# Previous Year Paper 

## SSC JE

(Civil) Paper-I

100ct, 2023 SBift

Junior Engineer Civil Mechanical and Electrical Examination 2023 Paper I

| Roll Number |  |
| :--- | :--- |
| Candidate Name |  |
| Venue Name |  |
| Exam Date | 10/10/2023 |
| Exam Time | 5:00 PM - 7:00 PM |
| Subject | Junior Engineer 2023 Civil Paper I |

Section : General Intelligence and Reasoning
Q. 1 Select the figure from the options that can replace the question mark (?) and complete the given pattern.


Ans

Q. 2 Select the optionfigure which is embedded in the givenfigure as its part (rotation is NOT allowed).


Ans
$\times 1$

$\times 2$

$\times 3$.

$\checkmark 4$

Q. 3 Three statements are given followed by three conclusions numbered I, II and III. 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.

## Statements:

No cat is a dog.
All dogs are rats.
Some bears are cats.
Conclusions:
I. All rats can never be cats.
II. No bear is a rat.
III. All bears can never be dogs.

Ans
X 1. Only I follows
2. Only I and III follow

X 3. Only II and III follow
X 4. Only II follows
Q. 4 Select the correct option that indicates the arrangement of the following words in a logical and meaningful order.

1. Tissue
2. Organ
3. Nucleus
4. Organ system
5. Cells

Ans
X1.53124

- 2.35124
$\times 3.51324$
$\times 4.31524$
Q. 5 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13- Operations on 13 such as
adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)
$(697,13,866)$
$(15,91,8296)$
Ans
X 1. $(832,8,887)$
X 2. $(747,25,1423)$
* $3 .(541,14,737)$

X 4. $(651,16,940)$
Q. 6 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13- Operations on 13 such as
adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)
(19, 53, 215)
$(22,15,110)$
Ans
X 1. $(15,49,199)$
X 2. $(17,47,112)$
3. $(13,35,143)$

X 4. $(18,50,230)$
Q. 7 Select the word-pair in which the two words are related in the same way as are the two words in the given pair.
(The words must be considered as meaningful English words and must not be related to each other based on the number of letters/number of consonants/vowels in the word.) Quadrilateral: Four
Ans
X 1. Decagon : Eleven
2. Nonagon: Nine
$X$ 3. Cube : Six
X 4. Heptagon: Eight
Q. 8 Select the option that is related to the sixth letter-cluster in the same way as thfirst lettercluster is related to the second letter-cluster and the third letter-cluster is related to the fourth letter-cluster.

BLG : DPM : : HSD: JWJ :: ? : HOV
Ans

1. FKP

X 2. FLP
X 3. FJQ
X 4. GKP

```
Q.9 Select the option that indicates the correct arrangement of the given words in a logical and meaningful order
    1. Horse
    2. Monkey
    3. Elephant
    4. Grasshopper
    5. Ant
Ans
X 1.3,2,1,5,4
        2. 3, 1, 2, 4, 5
    X 3,1,2,5,3,4
    X 4.1,3,2,4,5
```

                                    Question ID : 26433074672
                                    Option 1 ID : 264330292778
                                    Option 2 ID : 264330292776
                                    Option 3 ID : 264330292779
                                    Option 4 ID : 264330292777
                                    Status : Answered
    Chosen Option :
Q. 10 In a certain code language, 'AUDIT' is coded as BWGHR and 'HEAVY' is coded as IGDUW. How will 'INDEX' be coded in that language?
1.JPGDV

X 2. KPGDU
$X$ 3. KPHDW
X 4. JQHDV

Question ID : 264330133212
Option 1 ID : 264330521896
Option 2 ID : 264330521897
Option 3 ID : 264330521898
Option 4 ID : 264330521895
Status : Answered
Chosen Option :

## Ans

Q. 11 Select the option that is related to the fourth term in the same way as the first term is related to the second term and the fifth term is related to the sixth term?

12 : 2 :: ? : 4 :: 243 : 9
Ans

1. 48
$X_{2.24}$
$X_{3.25}$
$X_{4.36}$
Question ID : 264330144872
Option 1 ID : 264330567746
Option 2 ID : 264330567745
Option 3 ID : 264330567743
Option 4 ID : 264330567744
Status : Answered
Q. 12 The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown below. Choose afigure which would most closely resemble the unfolded form of the paper


Ans

Q. 13 Cricket commentators - Boycott, Sidhu, Sunny, Shastri, and Harsha along with two guest speakers Kapil and Srikanth - have to sit in a row to get a photograph taken. Harsha and Shastri being the youngest among the group sit on either side. Since Kapil and Srikanth are guest speakers they sit together. But Kapil and Sunny do not get along with each other and should be seated with at least 2 persons between them. Sidhu being the victim of all their leg-pulling is upset and sits with one of the young commentators. Among the following, who could be seated at the centre?

Ans
$X_{1 \text {. Sidhu }}$
2. Boycott
$X_{\text {3. Sunny }}$
$X_{\text {4. Harsha }}$
Q. 14 Six students $P, Q, R, S, T$ and $U$ are sitting around a circular table facing the centre. $R$ is an immediate neighbour of both $T$ and $U$. $P$ is sitting third to the right of $U$. $Q$ is sitting immediate left to S . S is sitting second to the right of P . What is the position of T with respect to $P$ ?

1. Immediate left
$X$ 2. Second to the left
X 3. Immediate right
4 4. Third to the right
Question ID : 26433056897
Option 1 ID : 264330222574
Option 2 ID $: 264330222573$
Option 3 ID : 264330222572
Option 4 ID $: 264330222575$
Status : Answered
Chosen Option :1

Ans
Q. 15 Select the number from among the given options that can replace the question mark (?) in the following series.
$18,34,40,78,84,166,172$, ?
Ans
$X_{1.344}$

- 2.342
$X_{3.324}$
$X_{4.322}$
Q. 16 Which letter cluster will replace the question mark (?) to complete the given series?

SXT, PVU, MTV, JRW, ?
Ans $\quad X_{1 . H P Z}$
$X_{\text {2. GQY }}$
$\chi_{3 . G O Z}$

- 4. GPX

Question ID : 264330144575
Option 1 ID : 264330566555
Option 2 ID : 264330566556
Option 3 ID : 264330566558
Option 4 ID : 264330566557
Status: Answered
Chosen Option : 4
Q. 17 Select the option that represents the correct order of the given words as they would appear in an English dictionary.

1. Vacuum
2. Vague
3. Vacancy
4. Valley
5. Vaccinate

X 1.3, 5, 2, 1, 4
2) 2. $3,5,1,2,4$

X 3.3,1,5,2,4
X 4.3,5,1, 4, 2

Question ID : 264330129556
Option 1 ID : 264330507592
Option 2 ID : 264330507591
Option 3 ID : 264330507593
Option 4 ID : 264330507590
Status: Answered
Chosen Option : 2
Ans
Q. 18 Select the word-pair that best represents a similar relationship to the one expressed in the pair of words given below. (The words must be considered as meaningful English words and must not be related to each other based on the number of letters/numbers of consonants/vowels in the word)

UK : POUND
Ans

1. GERMANY : LIRA
$X_{\text {2.IRAQ: KYAT }}$
> 3. DUBAI: TAKA
2. THAILAND : BAHT
Q. 19 In a certain code language, "DISTRUST" is written as " 24 " and "ABASEMENT" is written as " 27 ". How will "BUFFER" be written in that language?

Ans
$X_{1.32}$
$X_{2.28}$
3.18
$X_{4.24}$
Q. 20 Which of the following numbers will replace the question mark (?) in the given series?

32, 49, ?, 89, 112, 137,164
$\times 1.64$
$\times 2.66$

- 3.68
$\times 4.72$

Question ID : 264330103127
Option 1 ID : 264330404813
Option 2 ID : 264330404815
Option 3 ID : 264330404816
Option 4 ID : 264330404814
Status: Answered
Chosen Option : 3

Ans
Q. 21 Select the set in which the numbers are related in the same way as are the numbers of the following set.
(NOTE: Operations should be performed on the whole numbers, without breaking down the
numbers into its constituent digits. E.g., 13 - Operations on 13 such as
adding/subtraction/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and
then performing mathematical operations on 1 and 3 is not allowed) $(5,3,6)$
$(7,2,17)$
Ans

1. $(3,2,5)$
$X_{2 .(8,6,4)}$
$x_{3 .(4,3,1)}$
$X_{\text {4. }(15,4,30)}$
Q. 22 A woman said to a man, "Your paternal grandfather is the husband of the mother-in-law of my brother's wife". How is that man related to that woman?

Ans

1. Brother's son
$X_{\text {2. Son }}$
$X_{\text {3. Father }}$
$x_{4 . \text { Brother }}$
Q. 23 Select thefigure from the options that can replace the question mark (?) and complete the

$\times 1$

$\checkmark 3$

$\times 4$.

Q. 24 Select the option that represents the letters that, when placed from left to right in the blanks below, will complete the letter series

Ans
_ $\mathrm{EI} \_\mathrm{UA}_{-} \mathrm{IO} \mathrm{O}_{-} \mathrm{E} \_\mathrm{OUA} \mathrm{O}_{-} \mathrm{OU}$

Ans

1. AOEUAIE
$x_{\text {2.Aleooul }}$
$x_{\text {b.oafulae }}$
$x_{\text {4.OOAIOEI }}$
Q. 25 Which letter-cluster will replace the question mark (?) to complete the given series?

