is 9810 N/m^3 , determine the water content of the soil sample?

Ans ☐ 1. 0.25

☐ 2. 0.41

☐ 3. 0.34

☒ 4. 0.17

Question ID : 2390877589
Status : Not Answered
Chosen Option : --

Q.16 What is the Neutral axis depth for a singly reinforced beam from the top extreme fibre as per IS 456:2000?
(Where x_u = depth of neutral axis)

Ans ☒ 1. $0.42x_u$

☐ 2. $1.5x_u$

☐ 3. $0.002x_u$

☒ 4. $0.36f_{ck}$

Question ID : 2390877545

Status : Answered

Chosen Option : 4

Q.17 In a hydraulic jump, if the Froude number $F_1 = 4.5$ to 9.0 , then the jump is called a/an:

Ans

- ☒ 1. steady jump
☒ 2. undular jump
☒ 3. oscillating jump
☒ 4. weak jump

Question ID : 2390877527

Status : Answered

Chosen Option : 3

Q.18 Which of the following materials falls under the category of rigid materials when checking the dampness of a material?

Ans

- ☒ 1. Mastic asphalt
☒ 2. Cement concrete
☒ 3. Bitumen felts
☒ 4. Polythene sheets

Question ID : 2390877502

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.19 What is the formula to calculate floor area ratio (FAR)?

Ans

- ☒ 1. Total covered area/built up area
☒ 2. $(\text{total covered area} + \text{plot area})/(\text{plot area})$
☒ 3. $(\text{total covered area} \times \text{plot area})/(\text{plot area})$
☒ 4. total covered area/plot area

Question ID : 2390877568

Status : Answered

Chosen Option : 4

Q.20 Toughness Index of a soil is the ratio of:

Ans

- ☒ 1. Liquidity Index to Shrinkage Index
☒ 2. Liquidity Index to Consistency Index
☒ 3. Plasticity Index to Flow Index
☒ 4. Shrinkage Index to Liquidity Index

Question ID : 2390877588

Status : **Answered**
Chosen Option : **3**

Q.21 According to IS 456:2000, the maximum strain in concrete at the outermost compression fibre is taken as:

- Ans
- ☒ 1. 0.035 in bending
 - ☒ 2. 0.035 in shear
 - ☒ 3. 0.0035 in bending
 - ☒ 4. 0.0035 in shear

Question ID : **2390877544**Status : **Not Attempted and
Marked For Review**

Chosen Option : --

Q.22 A city has a population of 10,000 with an area of rapid filter as 20 m^2 and an average filtration rate of 4000 litres/hour/ m^2 of the area. What will be the rate of demand?

- Ans
- ☒ 1. 158 litres/head/day
 - ☒ 2. 128 litres/head/day
 - ☒ 3. 160 litres/head/day
 - ☒ 4. 145 litres/head/day

Question ID : **2390877516**Status : **Not Attempted and
Marked For Review**

Chosen Option : --

Q.23 When compared with open caissons, floating caissons generally _____.

- Ans
- ☒ 1. have a higher load-carrying capacity
 - ☒ 2. are less expensive
 - ☒ 3. have a slow and inconvenient installation
 - ☒ 4. have a greater depth below the ground surface

Question ID : **2390877586**Status : **Not Answered**

Chosen Option : --

Q.24 Adding extenders in paints increases its _____.

- Ans
- ☒ 1. pigment volume concentration
 - ☒ 2. durability
 - ☒ 3. adhesion
 - ☒ 4. washability

Question ID : **2390877500**Status : **Not Attempted and
Marked For Review**

Chosen Option : --

Q.25 Which of the following rivers in alluvial flood plains flows in two or more channels around alluvial islands?

- Ans
- ☐ 1. Flashy river
 - ☒ 2. Braided river
 - ☐ 3. Virgin river
 - ☐ 4. Tidal river

Question ID : 2390877524

Status : **Not Answered**

Chosen Option : --

Q.26 What is the content of carbon in pig iron?

