



Common University Entrance Test (PG)

# CUET PG 2023 Question Paper

The CUET PG is an all-India test being organized by National Testing Agency for admission to various Postgraduate courses in various Central Universities. It is also accepted by number of other State Universities and Deemed universities in India.

---

download pdf at:  
[aglasem.com](https://aglasem.com)



# National Testing Agency

|                       |                                                             |
|-----------------------|-------------------------------------------------------------|
| Question Paper Name : | Water Engineering and Management Eng 05th June 2023 Shift 2 |
| Subject Name :        | Water Engineering and Management Eng                        |
| Creation Date :       | 2023-06-05 18:34:39                                         |
| Duration :            | 120                                                         |
| Total Marks :         | 400                                                         |
| Display Marks:        | Yes                                                         |

## Water Engineering and Management

|                               |           |
|-------------------------------|-----------|
| Group Number :                | 1         |
| Group Id :                    | 68634015  |
| Group Maximum Duration :      | 0         |
| Group Minimum Duration :      | 120       |
| Show Attended Group? :        | No        |
| Edit Attended Group? :        | No        |
| Break time :                  | 0         |
| Group Marks :                 | 400       |
| Is this Group for Examiner? : | No        |
| Examiner permission :         | Cant View |
| Show Progress Bar? :          | No        |

## Part A

|                                                              |           |
|--------------------------------------------------------------|-----------|
| Section Id :                                                 | 68634029  |
| Section Number :                                             | 1         |
| Section type :                                               | Online    |
| Mandatory or Optional :                                      | Mandatory |
| Number of Questions :                                        | 21        |
| Number of Questions to be attempted :                        | 21        |
| Section Marks :                                              | 100       |
| Enable Mark as Answered Mark for Review and Clear Response : | Yes       |
| Maximum Instruction Time :                                   | 0         |
| Sub-Section Number :                                         | 1         |
| Sub-Section Id :                                             | 68634043  |
| Question Shuffling Allowed :                                 | No        |
| Is Section Default? :                                        | null      |

Question Id : 6863401415 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (1 to 5)

Question Label : Comprehension

Read the following passage and answer the next five questions by choosing the correct options:-

Kalidasa's status as the major poet and dramatist in classical Sanskrit literature is unquestioned. Once, when poets were counted, Kalidasa occupied the little finger; the ring finger remains unnamed true to its name; for his second has not been found.

That is high praise. Kalidasa's accomplishment is distinguished not only by the excellence of the individual works, but by the many-sided which the whole achievements displays. He is a dramatist, a writer of epic and a lyric poet of extraordinary scope. In his hands the language attained a remarkable flexibility, becoming an instrument capable of sounding many moods and nuances of feeling; a language that is limpid and flowing, musical, uncluttered by the verbal virtuosity indulged in by writers who followed him; yet, remaining a language loaded in every the rift with the rich ores of the literacy and mythical allusiveness of his cultural heritage. By welding different elements to create new genres, his importance as an innovator in the history of Sanskrit literature is clearly established. The brilliant medieval lyric poet, Jayadeva, in praising Kalidasa i-kula-guru (master of Poets), conveys his recognition of this aspect of the poet's greatness. Bana, the celebrated author of the prose-romance Kadambari exclaimed.

Who is not delighted when Kalidasa's perfect verses spring forth their sweetness, like honey-filled clusters of flowers?

Thus drawing attention to the exquisite craftsmanship of the poet's verse for nearly two millennia, Kalidasa's works have been read with deep appreciation, widely commented upon and lavishly praised. It would be safe to assume that the poet enjoyed success, fame and affluence during this lifetime. We sense no hint of dissatisfaction in his works, no sign of bitterness at not receiving due recognition. Yet, we do not possess any information about him, his life and the times in which that life unfolded and fulfilled itself. All we are left with are a few legends. The poet has drawn a veil of silence round himself so complete that even his real name is unknown to posterity.

No name is affixed to the poems and epic; they have come down to us virtually anonymous. What information we possess is derived from references to them by later poets and writers and the commentaries written on them and from inscriptions. The name is met with only in the plays, where in each prologue, the author styles himself as Kalidasa. Like others in Sanskrit literature, this name is descriptive: Vyasa, meaning 'the compiler', is the author of the Mahabharata, Valmiki, 'he who emerged from the anthill (valmika)'; of the Ramayana. Similarly Kali-dasa means the votary or servant of Kali is time in the feminine (Kala is time); the concept of time as creative principle is as old as the Vedas. 'We can then translate the name Kali-dasa as 'the servant of time', a phrase that prompts us to explore its significance.

#### Sub questions

Question Number : 1 Question Id : 6863401416 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

What is the main idea of the excerpt?

1. The mystery and obscurity surrounding the name and life of Kalidasa
2. The exploration of the literary and mythical allusiveness in the language of Kalidasa
3. Presenting Kalidasa as a supreme innovator
4. Appreciation of Kalidasa's distinguished stature as a dramatist, epic and lyric poet

Options :

6863405601. 1

6863405602. 2

6863405603. 3

6863405604. 4

**Question Number : 2 Question Id : 6863401417 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Which of the following statements are true, with reference to Kalidasa?

1. his language is enriched with the literary and mythical allusiveness of his cultural heritage
2. He can be called an innovator in the history of sanskrit literature he welds different elements to create new geures
3. He was a dramatist, an epic and literary poet of extraordinary scope
4. The bitterness and dissatisfaction of not having been adequately recognized in the works of the later period

**Options :**

6863405605. 1

6863405606. 2

6863405607. 3

6863405608. 4

**Question Number : 3 Question Id : 6863401418 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Kalidasa's is "a language loaded in every rift with the rich ores of literary and mythical allusiveness."

The literary device used in the underlined segment is:

1. Imagery
2. Asyndeton
3. Personification
4. Metaphor

**Options :**

6863405609. 1

6863405610. 2

6863405611. 3

6863405612. 4

**Question Number : 4 Question Id : 6863401419 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Match List I with List II based on the information in the passage:

| LIST I |                                                | LIST II |                                       |
|--------|------------------------------------------------|---------|---------------------------------------|
| A.     | Valmiki-"he who emerged from the authill"      | I.      | The author of Mahabharatha            |
| B.     | Jayadeva-brilliant medieval lyric poet         | II.     | Anonymous works                       |
| C.     | Kalidasa-"The servant of time"-Master of poets | III.    | The author of prose-romance Kadambari |
| D.     | Vyasa-the compiler                             | IV.     | The author of the Ramayana            |

Choose the most appropriate answer from the options given below:

1. A-IV, B-II, C-III, D-I
2. A-IV, B-III, C-II, D-I
3. A-IV, B-III, C-I, D-II
4. A-I, B-II, C-IV, D-III

**Options :**

6863405613. 1  
6863405614. 2  
6863405615. 3  
6863405616. 4

**Question Number : 5 Question Id : 6863401420 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Match List I with List II to highlight the sauant features of Kalidasa's age

| LIST I |                                                 | LIST II |                                                                                |
|--------|-------------------------------------------------|---------|--------------------------------------------------------------------------------|
| A.     | Uncluttered by verbal virtuositities            | I.      | An innovator who joined or amalgamated different elements to create new geures |
| B.     | Literary and mythical allusiveness              | II.     | Kalidasa's personal life is not revealed to posterity                          |
| C.     | Veil of silence round himself                   | III.    | Free of the excessive culture and display of verbal skill                      |
| D.     | Welding different elements to create new geures | IV.     | The reference to literature and myth in his language                           |