IYMV, JXNU, LVPS, ? , SOWL
X 1. POSO
$\times 2$. OPPS
>3.OSPS

- 4. OSSP

Ans
Q. 26 A person starts from point H and moves 4 km towards the west. He turns left and moves 6 km . He then turns right and moves 2 km and turns left and moves 1 km . He then takes a left turn and moves 6 km and stops at point $D$. How much and in which direction does he need to move to reach point $H$ ?

Ans
X $_{1.5 \mathrm{~km}, \text { East }}$
$x_{2.4 \mathrm{~km} \text {, North }}$
$X_{3.6 \mathrm{~km} \text {, East }}$
4. 7 km , North
Q. 27 Select the option that is related to the third word in the same way as the second word is related to the first word.
(The words must be considered as meaningful English words and must not be related to each other based on the number of letters/number of consonants/vowels in the word) Black : White :: Head : ?

Ans

1. Toe
$X_{\text {2. Hand }}$
$X_{3 .}$ neck
$X_{4 . \text { Spine }}$
Question ID : 26433076682
Option 1 ID : 264330300792
Option 2 ID : 264330300794
Option 3 ID : 264330300793
Option 4 ID : 264330300795
Status: Answered
Chosen Option : 1
Q. 28 In a certain code language, 'MENTAL' is written as ' 103 ' and 'RULE' is written as ' 56 '. How will 'VERBAL' be written in that language?

Ans
$X_{1.114}$
$X_{2.102}$
$\times 3.100$
*. 4.108
Question ID : 264330144551
Option 1 ID : 264330566461
Option 2 ID : 264330566459
Option 3 ID : 264330566462
Option 4 ID : 264330566460
Status: Answered
Q. 29 Which of the following option figures will complete the pattern in the figure given below?


Ans


- 3. 


$\times 4$


Question ID : 26433080584
Option 1 ID : 264330316271
Option 2 ID : 264330316272
Option 3 ID : 264330316270
Option 4 ID: 264330316269
Status: Answered
Chosen Option: 3
Q. 30 Shruti departs from her home and walks 26 m towards the east. She then turns left and walks 18 m .

She turns right and walks 34 m . She takes a right turn again and walks 30 m . She then takes a left turn and walks 10 m . She takes a final left turn and walks 12 m to stop at Point X. How far and in which
direction is her home from Point X?
(Assume that all the turns are $90^{\circ}$ turns only.)
Ans
$X_{1.65 \text { m east }}$
$X_{2.55 \mathrm{~m} \text { east }}$
3. 70 m west
$X_{4.60 \mathrm{~m} \text { west }}$

Q. 32 How many square are there in the given figure?


Ans
X1. 20
$\times 2.16$

* 3.17
$\times 4.18$

Select the correct mirror image of the given combination when the mirror is placed at 'PQ' as shown.
RW5BZ7
$0.33^{\mathrm{P}}$ Q

${ }^{\times 2}$ BMSBS」
${ }^{3}$ BM2BSI
${ }^{4}$ पMSBSJ
Q. 34 Select the correct combination of mathematical signs to sequentially replace the * signs and balance the given equation.
$5 * 25 * 5 * 11 * 9=23$
Ans
$X_{1 . \div x+}$
$\checkmark_{2 . \times \div-+}$
$x_{3, \times \div+}$
$x_{4 .+-x}$
Q. 35 Select the option in which the given figure is embedded (rotation is NOT allowed).
$\checkmark$
Ans

$\checkmark$

$\times 3$

$\times 4$

Q. 36 Select the option that represents the correct order of the given words as they would appear in an

English dictionary.

1. Spear
2. Specific
3. Special
4. Species
5. Sparrow

Ans
$X_{1.5,1,3,2,4}$
$X_{2.5,1,4,3,2}$
$\checkmark_{3.5,1,3,4,2}$
$X_{4.5,3,1,4,2}$
Q. 37 Which letter-cluster will replace the question mark (?) to complete the given series?

HCYU, AKUO, TSQI, ?, FIIA
Ans
$\chi_{1 .}$ name
$x_{2 . \text { nBNF }}$
3. mame
$x_{4 . \text { MBMF }}$
Q. 38 Select the option that is related to the sixth letter-cluster in the same way as thfirst lettercluster is related to the second letter-cluster and the third letter-cluster is related to the fourth letter-cluster.

RGY : OEV : :GPS : DNP :: ? : MKP
X 1. ONS
>2. OMR
X3. PNS

- 4. PMS

Question ID : 264330144561
Option 1 ID : 264330566499
Option 2 ID : 264330566501
Option 3 ID : 264330566502
Option 4 ID : 264330566500
Status: Answered
Chosen Option : 4
Ans
Q. 39 In a certain code language, 'COUNTRY' is coded as '73', and 'MAP' is coded as '51'. How will 'TRAVEL' be coded in that language?

Ans
$X_{1.124}$
$\times_{2.90}$
> 3.69
4.84

Question ID : 264330144602
Option 1 ID : 264330566663
Option 2 ID : 264330566665
Option 3 ID : 264330566664
Option 4 ID : 264330566666
Status: Answered
Q. 40 Which two signs should be interchanged to make the given equation correct? $11 \times 12 \div$
$78+6-57=88$
Ans

- $1 . \div$ and +
$X_{2 . \times \text { and }+}$
$X_{3 .} \div$ and -
$X_{4 .- \text { and } x}$
Question ID : 264330129534
Option 1 ID : 264330507503
Option 2 ID : 264330507504
Option 3 ID : 264330507502
Option 4 ID : 264330507505
Status: Answered
Chosen Option : 1
Q. 41 Two 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


## Statements:

All microwaves are ovens.
No oven is an induction.

Conclusions:
I. At least some microwaves are inductions
II. No microwave is an induction

X 1. Both conclusions I and II follow
X 2. Only conclusion I follows
3. Only conclusion II follows

X 4. Neither conclusion I nor II follows

Question ID : 264330144657
Option 1 ID : 264330566885
Option 2 ID : 264330566883
Option 3 ID : 264330566884
Option 4 ID : 264330566886
Status: Answered
Chosen Option :

## Ans

Q. 42 Select the option that is related to the third word in the same way as the second word is related to the
first word (The words must be considered as meaningful English words and must not be related to each
other based on the number of letters/consonants/vowels in the word).
Dishonesty : Distrust :: Carelessness $\qquad$
Ans
$X_{1 .}$ Gift
$x_{2 \text {. Habit }}$
$X_{3 .}$ Emotion

- 4. Accident
Q. 43 A is the sister of B.
C is the husband of
$C$ is the husband of $B$. $D$
is the father of $A$.
How is D related to C?

Ans
$X_{1}$. Father
$X_{2 \text {. Brother }}$
3. Wife's father
$X_{4 \text {. Wife's brother }}$
Question ID : 26433092475
Option 1 ID : 264330363189
Option 2 ID : 264330363192
Option 3 ID : 264330363190
Option 4 ID : 264330363191
Status: Answered
Chosen Option : 3
Q. 44 Seven friends A, B, C, D, E, F and G, each has a different age. C is older than D. A is the youngest among all. Only four people are older than $C$. $E$ is older than $G$ but younger than $F$. $F$ is not the oldest. The age of how many persons is between the ages of $B$ and $G$ ?
-1.2
$\times 2.0$
$\times 3.3$
$\times 4.1$

Question ID : 264330144649
Option 1 ID : 264330566852
Option 2 ID : 264330566854
Option 3 ID : 264330566853
Option 4 ID : 264330566851
Status : Answered
Chosen Option:1

Ans
Q. 45 If ' + ' means ' - ', ' - ' means ' $x$ ', ' $x$ ' means ' $\div$ ', ' $\div$ ' means ' + ', then what will come in place of the question mark (?) in the following equation? $13-182 \times 14 \div 25+16=$ ?

Ans $\quad{ }_{1.155}$
$\times 2.169$
*. 378
$X_{4.182}$

```
    Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.
    ahr47D
        N
    * arayns.
        aコtynaz
    < O7A1dss
    < O7P14s
```

Q. 47 Select the number from among the given options that can replace the question mark (?) in
the following series.
$97,97,82,82,67,67$, ?

- 1.52
$\times 2.54$
$\times 3.60$
$\times 4.56$

Question ID : 26433095003
Option 1 ID : 264330372833
Option 2 ID : 264330372836
Option 3 ID: 264330372834
Option 4 ID : 264330372835
Status: Answered
Chosen Option : 1
Ans
Q. 48 Which of the following terms will replace the question mark (?) in the given series? ABDG, ?, EFHK, GHJM, IJLO

Ans
$X_{1 . \text { DCFI }}$
2. CDFI
$X_{3 . \text { CDIF }}$
$X_{4 \text {. DCIF }}$
Q. 49 Which two signs should be interchanged to make the given equation correct?
$35+84 \times 4 \div 3-11=87$
Ans

1. $\div$ and $x$

X $2 . \times$ and +
$\times 3 . \div$ and -
X4. - and $\times$
Q. 50 Select the option that is related to thefifth term in the same way as the second term is related to the first term and the fourth term is related to the third term.
$9: 30:: 11: 36:: 15$ : ?
Ans
$\times 1.40$
$\times 2.50$

- 3.48
$\times 4.35$

Section : General Awareness
Q. 1 Vinai Kumar Saxena, who took over as the 22nd Lieutenant Governor of Delhi on 26th May 2022, hails from
Ans

- Madya Prad

X 2. Madya Pradesh
X 3. Odisha
X 4. Jharkhand
Q. 2 Which of the following compounds is a heterocyclic compound?