- Ans
- ☐ 1. 0.002% to 0.1 %
 - ☒ 2. 3% to 4%
 - ☐ 3. 0.5% to 2.5%
 - ☐ 4. 5% to 8%

Question ID : 2390877497

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

Chosen Option : --

Q.27 What is the grade of timber as per timber grading (IS 6543), if the modulus of elasticity in bending is between 5.6 to 9.8 kN/mm²?

- Ans
- ☐ 1. Grade B
 - ☐ 2. Grade A
 - ☐ 3. Grade D
 - ☒ 4. Grade C

Question ID : 2390877504

Status : **Not Answered**

Chosen Option : --

Q.28 As per IS 800:2007, what should be the maximum slenderness ratio for the tension members in which reversal stress due to load other than wind or seismic forces occurs?

- Ans
- ☐ 1. 400
 - ☒ 2. 180
 - ☐ 3. 580
 - ☐ 4. 350

Question ID : 2390877551

Status : **Not Answered**

Chosen Option : --

Q.29 In surveying, which of the following instrument is used for indirect measurement?

- Ans
- ☐ 1. Pedometer
 - ☐ 2. Speedometer
 - ☒ 3. Metric chain

 4. Passometer

Question ID : 2390877560
Status : Answered
Chosen Option : 1

Q.30 According to IS 456:2000, what is the maximum spacing that is allowed for vertical stirrups in a simply supported beam?

- Ans  1. 300 mm
 2. 500 mm
 3. 150 mm
 4. 600 mm

Question ID : 2390877543
Status : Answered
Chosen Option : 1

Q.31 Which of the following is an example of a sedimentary rock?

- Ans  1. Sandstone
 2. Quartzite
 3. Marble
 4. Granite

Question ID : 2390877505
Status : Answered
Chosen Option : 1

Q.32 What is the relation between equivalent length (L_e) and actual length (l) for a column with one end fixed and the other free?

- Ans  1. ($L_e = \frac{l}{4}$)
 2. ($L_e = 3l$)
 3. ($L_e = 2l$)
 4. ($L_e = 2.5l$)

Question ID : 2390877552
Status : Answered
Chosen Option : 3

Q.33 The unit of dynamic viscosity of a fluid is :

- Ans  1. $\text{N.s}^2/\text{m}$
 2. $\text{N.s}/\text{m}^2$
 3. $\text{N.m}/\text{s}$
 4. $\text{N.m}^2/\text{s}$

Question ID : 2390877532
Status : Answered

Chosen Option : 4

Q.34 A method in which the plinth area of a building is measured and then multiplied by the current plinth area rate is:

- Ans
- ☒ 1. Cubic rate estimate
 - ☒ 2. Estimated from the plinth area basis
 - ☒ 3. Cost from detailed items
 - ☒ 4. Estimated cost from accounts

Question ID : 2390877575

Status : Answered

Chosen Option : 2

Q.35 The autoclave test is used to determine the _____ in Portland cement.

- Ans
- ☒ 1. calcium content
 - ☒ 2. sulphur content
 - ☒ 3. rate of hydration
 - ☒ 4. expansion

Question ID : 2390877540

Status : Answered

Chosen Option : 1

Q.36 The Bernoulli's equation refers to the conservation of :

- Ans
- ☒ 1. force
 - ☒ 2. momentum
 - ☒ 3. energy
 - ☒ 4. mass

Question ID : 2390877530

Status : Answered

Chosen Option : 3

Q.37 If the pH of the water is more than 8.5, then which of the following chloramines will be formed?