Choose the most appropriate answer from the options given below:

1. A-IV, B-II, C-III, D-I
2. A-II, B-I, C-IV, D-III
3. A-III, B-IV, C-II, D-I
4. A-III, B-I, C-IV, D-II

**Options :**

6863405617. 1  
6863405618. 2  
6863405619. 3

**Question Id : 6863401415 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Question Numbers : (1 to 5)**

**Question Label : Comprehension**

Read the following passage and answer the next five questions by choosing the correct options:-

Kalidasa's status as the major poet and dramatist in classical Sanskrit literature is unquestioned. once; when poets were counted, Kalidasa occupied the little finger; the ring finger remains unnamed true to its name; for his second has not been found.

That is high praise. Kalidasa's accomplishment is distinguished not only by the excellence of the individual works, but by the many-sided which the whole achievements displays. He is a dramatist, a writer of epic and a lyric poet of extraordinary scope. In his hands the language attained a remarkable flexibility, becoming an instrument capable of sounding many moods and nuances of feeling; a language that is limpid and flowing, musical, uncluttered by the verbal virtuositities indulged in by writers who followed him; yet, remaining a language loaded in every the rift with the rich ores of the literacy and mythical allusiveness of his cultural heritage. By welding different elements to create new genres, his important as an innovator in the history of Sanskrit literature is clearly established. The brilliant medieval lyric poet, Jayadeva, in praising Kalidasa i-kula-guru (master of Poets), Conveys his recognition of this aspect of the poet greatness. Bana, the celebrated author of the prose-romance kadambari exclaimed.

Who is not delighted when Kalidasa's perfect verses spring forth their sweetness, like honey-filled cluster of flowers?

Thus drawing attention to the exquisite craftsmanship of the poet's verse for nearly two millennia, Kalidasa's works have been read with deep appreciation, widely commented upon and lavishly praised. It would be safe to assume that the poet enjoyed success, fame and affluence during this lifetime. We sense no hint of dissatisfaction in his works, no sign bitterness at not receiving due recognition. Yet, we do not possess any information about him, his life and the times in which that life unfolded and fulfilled itself. All we are left with are a few legends. The poet has drawn a veil of silence round himself so complete that even his real name is unknown to posterity.

No name is affixed to the poems and epic; they have come down to us virtually anonymous. What information we possess is derived from references to them by later poets and writers and the commentaries written on them and from inscriptions. The name is met with only in the plays, where in each prologue, the author styles himself as Kalidasa. Like others in Sanskrit literature, this name is descriptive: Vyasa, meaning 'the compiler', is the author of the Mahabharata, Valmiki, 'he who emerged from the anthil (valmika); of the Ramayana. Similarly Kali-dasa means the votary or servant of Kali is time in the feminine (Kala is time); the concept of times as creative principle is as old as Vedas. 'We can then translate the name Kali-dasa as 'the servant of time', a phrase that prompts us to explore its significance.

**Sub questions**

**Question Number : 1 Question Id : 6863401416 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

What is the main idea of the excerpt?

1. The mystery and obscurity surrounding the name and life of Kalidasa
2. The exploration of the literary and mythical allusiveness in the language of Kalidasa
3. Presenting Kalidasa as a supreme innovator
4. Appreciation of Kalidas's distinguished stature as a dramatist epic and lyric poet

Options :

- 6863405601. 1
- 6863405602. 2
- 6863405603. 3
- 6863405604. 4

Question Number : 2 Question Id : 6863401417 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Which of the following statements are true, with reference to Kalidasa?

1. his language is enriched with the literary and mythical allusiveness of his cultural heritage
2. He can be called an innovator in the history of sanskrit literature he welds different elements to create new geures
3. He was a dramatist, an epic and literary poet of extraordinary scope
4. The bitterness and dissatisfaction of not having been adequately recognized in the works of the later period

Options :

- 6863405605. 1
- 6863405606. 2
- 6863405607. 3
- 6863405608. 4

Question Number : 3 Question Id : 6863401418 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Kalidasa's is "a language loaded in every rift with the rich ores of literary and mythical allusiveness."

The literary device used in the underlined segment is:

1. Imagery
2. Asyndeton
3. Personification
4. Metaphor

**Options :**

6863405609. 1  
6863405610. 2  
6863405611. 3  
6863405612. 4

**Question Number : 4 Question Id : 6863401419 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II based on the information in the passage:

| LIST I |                                                | LIST II |                                       |
|--------|------------------------------------------------|---------|---------------------------------------|
| A.     | Valmiki-"he who emerged from the authill"      | I.      | The author of Mahabharatha            |
| B.     | Jayadeva-brilliant medieval lyric poet         | II.     | Anonymous works                       |
| C.     | Kalidasa-"The servant of time"-Master of poets | III.    | The author of prose-romance Kadambari |
| D.     | Vyasa-the compiler                             | IV.     | The author of the Ramayana            |

Choose the most appropriate answer from the options given below:

1. A-IV, B-II, C-III, D-I  
2. A-IV, B-III, C-II, D-I  
3. A-IV, B-III, C-I, D-II  
4. A-I, B-II, C-IV, D-III

**Options :**

6863405613. 1  
6863405614. 2  
6863405615. 3  
6863405616. 4

**Question Number : 5 Question Id : 6863401420 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II to highlight the salient features of Kalidasa's age

| LIST I |                                                 | LIST II |                                                                                |
|--------|-------------------------------------------------|---------|--------------------------------------------------------------------------------|
| A.     | Uncluttered by verbal virtuositities            | I.      | An innovator who joined or amalgamated different elements to create new geures |
| B.     | Literary and mythical allusiveness              | II.     | Kalidasa's personal life is not revealed to posterity                          |
| C.     | Veil of silence round himself                   | III.    | Free of the excessive culture and display of verbal skill                      |
| D.     | Welding different elements to create new geures | IV.     | The reference to literature and myth in his language                           |

Choose the most appropriate answer from the options given below:

1. A-IV, B-II, C-III, D-I
2. A-II, B-I, C-IV, D-III
3. A-III, B-IV, C-II, D-I
4. A-III, B-I, C-IV, D-II

**Options :**

6863405617. 1  
6863405618. 2  
6863405619. 3  
6863405620. 4

**Sub-Section Number :**

2

**Sub-Section Id :**

68634044

**Question Shuffling Allowed :**

Yes

**Is Section Default? :**

null

**Question Number : 6 Question Id : 6863401421 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Match List I with List II to identify the type of Adverbial clause used in List I

| LIST I |                                                                                              | LIST II |                             |
|--------|----------------------------------------------------------------------------------------------|---------|-----------------------------|
| A.     | The performances were cancelled because the leading man was unwell                           | I.      | Concessive adverbial clause |
| B.     | Surely you don't intend to live by yourself like she does                                    | II.     | Adverbial clause of reason  |
| C.     | When the city is dark, we can move around easily                                             | III.    | Adverbial clause of manner  |
| D.     | Although crocodiles are inactive for long periods on, occasion they can run very fast indeed | IV.     | Adverbial clause of time    |