Ans

- 1. Furan

X 2. Acetic acid
X 3. Ethane
X4. Methane
Q. 3 Select the correct statement.

Ans

1. An open ecosystem exchanges both energy and matter with its surroundings.

X 2. A closed ecosystem exchanges both energy and matter with its surroundings.
X 3. A closed ecosystem exchanges only matter and no energy with its surroundings.
X4. An open ecosystem exchanges only energy and no matter with its surroundings.
Q. 4 Which letter symbol represents the Semi-arid steppe climate according to IKppen's scheme?
Ans
$\times 1$. As
X 2. Cwg
3. BShw

X4. Dfc
Question ID : 264330113788
Option 1 ID : 264330447239
Option 2 ID : 264330447240
Option 3 ID : 264330447237
Option 4 ID : 264330447238
Status : Not Answered
hosen Option : _-
Q. 5 In which of the following cases has the Supreme Court of India opined that the Constitution of India is founded on the bedrock of the balance between the Fundamental Rights and Directive Principles of State Policy?

Ans

1. Minerva Mills Case

X 2. Keshvananda Bharati Case
X 3. Maneka Gandhi case
X 4. Golaknath Case
Q. 6 Duleep Trophy is a first class $\qquad$ tournament held in India.
Ans
$X$ 1. football
X 2. volleyball

- 3

3. cricket
4. tennis

Option 1 ID : 264330467293
Option 2 ID : 264330467294
Option 3 ID : 264330467291
Option 4 ID : 264330467292
Status : Not Answered
Chosen Option: --
Q. 7 Which muscles can help modify the curvature in an eye lens?

Ans $\quad \times 1$. Glandular muscles
2. Ciliary muscles
$X$ 3. Smooth muscles
X 4. Cardiac
Q. 8 In which state of India is shifting cultivation known a\&Bringa’?

Ans
X 1. Madhya Pradesh
X 2. Andhra Pradesh
3. Odisha

X 4. Manipur

Question ID : 264330116452
Option 1 ID : 264330457894
Option 2 ID : 264330457896
Option 3 ID : 264330457893
Option 4 ID : 264330457895
Status : Not Answered
Chosen Option :-_
Q. 9 What are the places where the groundwater is stored between layers of hard rock below the water table called?
Ans
X 1. Water table
2. Aquifer

X 3. Infiltration
X 4. Underground water
Q. 10 Biodiversity is defined as a:

```
        \(X_{1 .}\) single variety of living organism
        \(X_{\text {2. wide variety of soil }}\)
        \(X_{3 \text {. wide variety of climates }}\)
    4. wide variety of living organisms
```

                                    Question ID : 264330109929
                                    Option 1 ID : 264330431994
                                    Option 2 ID : 264330431996
                                    Option 3 ID : 264330431995
                                    Option 4 ID : 264330431993
                                    Status : Answered
    Chosen Option: 4
Q. 11 Which of the following monuments was built by Muhammad Quli Qutb Shah?

Ans

$$
\begin{aligned}
& X_{1 . \text { Gol Gumbaz }} \\
& X_{\text {2. Charminar }} \\
& X_{4 . \text { Chowmahalla Palace }} \\
& \text { Warangal Fort }
\end{aligned}
$$

Question ID : 26433089196
Option 1 ID : 264330350303
Option 2 ID : 264330350304
Option 3 ID : 264330350301
Option 4 ID : 264330350302
Status : Not Answered
Chosen Option : _-
Q. 12 Which of the following is the correct sentence about the mitotic cell division?
$X$ 1. Chromosomes divide in a manner that the daughter cells receive high amounts of hereditary matter.
2. Chromosomes divide in a manner that the daughter cells receive identical amounts
of hereditary matter.
$X$ 3. Chromosomes divide in a manner that completely different daughter cells receive unidentical amount hereditary matter.
X 4. Chromosomes divide in a manner that the daughter cells receive less amounts of hereditary matter.
Q. 13 Pandit Shivnath Mishra, Padma Shri Awardee in 2022, is well known for his contribution to which of the following musical instruments?

Ans

1. Sitar
$x_{2 \text {. Surbahar }}$
$x_{3 . \text { violin }}$
$x_{4 \text {. Mandolin }}$
Q. 14 While Proclamation of emergency is in operation, the term of the Lok Sabha can be extended for a period not exceeding $\qquad$ at a time.
X 1. six weeks
X 2. six months
2. one year

X4. three months

Question ID : 264330130486
Option 1 ID : 264330511055
Option 2 ID : 264330511057
Option 3 ID : 264330511058
Option 4 ID : 264330511056
Status: Answered
Chosen Option : 3
Ans
Q. 15 Which of the following risks, with reference to the usage of technology during green revolution,
was significantly reduced by the services provided by the research institutes established by the
government? Ans $\quad X_{1}$. Regional disparities
$\chi_{\text {2. Inter-crop imbalances }}$
$X_{\text {3. Increase in income inequalities }}$
4. Pest attacks
Q. 16 In which year was India's first paperless budget presented in the Parliament?

Ans
$\chi_{1.2022}$
$X_{2.2020}$
$X_{3.2019}$
4.2021

Question ID : 264330109359
Option 1 ID : 264330429716
Option 2 ID : 264330429714
Option 3 ID : 264330429713
Option 4 ID : 264330429715
Status : Not Answered
Chosen Option : --
Q. 17 In August 2022, Shri Jagdeep Dhankhar took over as the 14th Vice President of India and Chairman of Rajya Sabha. Which of the following posts has he NOT served earlier?

Ans

1. President of the Rajasthan Cricket Association
$\chi_{\text {2. Governor of West Bengal }}$
X 3. Minister of State for Parliamentary Affairs
$X_{\text {4. MP, Jhunjhunu, Rajasthan }}$
Question ID : 264330156988
Option 1 ID : 264330615330
Option 2 ID : 264330615327
Option 3 ID : 264330615329
Option 4 ID : 264330615328
Status: Not Answered
Chosen Option : _-
Q. 18 At which place was Indi施 first Grass Conservatory launched by the Research Wing of the Uttarakhand Forest Department in November 2021?
2. Ranikhet

X 2. Mussoorie
X 3. Haridwar
X 4. Dehradun
Q. 19 Identify which of the following statements about Tata Iron and Steel plant are correct.

1. It is lies very close to the Mumbai-Kolkata railway line and about 240 km away fromKolkata.
2. The rivers Subarnarekha and Kharkai provide water to the plant.
3. The iron ore for the plant comes from Noamundi and Badam Pahar.
4. The Coking coal for the plant comes from Jharia and west Bokaro coalfields.

Ans

1. 1, 2, 3 and 4
$X_{2.2}$ and 3 only
$X_{3.1,3}$ and 4 only
$X_{4.1,2}$ and 3 only
Q. 20 Which hard, rubbery and elastic material has the ability to stretch and rise due to the action of baking powder or yeast?
2. Gluten
$X$ 2. Gelatine
X 3. Secalin
X 4. Hordein

Ans
Q. 21 Which of the following is the style of temple architecture popular in northern India?

Ans
$X_{1 .}$ Mandapa
$X_{\text {2. Dravida }}$
3. Nagara
$X_{4 . \text { Vimana }}$

```
Q. }22\mathrm{ How much wage compensation per trainee is provided under PM DAKSH Yojana including Common Cost
    Norms for trainees having 80% and above attendance in Reskilling/Upskilling?
Ans
X 1. ₹2,000
    2. ₹3,000
    X 3. ₹5,000
        X 4. ₹4,000
```

Q. 23 Match the columns.

Names of Cyclones
i. Cyclone Tauktae
ii. Cyclone Yaas
iii. Hurricane Katrina
iv. Hurricane Ingrid

Water body from where they developed
a. Bay of Bengal
b. Gulf of Mexico
c. Arabian Sea
d. Atlantic Ocean

Ans
X 1. i-d, ii-c, iii-b, iv-a
2. i-c, ii-a, iii-d, iv-b

X 3. i-c, ii-d, iii-b, iv-a
X 4. i-c, ii-d, iii-a, iv-b

Question ID : 264330138009
Option 1 ID : 264330540646
Option 2 ID : 264330540643
Option 3 ID : 264330540645
Option 4 ID : 264330540644
Status : Not Answered
Q. 24 In which Province of India was the Bardoli Satyagraha launched?

Ans
$X_{1 . \text { Bihar }}$
2. Gujarat
$X_{\text {3. Kerala }}$
$X_{4 . \text { Tamil Nadu }}$
Q. 25 Who among the following become the first Indian player to get elected in the Athletes' Commission of the International Table Tennis Federation (ITTF)?