- Ans
- ☒ 1. Only monochloramine
 - ☒ 2. Both monochloramine and dichloramine
 - ☒ 3. Only dichloramine
 - ☒ 4. Only trichloramine

Question ID : 2390877512

Status : Not Answered

Chosen Option : --

Q.38 According to the Indian Standard Classification, the soil is classified into:

- Ans
- ☒ 1. 5 groups
 - ☒ 2. 10 groups

- ☐ 3. 23 groups
- ☒ 4. 18 groups

Question ID : 2390877583
Status : Not Answered
Chosen Option : --

Q.39 The magnetic bearing of a line is found as $35^{\circ} 45'$. If the declination is $3^{\circ} 45'$ E, the true bearing of line is :

- Ans ☐ 1. $129^{\circ} 30'$
- ☐ 2. 32°
- ☐ 3. $50^{\circ} 30'$
- ☒ 4. $39^{\circ} 30'$

Question ID : 2390877564
Status : Answered
Chosen Option : 2

Q.40 A floating body is said to be in stable equilibrium if:

- Ans ☐ 1. Its centre of gravity is below the centre of buoyancy
- ☒ 2. Its metacentric height is a positive value
- ☐ 3. Its metacentric height is zero
- ☐ 4. Its metacentric height is a negative value

Question ID : 2390877534
Status : Answered
Chosen Option : 2

Q.41 According to Gales, the upstream length of a guided bank should be _____ for discharge between 7000 to 21,000 cumecs.

- Ans ☐ 1. 0.1 litres
- ☒ 2. 1.25 litres
- ☐ 3. 2 litres
- ☐ 4. 0.2 litres

Question ID : 2390877525
Status : Not Answered
Chosen Option : --

Q.42 A steel built up column is subjected to an axial force of 1000 kN. The lacing system has to be designed for resisting a transverse shear of :

- Ans ☐ 1. 30 kN
- ☐ 2. 20 kN
- ☐ 3. 15kN
- ☒ 4. 25 kN

Question ID : 2390877549

Status : **Not Answered**
Chosen Option : --

Q.43 With respect to irrigation efficiencies, the ratio of the quantity of water stored into the root zones of crops to the quantity of water actually delivered into the field is called:

- Ans
- ☒ 1. water-application efficiency
 - ☐ 2. water-storage efficiency
 - ☐ 3. water-conveyance efficiency
 - ☐ 4. water-use efficiency

Question ID : **2390877518**
Status : **Answered**
Chosen Option : 2

Q.44 What will be the rough cost estimate for a first class building having a plinth area of 100 m^2 , if the rate/ m^2 is ₹600 and necessary additions of 20% are to be made for public health worth?

- Ans
- ☐ 1. ₹12,000
 - ☐ 2. ₹72,00,000
 - ☒ 3. ₹72,000
 - ☐ 4. ₹60,000

Question ID : **2390877572**
Status : **Answered**
Chosen Option : 3

Q.45 Which of the following sentences is **INCORRECT** in the case of mortar?

- Ans
- ☐ 1.
Cement lime mortars are helpful in autogenously healing of cracks.
 - ☐ 2.
Even a small percentage of mica, if present, considerably lowers the tensile strength and adversely affects the compressive strength.
 - ☒ 3.
There is a gain of compressive strength by the replacement of less than 25% of cement by hydrated lime.
 - ☐ 4.
It requires about twice as much cement to produce mortar of a given strength when fine sand is used as it does with coarse sand.

Question ID : **2390877498**
Status : **Not Answered**
Chosen Option : --

Q.46 _____ is 33 feet long and is mostly used for cadastral surveying.

- Ans
- ☐ 1. Metric chain
 - ☐ 2. Band chain
 - ☐ 3. Gunter's chain
 - ☒ 4. Revenue chain

Question ID : **2390877561**
Status : **Not Answered**

Chosen Option : --

Q.47 What will be the end moment of a fixed beam with a uniformly distributed load of 'w' kN/m² and a length of 'l' m?

- Ans
- ✓ 1. $\pm wl^2/12$
 - ✗ 2. $\pm wl^2/8$
 - ✗ 3. $\pm wl^2/2$
 - ✗ 4. $\pm wl/8$

Question ID : 2390877581

Status : Answered

Chosen Option : 1

Q.48 Identify the one where the centroid of section lies outside section?