Choose the most appropriate answer from the options given below:

1. A-II, B-I, C-III, D-IV
2. A-I, B-II, C-I, D-IV
3. A-II, B-III, C-IV, D-I
4. A-I, B-III, C-II, D-IV

Options :

6863405621. 1  
 6863405622. 2  
 6863405623. 3  
 6863405624. 4

Question Number : 6 Question Id : 6863401421 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
 Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
 Correct Marks : 4 Wrong Marks : 1

Match List I with List II to identify the type of Adverbial clause used in List I

| LIST I |                                                                                              | LIST II |                             |
|--------|----------------------------------------------------------------------------------------------|---------|-----------------------------|
| A.     | The performances were cancelled because the leading man was unwell                           | I.      | Concessive adverbial clause |
| B.     | Surely you don't intend to live by yourself like she does                                    | II.     | Adverbial clause of reason  |
| C.     | When the city is dark, we can move around easily                                             | III.    | Adverbial clause of manner  |
| D.     | Although crocodiles are inactive for long periods on, occasion they can run very fast indeed | IV.     | Adverbial clause of time    |

Choose the most appropriate answer from the options given below:

1. A-II, B-I, C-III, D-IV
2. A-I, B-II, C-I, D-IV
3. A-II, B-III, C-IV, D-I
4. A-I, B-III, C-II, D-IV

Options :

6863405621. 1  
 6863405622. 2

6863405623. 3  
6863405624. 4

Question Number : 7 Question Id : 6863401422 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Match List I with List II Michael Mccarthy and fill the suitable phrasal values in the blanks.

| LIST I |                                                                                                                 | LIST II |                |
|--------|-----------------------------------------------------------------------------------------------------------------|---------|----------------|
| A.     | The escaped convict _____ on an oil tanker                                                                      | I.      | Slogging away  |
| B.     | Jo has ben _____ at her revision all morning.<br>Why don't you take her some coffee                             | II.     | Whittling away |
| C.     | Every year the management is _____ at jobs.<br>Now there are fewer than 100 employees in the company            | III.    | Dumbing down   |
| D.     | There are complaints that many universities<br>are _____ their degree courses in order to attract more students | IV.     | Stowed away    |

Choose the most appropriate answer from the options given below:

1. A-IV, B-III, C-I, D-II
2. A-IV, B-II, C-III, D-I
3. A-IV, B-I, C-II, D-III
4. A-II, B-IV, C-I, D-III

Options :

6863405625. 1  
6863405626. 2  
6863405627. 3  
6863405628. 4

Question Number : 7 Question Id : 6863401422 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Match List I with List II Michael Mccarthy and fill the suitable phrasal values in the blanks.

| LIST I |                                                                                                                 | LIST II |                |
|--------|-----------------------------------------------------------------------------------------------------------------|---------|----------------|
| A.     | The escaped convict _____ on an oil tanker                                                                      | I.      | Slogging away  |
| B.     | Jo has ben _____ at her revision all morning.<br>Why don't you take her some coffee                             | II.     | Whittling away |
| C.     | Every year the management is _____ at jobs.<br>Now there are fewer than 100 employees in the company            | III.    | Dumbing down   |
| D.     | There are complaints that many universities<br>are _____ their degree courses in order to attract more students | IV.     | Stowed away    |

Choose the most appropriate answer from the options given below:

1. A-IV, B-III, C-I, D-II
2. A-IV, B-II, C-III, D-I
3. A-IV, B-I, C-II, D-III
4. A-II, B-IV, C-I, D-III

**Options :**

6863405625. 1  
6863405626. 2  
6863405627. 3  
6863405628. 4

**Question Number : 8 Question Id : 6863401423 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

The Central government \_\_\_\_\_ Wednesday launched the early childhood care and education programme \_\_\_\_\_ keeping \_\_\_\_\_ the National Education Policy 2020 for all its 13.9 lakh functional anganwadis under the banner "Poshan Bhi Padhai Bhi."

1. on , in , with
2. at, with, in
3. on, with, for
4. on, for, in

**Options :**

6863405629. 1  
6863405630. 2  
6863405631. 3  
6863405632. 4

**Question Number : 8 Question Id : 6863401423 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

The Central government \_\_\_\_\_ Wednesday launched the early childhood care and education programme \_\_\_\_\_ keeping \_\_\_\_\_ the National Education Policy 2020 for all its 13.9 lakh functional anganwadis under the banner "Poshan Bhi Padhai Bhi."

1. on , in , with
2. at, with, in
3. on, with, for
4. on, for, in

**Options :**

6863405629. 1  
6863405630. 2  
6863405631. 3  
6863405632. 4

**Question Number : 9 Question Id : 6863401424 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Choose the correctly spelt word from the given options \_\_\_\_\_ .

1. TESSERA
2. TISSERA
3. TESEERA
4. TESSEAR

**Options :**

6863405633. 1  
6863405634. 2  
6863405635. 3  
6863405636. 4

**Question Number : 9 Question Id : 6863401424 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Choose the correctly spelt word from the given options \_\_\_\_\_ .

1. TESSERA
2. TISSERA
3. TESEERA
4. TESSEAR

**Options :**

6863405633. 1  
6863405634. 2  
6863405635. 3  
6863405636. 4

**Question Number : 10 Question Id : 6863401425 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

Leaving a meeting as an expression of disapproval is called.

1. Walk on
2. Walk off
3. Walk in
4. Walk out

**Options :**

6863405637. 1  
6863405638. 2  
6863405639. 3  
6863405640. 4

**Question Number : 10 Question Id : 6863401425 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

Leaving a meeting as an expression of disapproval is called.

1. Walk on
2. Walk off
3. Walk in
4. Walk out

**Options :**

6863405637. 1  
6863405638. 2  
6863405639. 3  
6863405640. 4

**Question Number : 11 Question Id : 6863401426 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

A sum of money lent on compound interest amounts to ₹968 in 2 years at 10% per annum interest compounded annually. find the sum.

1. Rs 827
2. Rs 845
3. Rs 800
4. RS 889

**Options :**

6863405641. 1  
6863405642. 2  
6863405643. 3  
6863405644. 4

**Question Number : 11 Question Id : 6863401426 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

A sum of money lent on compound interest amounts to ₹968 in 2 years at 10% per annum interest compounded annually. find the sum.

1. Rs 827
2. Rs 845
3. Rs 800
4. RS 889

**Options :**

6863405641. 1  
6863405642. 2  
6863405643. 3  
6863405644. 4

**Question Number : 12 Question Id : 6863401427 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

While finding the average marks of the class, marks of one student were wrongly entered as 93 instead of 63 resulting to an increase in the average by 0.5 mark. The number of students in the class is.