Ans
X 1 . Omar Assar
X 2. Kamlesh Navichandra Mehta
$\chi_{\text {3. Sathiyan Gnanasekaran }}$
4. Sharath Achanta Kamal
Q. 26 How many members signatures are required to initiate the impeachment process against the President of India.

X 1. In case of Rajya Sabha i.e. $1 / 4$ members, in case of Lok Sabha $1 / 3$ members
X 2. In case of Lok Sabha 100 members, in case of Rajya Sabha 50 members
3. 1/4 members of the impeaching house either Lok Sabha or Rajya Sabha

X 4. 1/3 members of the impeaching house either Lok Sabha or Rajya Sabha

Question ID : 264330119645
Option 1 ID : 264330468857
Option 2 ID : 264330468858
Option 3 ID : 264330468856
Option 4 ID : 264330468855
Status: Answered
Chosen Option : 3
Ans
Q. 27 How can you insert a new row or column MS Excel?

X 1. Use the 'Copy' and 'Paste' options to insert data.
$X_{2}$. Apply a new cell style to the entire row or column
3. Right-click the row or column and choose 'Insert'.
$\chi_{4}$. Select a row or column and press the 'Enter' key.

Question ID : 264330168594
Option 1 ID : 264330661189
Option 2 ID : 264330661190
Option 3 ID : 264330661188
Option 4 ID : 264330661187
Status: Not Attempted and Marked For Review
Q. 28 What is the diameter of the largest lens objective used at Yerkes Observatory in Wisconsin,

USA?
Ans $\times 1.60$ inches
$\times 2.70$ inches
$\times 3.30$ inches
*. 40 inches
Q. 29 Bagurumba is a folk dance of which tribe of Assam?

Ans
$X 1$. Kachari
2. Bodo

X 3. Miri
X 4. Rabha

Question ID : 26433072627
Option 1 ID : 264330284771
Option 2 ID : 264330284768
Option 3 ID : 264330284769
Option 4 ID : 264330284770
Status : Not Answered
Chosen Option:-
Q. 30 Who invites the leader of the majority party to form the Government?

Ans
X 1. Chief Justice of India
X 2. Chief Secretary
X 3. Vice-President
4. President
Q. 31 The trial for Meerut conspiracy took place under whose Viceroyalty?

Ans $\times 1$. Lord Chelmsford
X 2. Lord Reading
3. Lord Irwin

X 4. Lord Harding
Q. 32 Which of the following statements is related to Garib Kalyan Rojgar Abhiyaan (GKRA)? Ans

1. It was started in 10 states.
$X_{\text {2. It provides } 135 \text { days employment. }}$
$X_{\text {3. It was launched in } 2018 .}$
$X_{4}$. It was started in 116 districts.
Question ID : 264330157097
Option 1 ID : 264330615762
Option 2 ID : 264330615760
Option 3 ID : 264330615759
Option 4 ID : 264330615761
Status: Not Answered
Chosen Option : _-
Q. 33 How many members were given the task of taking care of administration of the Mauryan army?
$\times 1.35$
$\times 2.25$

- 3.30
$\times 4.20$

Ans
Q. 34 According to which Article of the Indian Constitution is the population census a Union subject?

Ans

1. Article 246

X 2. Article 79
$X_{3 . \text { Article } 154}$
$\boldsymbol{X}_{\text {4. Article } 280}$

Match the following columns.

## Colum-A (Type of Forest)

i. Himalayan Coniferous
ii. Deciduous-Dry
iii. Mangrove Delta
iv. Evergreen North-east, Western Ghats
Q. 35

Ans

1. i-a, ii-c, iii-b, iv-d
$X_{2 . i-d, ~ i i-c, ~ i i i-b, ~ i v-a ~}$
$X_{3 . i-a, ~ i i-b, ~ i i i-c, ~ i v-d ~}$
$X_{4 . i-b, ~ i i-c, ~ i i i-d, ~ i v-a ~}$

## Column-B (Example of Plant)

a. Pine, deodar
b. Avicennia
c. Teak, Ain, Terminalia
d. Jamun, Ficus, Dipterocarpus

Question ID : 264330120048
Option 1 ID : 264330470448
Option 2 ID : 264330470450
Option 3 ID : 264330470447
Option 4 ID : 264330470449
Status : Not Answered
Q. 36 Which of the following statements are correct about western disturbances?

Statement 1. Western disturbances are storms that originate in the Caspian or
Mediterranean Sea, and bring non-monsoonal rainfall to northwest India.
Statement 2. The disturbance travels from the western to the eastern direction.
Statement 3. Western disturbances are storms that originate due to high pressure areas.
$X 1$. Only statements 2 and 3 are correct
2. Only statements 1 and 2 are correct

X 3. All statements 1,2 and 3 are correct
4. Only statements 1 and 3 are correct

Ans
Q. 37 What does data encryption involve?

Ans

1. Encoding data into a secret code

X 2. Converting data into a human-readable format
3. Compressing data to save storage space
$\chi_{\text {4. Deleting data permanently from storage }}$
Q. 38 Ali Ahmad Hussain Khan was an exponent of $\qquad$ -

Ans
$X 1$. flute
X 2. guitar
$X$ 3. been
4. shehnai

Question ID : 26433082119
Option 1 ID : 264330322311
Option 2 ID : 264330322310
Option 3 ID : 264330322312
Option 4 ID : 264330322309
Status : Not Answered
Chosen Option:--
Q. 39 The number of participant countries in thefirst Asian Games was $\qquad$ .
Ans $\times 1.9$
$\times 2.12$

- 3.11
$\times 4.10$

Question ID : 264330110336
Option 1 ID: 264330433621
Option 2 ID : 264330433624
Option 3 ID : 264330433623
Option 4 ID : 264330433622
Status : Not Answered Chosen Option: --
Q. 40 As per the provisionalfigures of the 2011 census, the literacy rate has registered an increase of $\qquad$ percentage points since 2001.
Ans
X 1.11 .01

- 2. 9.21
$\times 3.13 .20$
$\times 4.7 .48$
Q. 41 Identify the group of peninsular rivers.

Ans
X 1. Narmada, Ghaghara, Krishna, Gandak
X 2. Tapi, Ravi, Godavari, Krishna
3. Mahanadi, Godavari, Krishna, Kaveri

X 4. Narmada, Beas, Son, Godavari
Q. 42 Which of the following rivers falls into the Arabian sea?

Ans $\quad \times$ 1. Ganga
2. Narmada

X 3. Godavari
X 4. Kaveri
Q. 43 Which of the following Articles of the Constitution of India guarantees equality of opportunity in matters of public employment?

Ans

1. Article 16

X 2. Article 21
× 3. Article 35
X4. Article 45
Q. 44 Which disease is transmitted to humans by alavivirus that can cause irflammation in the brain?

Ans
X 1. Leptospirosis
2. Japanese encephalitis

X 3. Anthrax
X 4. Candidiasis
Q. 45 Guru Vempati Chinna Satyam, a Padma Bhushan awardee, is well recognized for his efforts for getting classical status to which of the following dance forms?

Ans

1. Kuchipudi

X 2. Odisi
X 3. Manipuri
X4. Kathakali
Q. 46 In March 2023, how many PM MITRA (Pradhan Mantri Mega Integrated Textile Region and Apparel) Park sites were announced?

Ans
$X_{1 . \operatorname{Six}}$
2. Seven
$x_{3 \text {. Five }}$
$x_{4 . \text { Eight }}$
Q. 47 Which of the following is a secondary function of money? Ans

X1. Helping in conducting transactions in an economy
1 2. Calculating relative prices of goods and services
3. Being a standard of deferred payments
$\chi_{\text {4. Allowing purchase and sale to be conducted independently }}$
Q. 48 Select the correct plot of ideal gas in the giverfigure.

##  <br> 1.d <br> X2.a <br> $\times 3$. с <br> $\times 4 . \mathrm{b}$

Q. 49 Where did Lord Wavell call a conference between Congress and Muslim League leaders to reach an agreement?

Ans
X 1. Lucknow
X 2. Delhi
X 3. Calcutta

- 4. Simla
Q. 50 According to the Census of India 2011, Indi'd decadal growth rate was $\qquad$ .

Ans

- $1.17 .7 \%$

X 2. 16.7\%
X 3.19.7\%
X4.18.7\%

Question ID : 264330119811
Option 1 ID : 264330469521
Option 2 ID : 264330469522
Option 3 ID : 264330469519
Option 4 ID : 264330469520
Status: Not Answered
Chosen Option : _-

Section : General Engineering Civil and Structural
Q. 1 The bearings of two lines $A B$ and $A C$ measured by using a surveytsrcompass are $S 26^{\circ} 40$ $E$ and $N 18^{\circ} 30 \mathrm{~W}$, respectively. The value of $\angle B A C$ measured in clockwise direction is

Ans
$\times 1.135^{\circ} 10^{\prime}$
$\times 2.134^{\circ} 10^{\prime}$
2. $188^{\circ} 10$
$\times 4.189^{\circ} 10^{\prime}$
Q. 2 Which of the following is a type of pump based on the type of power?

Ans
X 1. Centrifugal pump
X 2. Low-lift pump
X 3. High-lift pump
4. Steam engine pump

Question ID : 264330158973
Option 1 ID : 264330623253
Option 2 ID : 264330623251
Option 3 ID : 264330623252
Option 4 ID : 264330623254
Status: Answered
Chosen Option : 1
Q. 3 Which of the following is an example of sedimentary rock?