- Ans
- ✓ 1. Angle section
 - ✗ 2. Tee section
 - ✗ 3. Symmetrical I section
 - ✗ 4. Unsymmetrical I section

Question ID : 2390877579

Status : Answered

Chosen Option : 1

Q.49 Which of the following is a fillet weld?

- Ans
- ✗ 1. Single J
 - ✓ 2. Mitre
 - ✗ 3. Single bevel
 - ✗ 4. Square

Question ID : 2390877553

Status : Answered

Chosen Option : 1

Q.50 Which one is the disadvantage of Internal Focusing Telescope?

- Ans
- ✓ 1. There are two separate tubes.
 - ✗ 2. The telescope is more balanced during operation.
 - ✗ 3. The line of collimation is less affected while focusing.
 - ✗ 4. There is no movement of sliding tubes.

Question ID : 2390877559

Status : Not Answered

Chosen Option : --

Q.51 For which of the following tunnel losses is Manning's rugosity co-efficient used in the calculation of head loss?

- Ans
- ✓ 1. Frictional loss

- ☒ 2. Loss due to change of velocity in contraction
- ☒ 3. Loss due to bend
- ☒ 4. Loss due to change of velocity in expansion

Question ID : **2390877526**
Status : **Not Answered**
Chosen Option : --

Q.52 As per the IS 2185 (Part1) : 2005, what is the minimum average compressive strength for open and closed cavity load-bearing masonry units?

- Ans
- ☒ 1. 3.5 N/mm^2
 - ☒ 2. 0.5 N/mm^2
 - ☒ 3. 1.5 N/mm^2
 - ☒ 4. 2.5 N/mm^2

Question ID : **2390877507**
Status : **Not Answered**
Chosen Option : --

Q.53 According to IS 10262:1982, what should be the compressive strength of OPC of grade C?

- Ans
- ☒ 1. 32.5 to 37.5 MPa
 - ☒ 2. 47.5 to 52.5 MPa
 - ☒ 3. 37.5 to 42.5 MPa
 - ☒ 4. 42.5 to 47.5 MPa

Question ID : **2390877538**
Status : **Not Answered**
Chosen Option : --

Q.54 Identify the dimensionless parameter from the following.

- Ans
- ☒ 1. Kinematic viscosity
 - ☒ 2. Reynolds number
 - ☒ 3. Specific weight
 - ☒ 4. Chezy's co-efficient

Question ID : **2390877531**
Status : **Answered**
Chosen Option : **2**

Q.55 Which of the following is an assumption made in the Theory of Simple Bending?

- Ans
- ☒ 1. Beam material within elastic limit does not obey Hooke's Law
 - ☒ 2. The beam is in equilibrium.
 - ☒ 3. The material of the beam is not homogeneous.

✗ 4.

The value of Young's modulus varies in tension and compression.

Question ID : 2390877578

Status : Answered

Chosen Option : 2

Q.56 The process of separating impurities from a suspending fluid by the action of natural forces alone is called:

Ans

✗ 1. chemical precipitation

✓ 2. plain sedimentation

✗ 3. discrete particles

✗ 4. sedimentation with coagulation

Question ID : 2390877513

Status : Answered

Chosen Option : 2

Q.57 The relation between bulk modulus (K) and Young's modulus (E) and Poisson's ratio ($1/m$) is given by:

Ans

✗ 1. $K = mE/3$

✗ 2. $K = E/[3(m - 2)]$

✗ 3. $K = mE/(3m)$

✓ 4. $K = mE/[3(m - 2)]$

Question ID : 2390877580

Status : Answered

Chosen Option : 4

Q.58 The Road Development Plan for India for the period of 1981 to 2001 is also known as:

Ans

✗ 1. Bombay plan

✗ 2. Kanpur plan

✗ 3. Nagpur plan

✓ 4. Lucknow plan

Question ID : 2390877592

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.59 Which of the following is the function of the sub base layer in the pavement?