1. 50
2. 55
3. 60
4. 75

**Options :**

6863405645. 1  
6863405646. 2  
6863405647. 3  
6863405648. 4

**Question Number : 12 Question Id : 6863401427 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

While finding the average marks of the class, marks of one student were wrongly entered as 93 instead of 63 resulting to an increase in the average by 0.5 mark. The number of students in the class is.

1. 50
2. 55
3. 60
4. 75

**Options :**

6863405645. 1  
6863405646. 2  
6863405647. 3  
6863405648. 4

**Question Number : 13 Question Id : 6863401428 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

The diameter of a solid right circular cone is 14cm and its slant height is 10cm. The rate of colouring of the cone is ₹14/cm<sup>2</sup> The cost of colouring use  $\left(\pi = \frac{22}{7}\right)$

1. ₹ 5036
2. ₹ 5136
3. ₹ 5266
4. ₹ 5236

**Options :**

6863405649. 1  
6863405650. 2  
6863405651. 3  
6863405652. 4

**Question Number : 13 Question Id : 6863401428 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

The diameter of a solid right circular cone is 14cm and its slant height is 10cm. The rate of colouring of the cone is ₹14/cm<sup>2</sup> The cost of colouring use  $\left(\pi = \frac{22}{7}\right)$

1. ₹ 5036

2. ₹ 5136

3. ₹ 5266

4. ₹ 5236

**Options :**

6863405649. 1

6863405650. 2

6863405651. 3

6863405652. 4

**Question Number : 14 Question Id : 6863401429 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

How many kilograms of sugar costing RS 45 per kg must be mixed with 27 kg of sugar costing Rs35 per kg so that there is a gain of 10% by selling the mixture at Rs46.20 per kg?

1. 36

2. 42

3. 54

4. 63

**Options :**

6863405653. 1

6863405654. 2

6863405655. 3

6863405656. 4

**Question Number : 14 Question Id : 6863401429 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

How many kilograms of sugar costing RS 45 per kg must be mixed with 27 kg of sugar costing Rs35 per kg so that there is a gain of 10% by selling the mixture at Rs46.20 per kg?

- 1. 36
- 2. 42
- 3. 54
- 4. 63

**Options :**

- 6863405653. 1
- 6863405654. 2
- 6863405655. 3
- 6863405656. 4

**Question Number : 15 Question Id : 6863401430 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

A and B together can do a work in 30 days. they worked together for 20 days and then B left A alone finished the remaining work in 20 days. In how many days A alone can do the whole work?

- 1. 60
- 2. 54
- 3. 50
- 4. 40

**Options :**

- 6863405657. 1
- 6863405658. 2
- 6863405659. 3
- 6863405660. 4

**Question Number : 15 Question Id : 6863401430 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

A and B together can do a work in 30 days. they worked together for 20 days and then B left A alone finished the remaining work in 20 days. In how many days A alone can do the whole work?

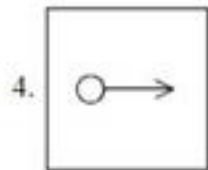
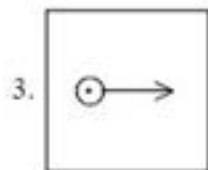
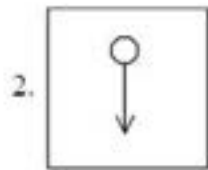
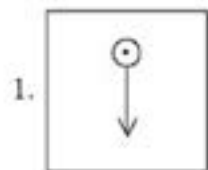
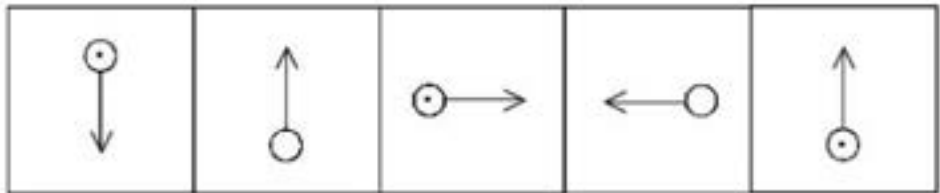
- 1. 60
- 2. 54
- 3. 50
- 4. 40

**Options :**

6863405657. 1  
6863405658. 2  
6863405659. 3  
6863405660. 4

**Question Number : 16 Question Id : 6863401431 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Choose the correct option complete the figure series problem figure:

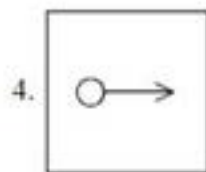
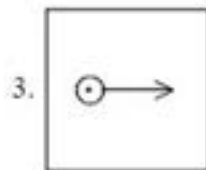
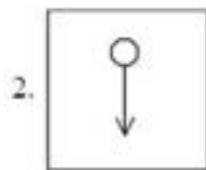
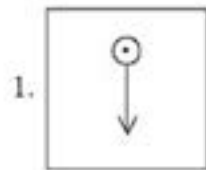
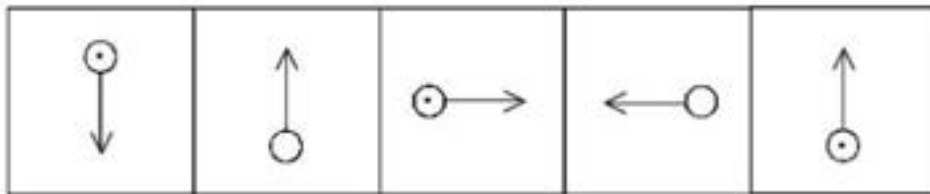


**Options :**

6863405661. 1  
6863405662. 2  
6863405663. 3  
6863405664. 4

**Question Number : 16 Question Id : 6863401431 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Choose the correct option complete the figure series problem figure:



**Options :**

6863405661. 1

6863405662. 2

6863405663. 3

6863405664. 4

**Question Number : 17 Question Id : 6863401432 Question Type : MCQ Option Shuffling : No Is Question Mandatory :**

**No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Answer the below mentioned question on the basic of the given statements and assumptions.

Statements- The company has recently announced series incentives to the employee who are punctual and sincere

Assumptions: I: those who are not punctual at present may get motivated by the announcement

II: The productivity of the company may increase

III: The profit earned by the company may be more than the amount to be spent for the incentive programme

1. Only I is right
2. Only II is right
3. I and II are right
4. II and III are right

**Options :**

- 6863405665. 1
- 6863405666. 2
- 6863405667. 3
- 6863405668. 4

**Question Number : 17 Question Id : 6863401432 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Answer the below mentioned question on the basic of the given statements and assumptions.

Statements- The company has recently announced series incentives to the employee who are punctual and sincere

Assumptions: I: those who are not punctual at present may get motivated by the announcement

II: The productivity of the company may increase

III: The profit earned by the company may be more than the amount to be spent for the incentive programme

1. Only I is right
2. Only II is right
3. I and II are right
4. II and III are right

**Options :**

- 6863405665. 1
- 6863405666. 2
- 6863405667. 3
- 6863405668. 4

**Question Number : 18 Question Id : 6863401433 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Find the missing term:  
0, 3, 8, 15, 24, ?

1. 32

2. 33

3. 34

4. 35

**Options :**

6863405669. 1

6863405670. 2

6863405671. 3

6863405672. 4

**Question Number : 18 Question Id : 6863401433 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Find the missing term:  
0, 3, 8, 15, 24, ?