Ans
X 1. Pumice
2. Sandstone

X 3. Black flint
X 4. Basalt
Q. 4 In an old plan, a line was drawn to a magnetic bearing of $7^{\circ} 25$ with a magnetic declination of $2^{\circ} 5^{\prime}$ west. If the present magnetic declination is $9^{\circ} 40 w e s t$, then the new magnetic bearing should be drawn at $\qquad$ .

Ans
$\times 1 .-4^{\circ} 20^{\prime}$
X 2. $-15^{\circ}$
$\times 3.4^{\circ} 20^{\prime}$

- $4.15^{\circ}$
Q. 5 For which of the following applications in levelling is an inverted staff reading most suitable?

Ans

1. Levelling across a wall
2. Levelling across an intervening, high or low ground

X 3. Levelling across a lake
X 4. Levelling across a steep slope
Q. 6 The difference between the total head line and the hydraulic grade line in an open-channel
flow is called:
Ans

1. velocity head
$X$ 2. total energy head
$X$ 3. pressure head
$\times$ 4. elevation head
Q. 7 Which of the following is NOT a natural source of air pollution?

Ans
X 1. Volcanic gases
$X$ 2. Pollens
3. Combustion of fossil fuels

X 4. Wildfire by atmospheric temperature change
Q. 8 As per IS 2386 (1963), the aggregate crushing value is calculated by using a single sized aggregate, which is:
Ans $\quad X$ 1. passing 40 mm and retained on 20 mm sieve
X 2. passing 20 mm and retained on 10 mm sieve
3. passing 12.5 mm and retained on 10 mm
sieve
4. passing 4.75 mm and retained on 2.36 mm sieve
Q. 9 Which of the following statements is INCORRECT about the grading limits of fine aggregates?

Ans $\quad X_{1}$ IS 383 defines the grading zones of fine aggregates.
$X_{2 .}$ Zone II corresponds to normal sand.
3. There are 3 grading zones as per IS 383-2016.
$X_{4}$. Zone III corresponds to finer sand than Zone II.
Question ID : 264330157674
Option 1 ID : 264330618055
Option 2 ID : 264330618056
Option 3 ID : 264330618057
Option 4 ID : 264330618058
Status: Answered
Chosen Option : 3
Q. 10 Select the correct option for the given statements.

Statement 1: Runoff is a function of precipitation, intensity, duration and its coverage
Statement 2: The size of catchment has a definite effect on the runoff. More the area, lesser will be the runoff

Х 1. Both statement 1 and statement 2 are true
2. Statement 1 is false and statement 2 is true
3. Statement 1 is true and statement 2 is false

Х 4. Both statement 1 and statement 2 are false

Ans
Find the value of shear force at one-fourth of the given span from the left support as shown in the below diagram.

Q. 11
$X 1 \cdot \frac{M}{2 L}(+v e)$
$\times 2 \cdot \frac{\mathrm{M}}{2 \mathrm{~L}}(-\mathrm{ve})$
$\times$ 3. $\frac{\mathrm{M}}{\mathrm{L}}(+\mathrm{ve})$
4. $\frac{\mathrm{M}}{\mathrm{L}}(-\mathrm{ve})$
Q. 12 Which material is used for shuttering equipment, that require very little maintenance and can be used for years?

Ans
X 1. Epoxy ply
X 2. Timber
3. Steel

X 4. Pressed board
Q. 13 As per IS 1203-1978 in the penetration test of bitumen, a standard tapered needle is used to calculate:

Ans
X 1. softening point
2. consistency of the bitumen binder

X 3. the required quantity of colour
X 4. binder capacity
Q. 14 The check for traversing by defection angle method in a closed traverse of n sides is:

Ans

1. the sum of angles must be equal to $360^{\circ}$
(2. the sum of angles must be equal to $(2 n-4)^{\circ}$

X 3. the sum of angles must be equal to $180^{\circ}$
X4. the sum of angles must be equal to $(2 n+4)^{\circ}$
Q. 15 In the case of a $\qquad$ the brickwork is not measured in cubic metres.
Ans
X 1. brickwork in arches
2. half-brick wall

X 3. one and more than one brick wall
X 4. reinforced brickwork
Q. 16 What should be the unit of measurement for earthwork in excavation in any type of soil and honeycomb brick work?

Ans
$X_{1 . m \text { and } m^{2}}$
$X_{2 . m^{2} \text { and } m^{2}}$
3. $\mathrm{m}^{3}$ and $\mathrm{m}^{2}$
$X_{4 . m^{3} \text { and } m}$
Question ID : 264330159840
Option 1 ID : 264330626709
Option 2 ID : 264330626707
Option 3 ID : 264330626710
Option 4 ID : 264330626708
Status: Answered
Q. 17 DDT belongs to the category of $\qquad$ Ans
$X_{1}$. non-persistent pollutants
X 2. primary air pollutants
3. persistent pollutants
$\chi_{\text {4. secondary air pollutants }}$
Q. 18 The processes used for the manufacture of cement can be clasfied into $\qquad$ types.
$X$ 1. three
2. two
$\times$ 3. five
$X$ 4. four
Q. 19 Which of the following statement for the included angle method is/are true?

Statement 1: Included angles can be measured either clockwise or counter-clockwise. Statement 2:
The measured clockwise angles are interior angles if the direction of progress around the survey is
counter-clockwise. Ans $\quad X_{1}$. Only Statement 1 is true.
$X_{2}$. Only Statement 2 is true.
3. Both Statements 1 and 2 are true.
$\chi_{4}$. Neither Statement 1 nor Statement 2 is true.
Q. 20 Offsets from the tangents method of curve setting can be adopted if $\qquad$ .
$X 1$. the deflection angle is large and the radius of curvature is small
2. both the deflection angle and the radius of curvature are small
3. both the deflection angle and the radius of curvature are large

X 4. the deflection angle is small and the radius of curvature is large

Question ID : 264330160620
Option 1 ID : 264330629813
Option 2 ID : 264330629811
Option 3 ID : 264330629812
Option 4 ID : 264330629814
Status: Answered
Chosen Option : 4

## Ans

Q. 21 Consider the following statements regarding, the function of base course and sub-base course in
pavement layers:
i.Prevent mud-pumping in rigid pavement ii.Protect sub-
grade of rigid pavement from frost action iii. Provide tensile
strength to the flexible pavement iv.Distribute the load in
flexible pavement
v.Prevent warping stresses in rigid pavement.

Which of the above statements are correct? Ans

1. Only i, ii and iv

X 2. Only i, ii and v
$X_{3}$. Only ii, iii and $v$
$X_{\text {4. Both }}$ ii and iv
Q. 22 A centrifugal pump, driven by a directly coupled 2 kW motor of speed 1400 rpm , is proposed to be connected to a motor of speed 2800 rpm . The power of the motor should be:

Ans
$X_{1.24 \mathrm{~kW}}$
$X_{2.4 \mathrm{~kW}}$
$X_{3.8 \mathrm{~kW}}$
4.16kW
Q. 23 Select the option that is appropriate regarding the following two statements labelled Assertion and Reason.
Assertion: A loose, permeable, sandy soil has a higher ifiltration capacity than that of a tight, clayey soil.
Reason: A soil with poor under-drainage has a higher ifilltration capacity
X 1. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
2. Assertion is true, but Reason is false.

X 3. Both Assertion and Reason are true and Reason is the correct explanation of Assertion.

X 4. Both Assertion and Reason are false.
Q. 24 Which of the following does NOT represent the grade of Bitumen based on viscosity?

Ans
1.VG-50
$X_{2 . v g-40}$
$X_{3 . v g-20}$
$X_{4 . \mathrm{VG}-30}$
Q. 25 The ratio $\mathrm{Nc} / \mathrm{Nq}$ for a purely cohesive soil is $\qquad$
( $\mathrm{N}_{\mathrm{c}}$ and $\mathrm{N}_{\mathrm{q}}$ are Terzaghi bearing capacity factors)
Ans

1. 5.7
$X_{2.2 .57}$
$X_{3.5 .14}$
$X_{4.2 .85}$
Q. 26 Which of the following statements is INCORRECT?
2. Graphically, the relation between the strength of concrete and the water-cement ratio
is approximately cubic.
Х 2. The lower the water-cement ratio is, the higher will be the strength of concrete
X 3. Lower water-cement ratio is required when the concrete mix is mechanically
compacted to achieve higher strength as compared to the hand-compacted concrete mix with higher water-cement ratio.
X 4. Lower water-cement ratio leads to lower workability.

Option 1 ID : 264330618133
Option 2 ID : 264330618132
Option 3 ID : 264330618131
Option 4 ID : 264330618134
Status: Answered
Chosen Option : 4

## Ans

Q. 27 Match the basic terms used in the runoff given in the first column with their meanings in the second column.

| A. Surface runoff | 1. Delayed sub-surface flow at shallow depth |
| :--- | :--- |
| B. Interflow | 2 . Unconfined flow of water over the ground surface |
| C. Base flow | 3. Portion of water that moves laterally in the upper part of the soil |

Ans

1. $\mathrm{A}-2, \mathrm{~B}-3, \mathrm{C}-1$
$X_{\text {2. A-1, B-3, C-2 }}$
( ${ }_{\text {3. A-1, }}$ B-2, C-3
$X_{4 . A-2, B-1, ~ C-3}$
Q. 28 Direct stress due to self-weight and extreme bending stress at the base of a masonry dam is given as
$22 \mathrm{~N} / \mathrm{mm}^{2}$ and $44 \mathrm{~N} / \mathrm{mm}^{2}$, respectively. Determine the value of extreme resultant stresses.