Ans

✗ 1. To resist the abrasive forces of traffic

✗ 2. To provide a smooth and uniform surface for riding

✗ 3. To provide skid resistance surface

✓ 4. To minimize the damaging effects of frost action

Question ID : 2390877595

Status : **Answered**
Chosen Option : 1

Q.60 An elongated chain cannot be adjusted by:

- Ans
- ☐ 1. stretching some rings
 - ☐ 2. closing up the connecting rings if they have opened
 - ☐ 3. straightening the links that have become bent
 - ☒ 4. heating up the chain

Question ID : 2390877562
Status : **Answered**
Chosen Option : 4

Q.61 Which of the following qualities is desirable in a good surveyor's telescope?

- Ans
- ☐ 1. Spherical aberration
 - ☐ 2. Very high magnification
 - ☐ 3. Chromatic aberration
 - ☒ 4. Achromatism

Question ID : 2390877557
Status : **Not Answered**
Chosen Option : --

Q.62 Which of the following is also called inundation irrigation?

- Ans
- ☐ 1. Diversion irrigation
 - ☐ 2. Combined scheme
 - ☒ 3. Flow irrigation
 - ☐ 4. Storage irrigation

Question ID : 2390877519
Status : **Not Answered**
Chosen Option : --

Q.63 An open tank contains 60 cm of water covered with 30 cm of oil of specific gravity 0.8. The pressure intensity recorded at the bottom of tank is:

- Ans
- ☐ 1. 8829 N/m^2
 - ☐ 2. 9430.6 N/m^2
 - ☐ 3. 2354.4 N/m^2
 - ☒ 4. 8240.4 N/m^2

Question ID : 2390877535
Status : **Not Answered**
Chosen Option : --

Q.64

Which of the following is added as a vehicle in paints?

- Ans
- ✓ 1. Tung oil
 - ✗ 2. White lead
 - ✗ 3. Read lead
 - ✗ 4. Turpentine oil

Question ID : 2390877501

Status : Answered

Chosen Option : 4

Q.65 If H is the head over the crest of a rectangular weir, the discharge varies as :

- Ans
- ✗ 1. $H^{2.5}$
 - ✗ 2. $H^{0.5}$
 - ✓ 3. $H^{1.5}$
 - ✗ 4. H

Question ID : 2390877529

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.66 The rocks that possess crystalline and compact grains are called:

- Ans
- ✗ 1. siliceous rocks
 - ✗ 2. foliated rocks
 - ✗ 3. stratified rocks
 - ✓ 4. unstratified rocks

Question ID : 2390877508

Status : Answered

Chosen Option : 1

Q.67 As per IS 13311 (Part 1), in the ultrasonic test for hardened concrete, good quality of concrete is indicated if the pulse velocity is:

- Ans
- ✗ 1. 3.0 km/s to 3.5 km/s
 - ✓ 2. 3.5 km/s to 4.5 km/s
 - ✗ 3. Above 4.5 km/s
 - ✗ 4. Below 3.0 km/s

Question ID : 2390877542

Status : Answered

Chosen Option : 1

Q.68 Which of the following is true in the case of a freeholder?

- Ans
- ✓ 1. A freeholder is the absolute owner of the property.
 - ✗ 2.

A freeholder possesses the occupational right for a specific period of duration.

☒ 3.

A freeholder requires to pay periodic payment regularly to hold the position of the property.

☒ 4.

A freehold ownership is for possession against payment and terminates as soon as the lease period is over.

Question ID : 2390877573

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

Chosen Option : --

Q.69 The modulus of Elasticity of concrete is given by $E_c = \underline{\hspace{1cm}}$ MPa.
(Where f_{ck} = characteristic compressive strength of concrete cube)

Ans

☒ 1. $2000f_{ck}$

☒ 2. $5000f_{ck}$

☒ 3. $3000\sqrt{f_{ck}}$

☒ 4. $5000\sqrt{f_{ck}}$

Question ID : 2390877548

Status : **Answered**

Chosen Option : 4

Q.70 The factored load carrying capacity of a reinforced concrete column (M20 concrete, Fe 415 steel) of 350 mm X 650 mm size with minimum percentage of steel is :

Ans

☒ 1. 1976 kN

☒ 2. 2500 kN

☒ 3. 2326 kN

☒ 4. 1536 kN

Question ID : 2390877546

Status : **Not Answered**

Chosen Option : --

Q.71 What will be the capacity factor of hydro-power if a plant with a capacity of 10000 KW is to produce 400000 kWh when operating for 100 hours?