1. 32

2. 33

3. 34

4. 35

**Options :**

6863405669. 1

6863405670. 2

6863405671. 3

6863405672. 4

**Question Number : 19 Question Id : 6863401434 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Suraj's school bus is facing North when it reaches his school. After starting from Suraj's house, it turns right twice and then turn left before reaching the school which direction was the bus facing when it left the bus stop in front of Suraj house?

1. East
2. West
3. North
4. South

**Options :**

6863405673. 1  
6863405674. 2  
6863405675. 3  
6863405676. 4

**Question Number : 19 Question Id : 6863401434 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Suraj's school bus is facing North when it reaches his school. After starting from Suraj's house, it turns right twice and then turn left before reaching the school which direction was the bus facing when it left the bus stop in front of Suraj house?

1. East
2. West
3. North
4. South

**Options :**

6863405673. 1  
6863405674. 2  
6863405675. 3  
6863405676. 4

**Question Number : 20 Question Id : 6863401435 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

If Raman says, "Anil's mother is the only daughter of my mother", How is Raman related to Anil?

1. Father
2. Brother
3. Maternal uncle
4. Grand father

**Options :**

- 6863405677. 1
- 6863405678. 2
- 6863405679. 3
- 6863405680. 4

**Question Number : 20 Question Id : 6863401435 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

If Raman says, "Anil's mother is the only daughter of my mother", How is Raman related to Anil?

- 1. Father
- 2. Brother
- 3. Maternal uncle
- 4. Grand father

**Options :**

- 6863405677. 1
- 6863405678. 2
- 6863405679. 3
- 6863405680. 4

**Question Number : 21 Question Id : 6863401436 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Gas that was leaked during 'Bhopal gas tragedy' is \_\_\_\_\_.

- 1. Ethyl isothiocyanate
- 2. Methyl isocyanate
- 3. Soliam isothiocyanate
- 4. Methyl per oxide

**Options :**

- 6863405681. 1
- 6863405682. 2
- 6863405683. 3
- 6863405684. 4

**Question Number : 21 Question Id : 6863401436 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Gas that was leaked during 'Bhopal gas tragedy' is \_\_\_\_\_ .

1. Ethyl isothiocyanate
2. Methyl isocyanate
3. Soliam isothiocyanate
4. Methyl per oxide

**Options :**

6863405681. 1  
6863405682. 2  
6863405683. 3  
6863405684. 4

**Question Number : 22 Question Id : 6863401437 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

| LIST I Phases of Buddha's Life |               | LIST II Symbols |            |
|--------------------------------|---------------|-----------------|------------|
| A.                             | Renunciation  | I.              | Stupa      |
| B.                             | Enlightenment | II.             | Horse      |
| C.                             | First sermon  | III.            | Wheel      |
| D.                             | Death         | IV.             | Bodhi tree |

Choose the most appropriate answer from the options given below:

1. A-II, B-IV, C-III, D-I
2. A-IV, B-II, C-III, D-I
3. A-II, B-IV, C-I, D-III
4. A-I, B-II, C-III, D-IV

**Options :**

6863405685. 1  
6863405686. 2  
6863405687. 3  
6863405688. 4

**Question Number : 22 Question Id : 6863401437 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

| LIST I Phases of Buddha's Life |               | LIST II Symbols |            |
|--------------------------------|---------------|-----------------|------------|
| A.                             | Renunciation  | I.              | Stupa      |
| B.                             | Enlightenment | II.             | Horse      |
| C.                             | First sermon  | III.            | Wheel      |
| D.                             | Death         | IV.             | Bodhi tree |

Choose the most appropriate answer from the options given below:

1. A-II, B-IV, C-III, D-I
2. A-IV, B-II, C-III, D-I
3. A-II, B-IV, C-I, D-III
4. A-I, B-II, C-III, D-IV

**Options :**

6863405685. 1  
6863405686. 2  
6863405687. 3  
6863405688. 4

**Question Number : 23 Question Id : 6863401438 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Who has become the first women President of the Indian Olympic Association (IOA)?

1. Deepa Karmakar
2. Mary Kom
3. Pt Usha
4. Karnam Malleshwari

**Options :**

6863405689. 1  
6863405690. 2  
6863405691. 3  
6863405692. 4

**Question Number : 23 Question Id : 6863401438 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Who has become the first women President of the Indian Olympic Association (IOA)?

1. Deepa Karmakar
2. Mary Kom
3. Pt Usha
4. Karnam Malleshwari

**Options :**

6863405689. 1  
6863405690. 2  
6863405691. 3  
6863405692. 4

**Question Number : 24 Question Id : 6863401439 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

**Statement I:** Green revolution is the phrase generally used to describe the spectacular increase that took place during 1968

**Statement II:** Green revolution was introduced by Lal Bahadur Shastri

In the light of the above statements, choose the most appropriate answer from the options given below:

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

**Options :**

6863405693. 1  
6863405694. 2  
6863405695. 3  
6863405696. 4

**Question Number : 24 Question Id : 6863401439 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

**Statement I:** Green revolution is the phrase generally used to describe the spectacular increase that took place during 1968

**Statement II:** Green revolution was introduced by Lal Bahadur Shastri

In the light of the above statements, choose the most appropriate answer from the options given below:

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

**Options :**

- 6863405693. 1
- 6863405694. 2
- 6863405695. 3
- 6863405696. 4

**Question Number : 25 Question Id : 6863401440 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Which Article give power to President of India to promugate ordinances, when the parliament is not in session?

1. Article 51A
2. Article 151
3. Article 123
4. Article 356

**Options :**

- 6863405697. 1
- 6863405698. 2
- 6863405699. 3
- 6863405700. 4

**Question Number : 25 Question Id : 6863401440 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Which Article give power to President of India to promugate ordinances, when the parliament is not in session?

1. Article 51A
2. Article 151
3. Article 123
4. Article 356

Options :

6863405697. 1  
6863405698. 2  
6863405699. 3  
6863405700. 4

## Part B: Water Engineering and Management

|                                                              |           |
|--------------------------------------------------------------|-----------|
| Section Id :                                                 | 68634030  |
| Section Number :                                             | 2         |
| Section type :                                               | Online    |
| Mandatory or Optional :                                      | Mandatory |
| Number of Questions :                                        | 75        |
| Number of Questions to be attempted :                        | 75        |
| Section Marks :                                              | 300       |
| Enable Mark as Answered Mark for Review and Clear Response : | Yes       |
| Maximum Instruction Time :                                   | 0         |
| Sub-Section Number :                                         | 1         |
| Sub-Section Id :                                             | 68634045  |
| Question Shuffling Allowed :                                 | Yes       |
| Is Section Default? :                                        | null      |

Question Number : 26 Question Id : 6863401441 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

The chezy's coefficient 'C' is related to Darcy-Weisbach friction factor 'f' as -

1.  $C = \sqrt{\left(8g / f^{1/4}\right)}$

2.  $C = \sqrt{(8g / f)}$

3.  $C = \sqrt{(g / 8f)}$

4.  $C = \sqrt{(f / 8g)}$

Options :