Ans

1. Max. stress $=66 \mathrm{~N} / \mathrm{mm}^{2}$, Min. stress $=-22 \mathrm{~N} / \mathrm{mm}^{2}$
2. Max. stress $=44 \mathrm{~N} / \mathrm{mm}^{2}$, Min. stress $=-66 \mathrm{~N} / \mathrm{mm}^{2}$
(3. Max. stress $=66 \mathrm{~N} / \mathrm{mm}^{2}$, Min. stress $=22 \mathrm{~N} / \mathrm{mm}^{2}$
(4. Max. stress $=44 \mathrm{~N} / \mathrm{mm}^{2}$, Min. stress $=22 \mathrm{~N} / \mathrm{mm}^{2}$
Q. 29 Calculate the approximate mass density of oil with 4.5 m of volume and 40 kN of weight (Consider $g=10 \mathrm{~m} / \mathrm{s}^{2}$ )
Ans
$\times 1.850 \mathrm{~kg} / \mathrm{m}^{3}$

- $2.889 \mathrm{~kg} / \mathrm{m}^{3}$

X $3.809 \mathrm{~kg} / \mathrm{m}^{3}$
X $4.920 \mathrm{~kg} / \mathrm{m}^{3}$
Q. 30 In case of staggered or zigzag riveting in the design of tension members of steel structures, the net cross-
sectional area along the chains of rivets is:
$X$ 1. increased by an amount equal to $\frac{s^{2} t}{8 g}$
Ans
2. increased by an amount equal to $\frac{\mathrm{s}^{2} \mathrm{t}}{4 \mathrm{~g}}$
$\times$ 3. decreased by an amount equal to $\frac{s^{2} t}{4 g}$
$\times$ 4. decreased by an amount equal to $\frac{s^{2} t}{8 g}$
Q. 31 The quantity of water in a reservoir, which cannot be utilised under normal operating conditions and is stored below the minimum pool level, is known as $\qquad$ —.

Ans
$X_{1 .}$ valley storage
2. dead storage
$X_{\text {3. surcharge storage }}$
$X_{\text {4. live storage }}$
Q. 32 As per the Indian Railways, the gauge is defined as:

Ans
$X_{1 \text {. the length of the sleeper-width of the sleeper }}$
2. the clear distance between inner faces of two track rails

X 3. the clear distance between outer faces of two track rails
$X_{\text {4. the centre to centre distance of two track rails }}$
Q. 33 Dupit's equation is expressed for series-connected pipes as:
(where L1, L2, and L3 are lengths of pipe 1,2 and $3, d 1, d 2, d 3$ are diameter of pipe 1,2 and
$3, L$ is equivalent length of pipe are $D$ is equivalent diameter of pipe
$X_{1 .} \mathrm{L} / \mathrm{d}^{5}=\mathrm{L}_{1} / \mathrm{d}_{1}{ }^{5}-\mathrm{L}_{2} / \mathrm{d}_{2}{ }^{5}-\mathrm{L}_{3} / \mathrm{d}_{3}{ }^{5}$
2. $\mathrm{L} / \mathrm{d}^{5}=\mathrm{L}_{1} / \mathrm{d}_{1}{ }^{5}+\mathrm{L}_{2} / \mathrm{d}_{2}{ }^{5}+\mathrm{L}_{3} / \mathrm{d}_{3}{ }^{5}$

X 3. $\mathrm{L} / \mathrm{d}^{5}=\mathrm{L}_{1} / \mathrm{d}_{1}{ }^{5}-\mathrm{L}_{2} / \mathrm{d}_{2}{ }^{5}$
X $4 . \mathrm{L} / \mathrm{d}^{6}=\mathrm{L}_{1} / \mathrm{d}_{1}{ }^{6}+\mathrm{L}_{2} / \mathrm{d}_{2}{ }^{6}+\mathrm{L}_{3} / \mathrm{d}_{3}{ }^{6}$
Q. 34 Which of the following laboratory methods is more suitable to determine the permeability of less permeable soils?

Ans
$\chi_{1}$. Constant head test
2. Unconfined flow pumping test
3. Falling head test
$\chi_{\text {4. Confined flow pumping test }}$
Question ID : 26433099690
Option 1 ID : 264330391357
Option 2 ID : 264330391360
Option 3 ID : 264330391358
Option 4 ID : 264330391359
Status: Answered
Chosen Option : 3
Q. 35 The constituents of paint in suspension are held by which vehicle that also help in its evenly distribution?
$\times 1$. Base
X 2. Pigments
X 3. Plaster of Paris
4. Binder

Question ID : 26433099382
Option 1 ID : 264330390141
Option 2 ID : 264330390143
Option 3 ID : 264330390142
Option 4 ID : 264330390144
Status: Answered
Chosen Option : 4
Ans
Q. 36 Identify water-borne diseases from the following
I. Typhoid
II. Hepatitis
III. Malaria

Ans
$X_{1}$. Only I and III
X . Only II and II
$X_{3 . \text { Only }}$
4. Only I and II

Q． 37 The mechanical device which is used to measurflow velocity，where the number of revolutions of the wheel per unit time are proportional to the velocity of th⿴囗⿱一一儿丶 lowing water is the $\qquad$
Ans
X 1．float
X 2．rotameter
3．current meter
4．pitot tube

Q． 38 Salvage value is the $\qquad$ of an asset after all depreciation has been fully expensed．
Ans
$X$ 1．depreciation
2．book value
$X$ 3．scrap value
X 4．market value

Q． 39 Silt ejector is provided $\qquad$
Ans $\quad \times 1$ ．in the river adjacent to the head regulator
$X$ 2．in the river far off from the weir on the upstream side
$X$ 3．in the river on the downstream of the weir
4．in the canal on the downstream of head regulator

Question ID ： 26433099455
Option 1 ID ： 264330390435
Option 2 ID ： 264330390436
Option 3 ID ： 264330390434
Option 4 ID： 264330390433

Q． 40 A road pavement should have which of the following qualities？
Ans
$X 1$ ．Yielding
$X$ 2．Undulation
3．Non yielding
X 4．Deflection
Q. 41 Which of the following options explain the effect of cold weather on concrete?
(i) Delay in setting and hardening
(ii) Freezing of concrete at early age
(iii) Alternate Freezing and ThawingAns $\quad X_{1}$. Both (ii) and (iii)
2. (i), (ii), and (iii)
$X_{\text {3. Both (i) and (ii) }}$
$X_{\text {4. Only (i) }}$
Q. 42 As per IS 11624-1986, what will be the water quality rating of irrigation water when residual sodium carbonate (RSC) is in the range of 1.5 to 3 ?
X 1. High
$X$ 2. Very high
2. Medium
$\times$ 4. Low

Question ID : 264330157865
Option 1 ID : 264330618821
Option 2 ID : 264330618822
Option 3 ID : 264330618820
Option 4 ID : 264330618819
Status : Answered
Chosen Option : 4
Ans
Q. 43 Select the option that is appropriate regarding the following two statements labelled Assertion and Reason.
Assertion: Good-quality irrigation water is one of the favourable conditions for sub-surface irrigation practice.
Reason: Irrigation water of bad quality may block the buried perforated pipes in artificial sub-surface irrigation.
Ans1.
Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
$X_{\text {2. Both Assertion and Reason are false }}$
X 3. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
$X_{4 \text {. Assertion is true, but Reason is false. }}$
Q. 44 Select the correct option for the given statements.

Statement 1: When the crossing site is such that the canal FSL is well above the stream HFL, the
choice between aqueduct and siphon aqueduct is made depending on the stream discharge.
Statement 2: For larger stream discharges (i.e. when the stream bed is much wider), an aqueduct is more suitable than a siphon aqueduct which requires lowering of the stream bed by a drop
Ans1.


Both statement 1 and statement 2 are true, and statement 2 is the correct explanation of statement 1
$X_{\text {2. Statement }} 1$ is false and statement 2 is true
X 3. Both statement 1 and statement 2 are true, but statement 2 is not the correct explanation of statement 1
$X_{4 . S t a t e m e n t ~} 1$ is true and statement 2 is false
Q. 45 In India, the authority to issue the environmental no objection cerfficate to start an industry lies with the $\qquad$
$X$ 1. Central Government
2. Pollution Control Board
$X$ 3. Forest Department
X 4. State Government

Question ID : 264330160681
Option 1 ID : 264330630058
Option 2 ID : 264330630056
Option 3 ID : 264330630057
Option 4 ID : 264330630055
Status: Answered
Chosen Option : 2
Ans
Q. 46 The dimension of Manning's roughness coefficient ' $n$ ' is:

Ans
$\chi_{1 . L-1 / 6 T-1}$
2. $\mathrm{L}-1 / 3 \mathrm{~T}$
$X_{3 . L-2 / 3 T}$
$X_{4 . L-1 / 2 T-2}$
Question ID : 264330158923
Option 1 ID : 264330623053
Option 2 ID : 264330623051
Option 3 ID : 264330623052
Option 4 ID : 264330623054
Status: Answered
Chosen Option :
Q.47 As per components of the sewerage system, what is the meaning of 'outfall sewer'?