Ans

☒ 1. 50%

☒ 2. 40%

☒ 3. 25%

☒ 4. 30%

Question ID : 2390877528

Status : **Answered**

Chosen Option : 2

Q.72 Which of the following is a non-automatic rain gauge used in the measurement of rainfall?

Ans

☒ 1. Symon's rain gauge

☒ 2. Float-type rain gauge

- ☒ 3. Tipping bucket rain gauge
- ☒ 4. Weighing bucket rain gauge

Question ID : 2390877510
Status : Answered
Chosen Option : 1

Q.73 What are the errors that cannot be eliminated in surveying?

- Ans ☒ 1. errors due to natural causes
- ☒ 2. personal errors
- ☒ 3. random errors
- ☒ 4. instrumental errors

Question ID : 2390877558
Status : Answered
Chosen Option : 3

Q.74 The art of assessing the present fair value of a property at a stated time is known as:

- Ans ☒ 1. Salvage value
- ☒ 2. Book value
- ☒ 3. Rateable value
- ☒ 4. Valuation

Question ID : 2390877576
Status : Answered
Chosen Option : 4

Q.75 Which of the following is the chemical classification of rocks?

- Ans ☒ 1. Foliated rock
- ☒ 2. Unstratified rock
- ☒ 3. Silicious rock
- ☒ 4. Stratified rock

Question ID : 2390877503
Status : Answered
Chosen Option : 3

Q.76 A 1-m-long steel rod with a cross-section of 20 mm × 20 mm is subjected to tensile forces of 40 kN. Determine the elongation of the rod if the modulus of elasticity is 200 GPa.

- Ans ☒ 1. 0.005 mm
- ☒ 2. 0.5 mm
- ☒ 3. 5 mm
- ☒ 4. 50 mm

Question ID : 2390877577
Status : Answered
Chosen Option : 3

Q.77 What is the common scale adopted in the form of a representative fraction for the forest map?

- Ans**
- ☐ 1. 1/1000
 - ☒ 2. 1/25000
 - ☐ 3. 1/100
 - ☐ 4. 1/10000

Question ID : **2390877556**
Status : **Not Answered**
Chosen Option : --

Q.78 Which method of surveying distance and elevation involves measuring the vertical angle to the graduation on staff using the principle of trigonometry?

- Ans**
- ☐ 1. Triangulation
 - ☐ 2. Traversing
 - ☒ 3. Tachometry
 - ☐ 4. Trigonometrical

Question ID : **2390877555**
Status : **Answered**
Chosen Option : **3**

Q.79 According to Central Building Research Institute, what is the specification adopted for the floor of single and double-storey buildings?

- Ans**
- ☐ 1.
40-mm-thick cement concrete 1 : 3 : 5 laid over 11.5-cm-thick cement concrete 1 : 5 : 10
 - ☐ 2.
30-mm-thick cement concrete 1 : 3 : 5 laid over 11.5-cm-thick cement concrete 1 : 5 : 10
 - ☒ 3.
38-mm-thick cement concrete 1 : 2 : 4 laid over 11.5-cm-thick cement concrete 1 : 5 : 10
 - ☐ 4.
38-mm-thick cement concrete 1 : 4 : 6 laid over 11.5-cm-thick cement concrete 1 : 5 : 10

Question ID : **2390877570**
Status : **Not Answered**
Chosen Option : --

Q.80 A steel rod of 20 mm diameter is used as a tie member in the roof bracing system, and may be subjected to possible reversal of stress due to wind load. What is the maximum permissible length of the member?