6863405701. 1  
6863405702. 2  
6863405703. 3  
6863405704. 4

**Question Number : 26 Question Id : 6863401441 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

चेजी गुणक 'C', डार्सी वीजबैक अंश कारक 'f' से निम्नलिखित में से किस प्रकार संबंधित है

1.  $C = \sqrt{\left(8g / f^{1/4}\right)}$

2.  $C = \sqrt{(8g / f)}$

3.  $C = \sqrt{(g / 8f)}$

4.  $C = \sqrt{(f / 8g)}$

**Options :**

6863405701. 1  
6863405702. 2  
6863405703. 3  
6863405704. 4

**Question Number : 27 Question Id : 6863401442 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements :

**Statement I :** The head indicated by a mercury manometer is lower than the actual value.

**Statement II :** The head indicated by a water manometer is lower than the actual value.

In the light of the above statements, choose the **most appropriate answer** from the options given below:

1. Both Statement I and Statement II are correct.
2. Both Statement I and Statement II are incorrect.
3. Statement I is correct but Statement II is incorrect.
4. Statement I is incorrect but Statement II is correct.

**Options :**

6863405705. 1  
6863405706. 2  
6863405707. 3  
6863405708. 4

Question Number : 27 Question Id : 6863401442 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

नीचे दो कथन दिए हैं:

कथन I: एक पारा मैनोमीटर द्वारा इंगित सीसा वास्तविक मूल्य से कम होता है।

कथन II: एक पानी मैनोमीटर द्वारा इंगित सीसा वास्तविक मूल्य से कम होता है।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सही हैं
2. कथन I और II दोनों गलत हैं
3. कथन I सही है, लेकिन कथन II गलत है
4. कथन I गलत है, लेकिन कथन II सही है

Options :

- 6863405705. 1
- 6863405706. 2
- 6863405707. 3
- 6863405708. 4

Question Number : 28 Question Id : 6863401443 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Give below are two statements :

**Statement - I :** The pressure on the base of a liquid column will depend upon the shape of the column.

**Statement - II :** The pressure over the free surface of a fluid at rest will vary with the location.

In the light of the above statements, choose the **correct answer** from the options given below:

1. Both Statement I and Statement II are true.
2. Both Statement I and Statement II are false.
3. Statement I is true but Statement II is false.
4. Statement I is false but Statement II is true.

Options :

- 6863405709. 1
- 6863405710. 2
- 6863405711. 3
- 6863405712. 4

Question Number : 28 Question Id : 6863401443 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

नीचे दो कथन दिए हैं:

कथन I: तरल स्तंभ के आधार पर दबाव उसके आकार पर निर्भर करता है।

कथन II: किसी तरल पदार्थ की मुक्त सतह पर दबाव स्थान के अनुसार अलग-अलग होता है।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सही हैं
2. कथन I और II दोनों गलत हैं
3. कथन I सही है, लेकिन कथन II गलत है
4. कथन I गलत है, लेकिन कथन II सही है

**Options :**

6863405709. 1  
6863405710. 2  
6863405711. 3  
6863405712. 4

**Question Number : 29 Question Id : 6863401444 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

The size of modular bricks is

1.  $10 \times 10 \times 9$  cm
2.  $19 \times 9 \times 9$  cm
3.  $22.5 \times 10 \times 8.5$  cm
4.  $22.5 \times 8.0 \times 9$  cm

**Options :**

6863405713. 1  
6863405714. 2  
6863405715. 3  
6863405716. 4

**Question Number : 29 Question Id : 6863401444 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

माड्यूलर ईट का साईज क्या होता है

1.  $10 \times 10 \times 9$  cm
2.  $19 \times 9 \times 9$  cm
3.  $22.5 \times 10 \times 8.5$  cm
4.  $22.5 \times 8.0 \times 9$  cm

Options :

6863405713. 1  
6863405714. 2  
6863405715. 3  
6863405716. 4

Question Number : 30 Question Id : 6863401445 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Basalt is

1. Sedimentary Rock
2. Meta Morphic Rock
3. Extrusive igneous Rock
4. Intrusive igneous Rock

Options :

6863405717. 1  
6863405718. 2  
6863405719. 3  
6863405720. 4

Question Number : 30 Question Id : 6863401445 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

बासाल्ट क्या है

1. अवसादी चट्टान
2. कायान्तरित चट्टान
3. बाह्य आग्नेय चट्टान
4. अन्तः निर्मित आग्नेय चट्टानें

Options :

6863405717. 1

6863405718. 2  
6863405719. 3  
6863405720. 4

Question Number : 31 Question Id : 6863401446 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Match List I with List II

| LIST I |                           | LIST II |                 |
|--------|---------------------------|---------|-----------------|
| A.     | Ancient Indian Temples    | I.      | White Marble    |
| B.     | Taj Mahal, Agra           | II.     | Granite         |
| C.     | Red fort, Delhi           | III.    | Pink Sand Stone |
| D.     | Rashtrapati Bhavan, Delhi | IV.     | Red Sand Stone  |

Choose the correct answer from the options given below:

1. A-II, B-I, C-IV, D-III
2. A-I, B-II, C-III, D-IV
3. A-II, B-III, C-I, D-IV
4. A-I, B-II, C-IV, D-III

Options :

6863405721. 1  
6863405722. 2  
6863405723. 3  
6863405724. 4

Question Number : 31 Question Id : 6863401446 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

सूची I का सूची II से मिलान कीजिए

| सूची I |                       | सूची II |                   |
|--------|-----------------------|---------|-------------------|
| A.     | प्राचीन भारतीय मंदिर  | I.      | सफेद मार्बल       |
| B.     | ताजमहल, आगरा          | II.     | ग्रेनाइट          |
| C.     | लाल किला, दिल्ली      | III.    | गुलाबी चूना पत्थर |
| D.     | राष्ट्रपति भवन दिल्ली | IV.     | लाल चूना पत्थर    |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-II, B-I, C-IV, D-III
2. A-I, B-II, C-III, D-IV
3. A-II, B-III, C-I, D-IV
4. A-I, B-II, C-IV, D-III

**Options :**

- 6863405721. 1
- 6863405722. 2
- 6863405723. 3
- 6863405724. 4

**Question Number : 32 Question Id : 6863401447 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Workability of concrete mix with low water cement ratio is determined by

- 1. Tensile strength test
- 2. Soundness test
- 3. Compaction factor test
- 4. Compressive strength test

**Options :**

- 6863405725. 1
- 6863405726. 2
- 6863405727. 3
- 6863405728. 4

**Question Number : 32 Question Id : 6863401447 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

निम्न जल- सीमेंट अनुपात के साथ कंक्रीट मिश्रण की सुकार्यता किसके द्वारा निर्धारित की जाती है

- 1. तन्य शक्ति परीक्षण
- 2. सुढ़ता परीक्षण
- 3. सघनन कारक परीक्षण
- 4. सम्पीड़क क्षमता

**Options :**

- 6863405725. 1
- 6863405726. 2
- 6863405727. 3
- 6863405728. 4

**Question Number : 33 Question Id : 6863401448 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

For the construction of retaining structures, the type of concrete mix to be used is

1. 1:3:6
2. 1:2:4
3.  $1:1\frac{1}{2}:3$
4. 1:4:8

**Options :**

6863405729. 1  
6863405730. 2  
6863405731. 3  
6863405732. 4

**Question Number : 33 Question Id : 6863401448 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

अवरोधित ढाँचे के निर्माण के लिए किस प्रकार का कंक्रीट मिश्रण उपयोग करना चाहिए।

1. 1:3:6
2. 1:2:4
3.  $1:1\frac{1}{2}:3$
4. 1:4:8

**Options :**

6863405729. 1  
6863405730. 2  
6863405731. 3  
6863405732. 4

**Question Number : 34 Question Id : 6863401449 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Give below are two statements :

**Statement - I :** Dry aggregate absorb water from the mixing water and thus affects the workability.

**Statement - II :** Aggregates containing the surface mixture contribute extra water to mix and thus increase the water/cement ratio.