Ans


X 2. A sewer which transports sewage from a house to lateral sewers
X 3. A sewer which transports sewage from a lateral sewer to a branch sewer
X. A sewer which transports sewage from a branch sewer to the main sewer

Question ID : 26433099415
Option 1 ID : 264330390274
Option 2 ID : 264330390273
Option 3 ID : 264330390275
Option 4 ID : 264330390276
Status: Not Attempted and Marked For Review
Chosen Option : _-
Q. 48 The foundation of the structure is designed for: Ans

1. shear failure of soils
$X_{\text {2. compression }}$ failure of soils
$X_{\text {3. bending failure of soils }}$
$\chi_{\text {4. tension }}$ failure of soils
Q. 49 If a compression member of a steel structure is effectively held in position and restrained against rotation at both the ends, then which of the following options represents the effective length of the member?

X 1.2 .0 times of the actual length
2. 0.65 times of the actual length

X 3.1.2 times of the actual length
X 4. 0.80 times of the actual length
Q. 50 Before stone seasoning, dressing of stones is done as it provides:
i. uniform appearance ii.
good mortar joints iii.
proper bedding iv. poor
water absorption
Ans
$X_{\text {1. (i), (ii), (iii), (iv) }}$
$X_{2 .}$. Only (i) and (ii)
3. Only (i), (ii) and (iii)
$X_{4 \text {. Only (i) }}$
Question ID : 26433088072
Option 1 ID : 264330345902
Option 2 ID : 264330345903
Option 3 ID : 264330345901
Option 4 ID : 264330345904
Status: Answered
Chosen Option :
Q. 51 Level surface in terms of leveling is a

X 1. vertical surface
X 2. horizontal surface
X 3. datum surface

- 4. curved surface

Question ID : 264330100670
Option 1 ID : 264330395227
Option 2 ID : 264330395226
Option 3 ID : 264330395228
Option 4 ID : 264330395225
Status: Answered
Chosen Option : 4

Ans
Q. 52 Which of the given options is NOT a commonly used minor method of disinfection of water during its treatment process?

Ans
$X_{1}$. Boiling of water
$X_{2 .}$. Treatment with iodine and bromine
3. Treatment with silica
$X_{4}$. Treatment with ozone
Q. 53 Blaine air permeability apparatus is used to determine the $\qquad$ of Portland cement.
Ans $\quad \times 1$. permeability
$X 2$.gradation
X 3. specific gravity
4. fineness
Q. 54 Which of the following factors does NOT contribute to soil/land pollution?

Ans
$X$ 1. Mining wastes
X 2. Agricultural activities
2. Eutrophication

X 4. Domestic wastes
Q. 55 Silt content infine aggregates leads to $\qquad$ -.
Ans

1. increased shrinkage
$X$ 2. increased durability
$X$ 3. excellent bond characteristics
X 4. decreased permeability
Question ID : 264330157675
Option 1 ID : 264330618059
Option 2 ID $: 264330618062$
Option 3 ID $: 264330618060$
Option 4 ID : 264330618061
Status : Answered
Chosen Option : 4
Q. 56 The science that deals with the occurrence, circulation and distribution of water of the earth and the earth's atmosphere is known as $\qquad$ -.
Ans
$X$ 1. oceanography
2. hydrology
$X$ 3. hydraulics
X 4. environment
Q. 57 Hook length for a straight bar in terms of the diameter of bar, $d$ is:

Ans
X 1.18 d
2.9d
<3.D
X4.4.5d
Q. 58 Which of the following methods of quarrying is suitable for costly, soft and straftied rocks such as sandstone, limestone, laterite, marble and slate?

Ans
$\times 1$. Heating
2. Wedging

X 3. Blasting
X4. Excavating
Q. 59 As per IS 2470 codes, which of the following should be the minimum width of a septic tank for five users?

Ans

- 1.75 cm
$\times 2.85 \mathrm{~cm}$
$\times 3.55 \mathrm{~cm}$
X 4.60 cm
Q. 60 In a fillet welded connection of steel structures, the sides containing the right angle of the fillet are called $\qquad$ _.

Ans
< 1. roots
2. legs
$\times 3$. toes
X 4. throats
Q. 61 Traffic engineering does NOT include which of the following?
i. Geometric design ii. Traffic
studies and analysis iii. Road
user characteristics iv. Marshall
mix design

Ans
$X_{1 .}$ Only iii
2. Both i and iv

X Only i
-4. Only iv
Question ID : 26433086550
Option 1 ID : 264330339844
Option 2 ID : 264330339842
Option 3 ID : 264330339841
Option 4 ID : 264330339843
Status: Answered
Chosen Option :
Q. 62 The system of signal in which clusters of signals along a route display an opposite indication at the same moment is called $\qquad$ —.

X 1. simultaneous system
X 2. flexible progressive system
X 3. simple progressive system

- 4. alternate system

Question ID : 264330157186
Option 1 ID : 264330616107
Option 2 ID : 264330616110
Option 3 ID : 264330616109
Option 4 ID : 264330616108
Status: Answered
Chosen Option : 3

Ans
Q. 63 Proctor compaction test is made to determine moisture content at which soil will be compacted to obtain $\qquad$ -.

Ans
$X_{1}$. porocity
$\chi_{\text {2. minimum dry density }}$
3. maximum dry density
$X_{4 . \text { specific gravity }}$
Q. 64 According to IS 456:2000, value of design bond stress for plain bars shall be increased by \% for deformed bars conforming to IS 1786.
Ans
$\times 1.25$
$\times 2.40$
-3.60
$\times 4.10$
Q. 65 Shelby tube is one of the most widely used devices for:

Ans $\quad \times 1$. wash borings and drilling cobbles
X 2. measuring effective stress and plotting Mohr envelope
3. collecting undisturbed soil samples

X 4. drilling rocks

Question ID : 26433096816
Option 1 ID : 264330380003
Option 2 ID : 264330380002
Option 3 ID : 264330380004
Option 4 ID : 264330380001
Status : Not Answered
Chosen Option:--
Q. 66 In which type of dressing are only the edges of a stone block levelled with the help of a hammer?

Ans

1. Pitched dressing
× 2. Rough tooling
X 3. Chisel drafting
X 4. Hammer dressing
Q. 67 Which of the following methods are not used for the analysis and design of watertanks?

Ans
X 1. Reissner's method

- 2. Rankine method

X 3. BIS code method
X 4. Carpenter's simplified method
Q. 68 If the $30^{\text {th }}$ highest hourly volume is adopted for design, there will be congestion on road for only:

Ans
$X_{1.30}$ hours in a year
2. 29 hours in a year

X 3.70 hours in a year
$X_{4.0}$ hours in a year
Q. 69 Which of the following sections is ideally suited for a compression member?

X 1. Section with different moment of inertia about perpendicular axis passing through its centre of gravity
2. Section with same moment of inertia about perpendicular axis passing through its centre of gravity

X 3. Section with high amount of material unevenly distributed
X 4. Section with larger length
Question ID :264330100831
Option 1 ID $: 264330395870$
Option 2 ID $: 264330395872$
Option 3 ID $: 264330395871$
Option 4 ID :264330395869
Status : Answered
Chosen Option $: 2$

Ans
Q. 70 The kinetic head of water flowing through a pipe of diameter 60 cm is 4 m , whereas the total head of the water at a cross-section, which is 6 m above the datum line, is 60 m . Determine the pressure head of water.

Ans
1.50 m
$X_{2.56 m}$
$\times 3.48 \mathrm{~m}$
$X_{4.60 \mathrm{~m}}$
Q. 71 As per IS 486:2000, in reinforced and plain concrete footings, the thickness at the edge of the footing shall not be less than $\qquad$ for footings on soils.

Ans
$X_{1.120 \mathrm{~mm}}$
$X_{2.125 \mathrm{~mm}}$

- 3.150 mm
$X_{4.100 \mathrm{~mm}}$
Question ID : 26433099434
Option 1 ID : 264330390351
Option 2 ID : 264330390352
Option 3 ID : 264330390349
Option 4 ID : 264330390350
Status: Answered
Chosen Option : 3
Q. 72 Which of the following methods can be used to lower the water table by using gravity flow? Ans

1. Well point system
$X_{\text {2. Dehydration }}$
$X_{\text {3. Dewatering }}$
$X_{4 \text {. Water suction method }}$
Q. 73 Find the bending moment at a distance $L / 4$ from end $A$ of the simply supported beam as shown below.