- Ans**
- ☒ 1. 1750 mm
 - ☐ 2. 2000 mm
 - ☐ 3. 3000 mm
 - ☐ 4. 2500 mm

Question ID : **2390877554**
Status : **Not Answered**
Chosen Option : --

Q.81 In contracts and tenders, which authorised bill is the only form of running account bills that are suited for transactions with suppliers?

- Ans
- ☒ 1. Hand Receipt [DFR(PW)26]
 - ☒ 2. Running Account Bill 'C' [DFR(PW)25]
 - ☒ 3. First and Final Bill [DFR(PW)22]
 - ☒ 4. Running Account Bill 'A' [DFR(PW)23]

Question ID : 2390877566
 Status : Not Answered
 Chosen Option : --

Q.82 What is the Moh's hardness number for Topaz?

- Ans
- ☒ 1. 2
 - ☒ 2. 8
 - ☒ 3. 10
 - ☒ 4. 12

Question ID : 2390877506
 Status : Not Answered
 Chosen Option : --

Q.83 In a highway an ascending gradient of 1 in 100 meets with a descending gradient of 1 in 80, determine the deviation angle?

- Ans
- ☒ 1. $\frac{1}{800}$
 - ☒ 2. $\frac{1}{400}$
 - ☒ 3. $\frac{9}{800}$
 - ☒ 4. $\frac{9}{400}$

Question ID : 2390877593
 Status : Answered
 Chosen Option : 2

Q.84 In soil engineering, what is the volumetric relationship that defines-porosity?

- Ans
- ☒ 1. The ratio of the volume of voids to the volume of solids
 - ☒ 2. The ratio of the volume of air to the total volume
 - ☒ 3. The ratio of the volume of voids to the total volume
 - ☒ 4. The ratio of the volume of water to the volume of voids

Question ID : 2390877585
 Status : Answered
 Chosen Option : 1

Q.85 Determine the position of center of pressure (from the surface), for a rectangular lamina of height h immersed vertically in water upto a depth h below the free surface.

- Ans
- ☒ 1. $\frac{h}{3}$

- ☒ 2. $\frac{3h}{4}$
- ☒ 3. $\frac{5h}{3}$
- ☒ 4. $\frac{2h}{3}$

Question ID : **2390877533**
Status : **Not Answered**
Chosen Option : --

Q.86 Find the delta for a crop when its duty is 864 hectares/cumec on the field and the base period of the crop is 120 days.

- Ans ☒ 1. 310 cm
- ☒ 2. 864 cm
- ☒ 3. 120 cm
- ☒ 4. 400 cm

Question ID : **2390877520**
Status : **Answered**
Chosen Option : 3

Q.87 Which of the following is an objective of aeration of water?

- Ans ☒ 1. To increase the carbon dioxide content of water
- ☒ 2.

To remove tastes and odours from the gases produced due to organic decomposition

- ☒ 3. To preserve hydrogen sulphide
- ☒ 4. To decrease the dissolved oxygen content of the water

Question ID : **2390877511**
Status : **Answered**
Chosen Option : 2

Q.88 The covered area of a building measured at the floor level is called:

- Ans ☒ 1. Sundry area
- ☒ 2. Circulation area
- ☒ 3. Carpet area
- ☒ 4. Plinth area

Question ID : **2390877571**
Status : **Answered**
Chosen Option : 4

Q.89 Which of the following cement is supposed to be the best cementing material and is well burnt cement?

- Ans ☒ 1. Tricalcium aluminate
- ☒ 2. Tricalcium silicate
- ☒ 3. Dicalcium silicate
- ☒ 4. Tetracalcium aluminoferrite

Question ID : 2390877537

Status : Answered

Chosen Option : 2

Q.90 What do you mean by 'contingencies' in deposit works?

Ans ☐ 1.

The re-allotment of the funds from one work to another work in the same division

☒ 2.

The incidental charges of a miscellaneous character that cannot be classified under any subhead, but the cost is added

☐ 3.