In the light of the above statements, choose the **correct answer** from the options given below:

1. Both Statement I and Statement II are true.
2. Both Statement I and Statement II are false.
3. Statement I is true but Statement II is false.
4. Statement I is false but Statement II is true.

**Options :**

6863405733. 1  
6863405734. 2  
6863405735. 3  
6863405736. 4

**Question Number : 34 Question Id : 6863401449 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिए हैं:

कथन I: सूखे 'रोड़ी और रेत' पानी को मिक्स करते ही सोख लेते हैं और यह इसकी सुकार्यता को प्रभावित करता है।

कथन II: नम मिश्रित एग्रीगेट की सतह पर मौजूद नमी अतिरिक्त पानी का काम करके पानी सीमेंट का अनुपात बढ़ा देता है।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सत्य हैं
2. कथन I और II दोनों असत्य हैं
3. कथन I सत्य है, लेकिन कथन II असत्य है
4. कथन I असत्य है, लेकिन कथन II सत्य है

**Options :**

6863405733. 1  
6863405734. 2  
6863405735. 3  
6863405736. 4

Question Number : 35 Question Id : 6863401450 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

The arithmetical check for Height of Instrument method (HI) is -

1.  $\sum BS - \sum IS = \text{First RL} - \text{Last RL}$
2.  $\sum BS - \sum FS = \text{Last RL} - \text{First RL}$
3.  $\sum FS - \sum BS = \text{Last RL} - \text{First RL}$
4.  $\sum BS - \sum FS = \text{First RL} - \text{Last RL}$

Options :

6863405737. 1  
6863405738. 2  
6863405739. 3  
6863405740. 4

Question Number : 35 Question Id : 6863401450 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Height of Instrument method के लिए अंकगणितीय जाँच है(HI)

1.  $\sum BS - \sum IS = \text{First RL} - \text{Last RL}$
2.  $\sum BS - \sum FS = \text{Last RL} - \text{First RL}$
3.  $\sum FS - \sum BS = \text{Last RL} - \text{First RL}$
4.  $\sum BS - \sum FS = \text{First RL} - \text{Last RL}$

Options :

6863405737. 1  
6863405738. 2  
6863405739. 3  
6863405740. 4

Question Number : 36 Question Id : 6863401451 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Give below are two statements : One is labelled as **Assertion A** and the other is labelled as **Reason R** :

**Assertion A** : High precision of survey work is not required in geodetic survey.

**Reason R** : The curvature of earth is considered for the measurement in Geodetic survey.

In the light of the above statements, choose the **most appropriate answer** from the options given below :

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**.
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**.
3. **A** is correct but **R** is not correct.
4. **A** is not correct but **R** is correct.

**Options :**

6863405741. 1  
6863405742. 2  
6863405743. 3  
6863405744. 4

**Question Number : 36 Question Id : 6863401451 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिए गए हैं: एक अभिकथन (Assertion A) के रूप में लिखित है तो दूसरा उसके कारण (Reason R) के रूप में;

अभिकथन A: जियोडेटिक सर्वेक्षण में सर्वेक्षण कार्य की उच्च परिशुद्धता की आवश्यकता नहीं होती है।

कारण R: भू- गणितीय सर्वेक्षण में मापन पृथ्वी की वक्रता पर निर्भर करता है।

उपरोक्त कथन के अनुसार, नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:

1. A और R दोनों सही हैं और R, A की सही व्याख्या है।
2. A और R दोनों सही हैं और R, A की सही व्याख्या नहीं है।
3. A सही है लेकिन R सही नहीं है।
4. A सही नहीं है लेकिन R सही है।

**Options :**

6863405741. 1  
6863405742. 2  
6863405743. 3  
6863405744. 4

**Question Number : 37 Question Id : 6863401452 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Give below are two statements :

**Statement - I :** To locate the magnetic ores, Geologist use the compass survey.

**Statement - II :** The main reasons for the local attraction in compass survey are due to the terrestrial features either natural or man made.

In the light of the above statements, choose the **correct answer** from the options given below:

1. Both Statement I and Statement II are true.
2. Both Statement I and Statement II are false.
3. Statement I is true but Statement II is false.
4. Statement I is false but Statement II is true.

**Options :**

- 6863405745. 1
- 6863405746. 2
- 6863405747. 3
- 6863405748. 4

**Question Number : 37 Question Id : 6863401452 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिए हैं:

कथन I: चुंबकीय अयस्क का पता लगाने के लिए भूवैज्ञानिक कम्पास सर्वेक्षण का उपयोग करते हैं।

कथन II: कम्पास सर्वेक्षण में स्थानीय आकर्षण का मुख्य कारण प्राकृतिक या मानव निर्मित स्थलीय विशेषताएं हैं।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सत्य हैं।
2. कथन I और II दोनों असत्य हैं।
3. कथन I सत्य है, लेकिन कथन II असत्य है।
4. कथन I असत्य है, लेकिन कथन II सत्य है।

**Options :**

- 6863405745. 1
- 6863405746. 2
- 6863405747. 3
- 6863405748. 4

**Question Number : 38 Question Id : 6863401453 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following sights will be applicable for a change point?

- A. Back sight
- B. Back sight and Fore sight
- C. Fore sight
- D. Intermediate sight
- E. Fore sight and Intermediate sight

Choose the correct answer from the option given below :

- 1. A
- 2. B
- 3. C
- 4. E

**Options :**

- 6863405749. 1
- 6863405750. 2
- 6863405751. 3
- 6863405752. 4

**Question Number : 38 Question Id : 6863401453 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से कौन-सी द्रष्टि परिवर्तन बिंदु के लिए इस्तेमाल की जाएगी ?

- A. पीछे की द्रष्टि
- B. पीछे की और आगे की द्रष्टि
- C. आगे की द्रष्टि
- D. मध्यम द्रष्टि
- E. आगे की द्रष्टि और मध्यम द्रष्टि

नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:

- 1. A
- 2. केवल B
- 3. C
- 4. E

**Options :**

- 6863405749. 1
- 6863405750. 2
- 6863405751. 3
- 6863405752. 4

Question Number : 39 Question Id : 6863401454 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Which methods you will prefer to estimate best the area of an irregular and curved boundary?