X 1. Zero
2. $\frac{3 . \mathrm{wL}^{2}}{32}$

X 3. $\frac{w^{2}}{8}$
$\times$ 4. $\frac{w L^{2}}{32}$
Q. 74 The coefficient of discharge ( $\mathrm{C}_{\mathrm{d}}$ ) in terms of the coefficient of velocity ( CV ) and the coefficient of contraction (Cc) is:

Ans
$X_{1 .} C_{d}=C_{c} / C_{V}$
$X_{2 .} C_{d}=C_{V} / C_{c}$
2. $\mathrm{C}_{d}=\mathrm{CV}_{V} \times \mathrm{Cc}_{\mathrm{c}}$
(4. $\mathrm{C}_{\mathrm{d}}=\mathrm{Cl}_{\mathrm{V}}+\mathrm{C}_{\mathrm{C}}$
Q. 75 The absence of a bond between reinforcing steel and surrounding concrete in a RCC beam will result in:
X 1. zero axial stress at all points in a straight bar
X 2. linear variation of axial stress in a straight bar
3. constant stress at all points in a straight bar

X 4. parabolic variation of axial stress in a straight bar
Q. 76 Which of the following stresses is mainly responsible for the stability of a masonry chimney?

Ans

1. Tensile stresses due to earthquake
$X_{\text {2. Shear stress due to wind pressure }}$
X 3. Bending stress due to horizontal wind pressure4. Direct stress due to self-weight of the chimney
Q. 77 According to IS 456:2000, for an RCC footing, the thickness of the footing at the edge shall NOT be less than $\qquad$ for footings on soils.
Ans
X 1.100 mm
X 2. 200 mm
$\times 3.50 \mathrm{~mm}$4. 150 mm
Q. 78 The type of pile foundation that is installed in soft strata to build a stable foundation for heavy structures by the method of resistance is called:
Ans
$X$ 1. tension piles
$X$ 2. screw piles
2. end bearing piles
$\times 4$ friction piles
Q. 79 Which of the following is just above the blank pipe in the tube well?

Ans

- 1. Strainer

X 2. Barrel
X 3. Main tube-well pipe
X4. Fulcrum

Option 1 ID : 264330626662
Option 2 ID : 264330626659
Option 3 ID : 264330626661
Option 4 ID : 264330626660
Q. 80 Pavement blocks are mostly recommended during construction due to:

Ans $\times 1$. water absorption capacity
X 2. efflorescence
X 3. size of the block
4. low maintenance

```
Q. }8
    is the method of locating an offset point from 2 different points on a chain line in such
    a way that all the three points form a near-equilateral triangle
Ans
\(X_{1}\). Oblique offset method
\(X_{\text {2. Swing offset method }}\)
\(X_{\text {3. Perpendicular offset method }}\)
4. Method of ties
```

Q. 82 Which of the following statements regarding an electronic theodolitfitted with a graduated circle encoded in an incremental system is INCORRECT?

1. Two photodiodes are placed perpendicular to each other over the graduated circle.
$\times$ 2. One of the photodiodes is fixed and the other moves with the telescope.
X 3. The graduated circle is made of glass.
$X 4$. The graduated circle is fixed and it does not move.

Question ID : 264330160629
Option 1 ID : 264330629848
Option 2 ID : 264330629849
Option 3 ID : 264330629847
Option 4 ID : 264330629850
Status : Not Answered
Chosen Option: _-
Ans
Q. 83 Consider the following statements regarding horizontal equivalent and contour interval.
i. Horizontal equivalent between two contour lines is always constant.
ii. Horizontal equivalent may be zero for a vertical cliff.
iii. Contour interval should be inversely proportional to the scale.
iv. For detailed design work, large contour interval is taken.

Which of the given statements are correct?
Ans
$X_{1 . i}$ andiv
$x_{\text {2. i ind iii }}$
3 .ii and iii
$X_{4 .}$ ii and iv

```
Q.84 In India, stones with a specific gravity less than
```

$\qquad$

``` are considered unsuitable for buildings.
Ans
        X 1.3.6
        X 2.3.2
        *.2.4
        X4.2.8
Q. 85 A simply supported beam of length 4 m is subjected to a udl of intensity \(10 \mathrm{kN} / \mathrm{m}\) over entire span of beam. Determine the magnitude of maximum shear force acting anywhere in the beam.
X \(1.40 / 6 \mathrm{kN}\)
2.20 kN
X 3.10 kN
X 4.40 kN
```

                                    Question ID : 264330157875
                                    Option 1 ID : 264330618862
                                    Option 2 ID : 264330618861
                            Option 3 ID : 264330618859
                            Option 4 ID : 264330618860
                        Status : Answered
    Chosen Option : 3

Question ID : 264330159416
Option 1 ID : 264330625026
Option 2 ID : 264330625024
Option 3 ID : 264330625025
Option 4 ID : 264330625023
Status : Answered
Chosen Option : 2

## Ans

Q. 86 In soil mechanics, what is Darcy constant? Ans

1. coefficient of permeability
$X_{2 .}$ coefficient of compressibility
$X_{\text {3. coefficient of compaction }}$
$X_{4}$. coefficient of liquefaction
```
Q.87 The true reduced bearing is N5 O ' W and the magnetic declination is 2 E. Find the true bearing in
    the whole circle bearing system.
Ans
< 1.353
    2.355
X3.357
X4.5
```

Q. 88 What is the value of slope on the inside face of thlange for all the standard I-sections and channels sections of steel?
X 1. $16 \frac{3}{4} \%$
$\times 2.16 \frac{1}{2} \%$
X $3.16 \frac{4}{5} \%$
จ $4.16 \frac{2}{3} \%$

Question ID : 264330159692
Option 1 ID : 264330626129
Option 2 ID : 264330626127
Option 3 ID : 264330626130
Option 4 ID : 264330626128
Status: Not Answered
Chosen Option :

Ans
Q. 89 The horizontal platform that is used for connecting two flights of a staircase is called $\qquad$ _.
Ans $X_{1 . \text { thread }}$
2. landing
3. stringer
$\chi_{4}$ connector
Q. 90 Which of the following may NOT be a direct effect of noise pollution?

Ans

- 1. Stomach disorder

X 2. Anxiety
X 3. Hearing loss
X4. Migration of birds from cities
Q. 91 Which of the following options represents the methods that can be used effectively to locate the routes of highways or railways from a contour map?

Ans
X 1. Method of cross-section and the equal depth contours method
2. Method of cross-section and the tracing of contour gradient method

X 3. Tracing of contour gradient method and the equal depth contours method
X4. Tracing of contour gradient method and the method of horizontal plane
Q. 92 In a plane survey, the length of an arc 12 km long lying on the eart'b surface is greater than the subtended chord.

Ans
$\times 1.0 .1 \mathrm{~cm}$
X2. 100 cm
X 3.10 cm

- 4.1 cm
Q. 93 The density of mercury used in shrinkage limit apparatus is $\qquad$ (approx)
Ans $\times 1.15 .6 \mathrm{~g} / \mathrm{cc}$
× $2.14 .6 \mathrm{~g} / \mathrm{cc}$
- $3.13 .6 \mathrm{~g} / \mathrm{cc}$

X $4.12 .6 \mathrm{~g} / \mathrm{cc}$

```
Q.94 Arrange the various zones of distribution of soil moisture in the infiltration process. A.Saturation zone
    B.Wetting zone
    C.Transmission zone
    D.Transition zone
Ans
X 1.C,A,D,B
        2. A, D, C, B
X 3,C,D,B,A
X 4.A,B,C,D
```

Question ID : 26433095843
Option 1 ID : 264330376144
Option 2 ID : 264330376143
Option 3 ID : 264330376142
Option 4 ID : 264330376141
Status: Not Answered
Chosen Option :--
Q. 95 By which method is valuation carried out to be initial or prime cost less depreciation?

X 1. Estimated cost from accounts
X 2. Cost from detailed items
X 3. Profit-based valuation
4. Initial cost-based valuation

Ans
Q. 96 Pot and Bow Sleepers are which of the following type of sleepers?

Ans
$\chi_{1 .}$ Chock sleepers
2. Cast iron sleepers
$X_{3 \text {. Steel sleepers }}$
$X_{4 .}$ concrete sleepers

```
Q. 97 Soil with particle size less than ___ mm is called fine grained soil (silt or clay).
Ans
    \(X_{1.0 .020}\)
    2. 0.075
    \(x_{3.0 .015}\)
    \(X_{4.14 .750}\)
```

    Question ID : 26433096817
    Option 1 ID : 264330380006
    Option 2 ID : 264330380007
    Option 3 ID : 264330380005
    Option 4 ID : 264330380008
        Status : Answered
    Chosen Option : 2
Q. 98 The power of a centrifugal pump depends on the rate of flow of water. The rate of flow of water from the centrifugal pump is directly proportional to the $\qquad$ -

Ans

1. revolutions per minute of the impeller
$X_{2 \text {. inner diameter of the impeller }}$
$X_{3 . \text { total head }}$
$X_{4 \text {. outer diameter of the impeller }}$
Q. 99 With reference to lacings under compression members of steel structures, the width of the lacing flat for 20 mm of nominal diameter of rivet is
X 1.65 mm

- 2.60 mm
$\times 3.50 \mathrm{~mm}$
$\times 4.55 \mathrm{~mm}$
Q. 100 A vertical gate closes a horizontal tunnel 4 m high and 3 m wide running full with water. The bottom of the vertical gate is located at a distance of 8 m from the free water surface.
Determine the totalfluid force (in kN ) acting on the gate.
Ans
$\times 2.720$
$\times 3.730$
$\times 4.740$