The completed supply or work done at the time of measurement

☐ 4.

The allotment of the funds to the department for a particular work

Question ID : 2390877567

Status : Answered

Chosen Option : 2

Q.91 What is the rate of filtration in a slow sand filter used for water purification?

Ans ☐ 1. 3000 to 6000 litres/hour/m²

☒ 2. 100 to 200 litres/hour/m²

☐ 3. 500 to 1000 litres/hour/m²

☐ 4. 300 to 600 litres/hour/m²

Question ID : 2390877515

Status : Answered

Chosen Option : 4

Q.92 The presence of which of the following is a reason for temporary hardness of water?

Ans ☐ 1. Chlorides

☒ 2. Carbonates

☐ 3. Nitrates

☐ 4. Sulphates

Question ID : 2390877514

Status : Answered

Chosen Option : 2

Q.93 In estimation and valuation, the charges that are levied at the time of transfer or issue of the stock in addition to the book value and storage charges are termed as:

Ans ☒ 1. issue rate

☐ 2. storage charge

☐ 3. supervision charge

☐ 4. market rate

Question ID : 2390877565

Status : Answered

Chosen Option : 3

Q.94 Which of the following constituents in the manufacture of glass acts as an accelerator for the fusion of glass and an excess of which will be harmful?

- Ans
- ☒ 1. Lime
 - ☒ 2. Potash
 - ☒ 3. Cullet
 - ☒ 4. Soda

Question ID : 2390877499

Status : Answered

Chosen Option : 2

Q.95 Division of the Indian roads into four classes as national highway, state highway, district roads and village roads was proposed by:

- Ans
- ☒ 1. The Nagpur Road Plan
 - ☒ 2. The Indian Roads Congress in 1934
 - ☒ 3. Pierre Tresaguet
 - ☒ 4. National Transport Policy Committee

Question ID : 2390877591

Status : Not Answered

Chosen Option : --

Q.96 What is the expression for crippling load for a column with both ends hinged?

- Ans
- ☒ 1. $P = \frac{\pi^2 EI}{(l)^2}$
 - ☒ 2. $P = \frac{3\pi^2 EI}{(l)^2}$
 - ☒ 3. $P = \frac{5\pi^2 EI}{(l)^2}$
 - ☒ 4. $P = \frac{\pi^2 EI}{6(l)^2}$

Question ID : 2390877550

Status : Answered

Chosen Option : 1

Q.97 Which of the following sentences is correct in the case of Bishop's simplified method of slice?

- Ans
- ☒ 1. It disregards the effect of the forces acting on the sides of the individual slices.
 - ☒ 2. It satisfies only vertical force equilibrium.
 - ☒ 3. It satisfies only moment force equilibrium.
 - ☒ 4. It satisfies only horizontal force equilibrium.

Question ID : 2390877590

Status : **Not Answered**
Chosen Option : --

Q.98 According to IS 456:2000, what should be the unit weight of plain cement concrete?

- Ans
- ☐ 1. 23 kN/m³
 - ☐ 2. 22 kN/m³
 - ☐ 3. 21 kN/m³
 - ☒ 4. 24 kN/m³

Question ID : **2390877541**
Status : **Answered**
Chosen Option : **4**

Q.99 Which of the following is an advantage of tile drainage?

- Ans
- ☐ 1. It decreases the volume of soil from which the roots can obtain food.
 - ☐ 2. It decreases bacterial activity.
 - ☐ 3. It decreases air circulation.
 - ☒ 4. It removes the free gravity water that is not directly available to the plants.

Question ID : **2390877522**
Status : **Not Answered**
Chosen Option : --

Q.100 Which technique of water distribution in farms is also called trickle irrigation?

- Ans
- ☐ 1. Sprinkler irrigation
 - ☐ 2. Free flooding
 - ☒ 3. Drip irrigation
 - ☐ 4. Border flooding

Question ID : **2390877517**
Status : **Answered**
Chosen Option : **3**