1. Average ordinate methods
2. Mid-ordinate methods
3. Simpson's method
4. Trapezoidal method

Options :

6863405753. 1  
6863405754. 2  
6863405755. 3  
6863405756. 4

Question Number : 39 Question Id : 6863401454 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

एक अनियमित और घुमावदार सीमा के क्षेत्रफल का सर्वोत्तम अनुमान लगाने के लिये आप किस विधि को प्राथमिकता देगे।

1. औसत समन्य विधि
2. मध्य क्रम विधि
3. सिम्पसन विधि
4. समलम्बाकार विधि

Options :

6863405753. 1  
6863405754. 2  
6863405755. 3  
6863405756. 4

Question Number : 40 Question Id : 6863401455 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Give below are two statements :

**Statement - I :** The formula of correct length is  $\frac{\text{Measure of length}}{\text{Nominal length of Tape}} \times \text{Actual length of tape} ,$

**Statement - II :** The formula of sag correction is  $-\frac{W^2}{24P^2} \times L .$

In the light of the above statements, choose the **correct answer** from the options given below:

1. Both Statement I and Statement II are true.
2. Both Statement I and Statement II are false.
3. Statement I is true but Statement II is false.
4. Statement I is false but Statement II is true.

**Options :**

6863405757. 1  
6863405758. 2  
6863405759. 3  
6863405760. 4

**Question Number : 40 Question Id : 6863401455 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिए हैं:

**कथन I :** सही लंबाई का सूत्र है :  $\frac{\text{Measure of length}}{\text{Nominal length of Tape}} \times \text{Actual length of tape} ,$

**कथन II :** शिथिलता सुधार का सूत्र है  $-\frac{W^2}{24P^2} \times L .$

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सत्य हैं।
2. कथन I और II दोनों असत्य हैं।
3. कथन I सत्य है, लेकिन कथन II असत्य है।
4. कथन I असत्य है, लेकिन कथन II सत्य है।

**Options :**

6863405757. 1  
6863405758. 2  
6863405759. 3  
6863405760. 4

**Question Number : 41 Question Id : 6863401456 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Give below are two statements : One is labelled as **Assertion A** and the other is labelled as **Reason R** :  
**Assertion A** : Offsets are lateral measurement made w.r.t. main survey line which may be oblique or perpendicular in nature.

**Reason R** : Optical square is used to establish two points at  $0^\circ$ .

In the light of the above statements, choose the **most appropriate answer** from the options given below :

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**.
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**.
3. **A** is correct but **R** is not correct.
4. **A** is not correct but **R** is correct.

**Options :**

- 6863405761. 1
- 6863405762. 2
- 6863405763. 3
- 6863405764. 4

**Question Number : 41 Question Id : 6863401456 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिए गए हैं : एक अभिकथन (Assertion A) के रूप में लिखित है और दूसरा उसके कारण (Reason R) के रूप में:

अभिकथन A: आफसेट मुख्य सर्वेक्षण रेखा के संबंध में किए गए पार्श्व माप है जो तिरछे या लंबवत हो सकते हैं।

कारण R: आष्टिकल स्क्वायर का उपयोग  $0^\circ$  पर दो बिंदु स्थापित करने के लिए किया जाता है।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:

1. A और R दोनों सही हैं और R, A की सही व्याख्या है।
2. A और R दोनों सही हैं और R, A की सही व्याख्या नहीं है।
3. A सही है लेकिन R सही नहीं है।
4. A सही नहीं है लेकिन R सही है।

**Options :**

- 6863405761. 1
- 6863405762. 2
- 6863405763. 3
- 6863405764. 4

**Question Number : 42 Question Id : 6863401457 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Fundamental lines of theodolite are -

- A. Vertical axis
- B. Horizontal axis
- C. Line of collimation
- D. Axis of plate levels
- E. Axis of telescope level

Choose the **correct answer** from the option given below :

- 1. A and B only
- 2. B and C only
- 3. A, B, C, D and E
- 4. D and E only

**Options :**

- 6863405765. 1
- 6863405766. 2
- 6863405767. 3
- 6863405768. 4

**Question Number : 42 Question Id : 6863401457 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

निम्न में से Theodolite की मूलभूत रेखाएँ कौन-सी हैं :

- A. लंबरूप रेखाएँ
- B. क्षैतिज रेखाएँ
- C. संपाश्विक रेखाएँ
- D. प्लेट स्तर की धुरी
- E. दूरबीन स्तर की धुरी

नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:

- 1. केवल A और B
- 2. केवल B और C
- 3. A, B, C, D और E
- 4. केवल D और E

**Options :**

- 6863405765. 1
- 6863405766. 2
- 6863405767. 3
- 6863405768. 4

Question Number : 43 Question Id : 6863401458 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Match List I with List II

| LIST I |                                  | LIST II |                           |
|--------|----------------------------------|---------|---------------------------|
| A.     | Temperature correction ( $C_t$ ) | I.      | $\frac{(P_m - P_o)L}{AE}$ |
| B.     | Puel correction ( $C_p$ )        | II.     | $\frac{h^2}{2L}$          |
| C.     | Slope correction ( $C_h$ )       | III.    | $\alpha(T_m - T_o)L$      |
| D.     | Sag correction ( $C_s$ )         | IV.     | $\frac{LW^2}{24n^2P_m^2}$ |

Choose the correct answer from the options given below:

1. A-III, B-II, C-IV, D-I
2. A-I, B-III, C-II, D-IV
3. A-III, B-I, C-II, D-IV
4. A-I, B-IV, C-II, D-III

Options :

- 6863405769. 1
- 6863405770. 2
- 6863405771. 3
- 6863405772. 4

Question Number : 43 Question Id : 6863401458 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

सूची I का सूची II से मिलान कीजिए

| सूची I |                | सूची II |                           |
|--------|----------------|---------|---------------------------|
| A.     | तापमान संशोधन  | I.      | $\frac{(P_m - P_o)L}{AE}$ |
| B.     | खिंचाव संशोधन  | II.     | $\frac{h^2}{2L}$          |
| C.     | ढाल संशोधन     | III.    | $\alpha(T_m - T_o)L$      |
| D.     | शिथिलता संशोधन | IV.     | $\frac{LW^2}{24n^2P_m^2}$ |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-III, B-II, C-IV, D-I
2. A-I, B-III, C-II, D-IV
3. A-III, B-I, C-II, D-IV
4. A-I, B-IV, C-II, D-III

Options :

6863405769. 1  
 6863405770. 2  
 6863405771. 3  
 6863405772. 4

Question Number : 44 Question Id : 6863401459 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
 Correct Marks : 4 Wrong Marks : 1

The expression for hoop stress / circumferential stress ( $F_1$ ) generated in the material of thin cylinder due to internal pressure of fluid (P) is given by:

Where  $t$  = thickness of the wall of cylinder

$d$  = internal diameter of cylinder

1.  $F_1 = \frac{pd}{2t}$
2.  $F_1 = \frac{pd}{4t}$
3.  $F_1 = \frac{p^2d}{2t}$
4.  $F_1 = \frac{pd^2}{2t}$

**Options :**

6863405773. 1

6863405774. 2

6863405775. 3

6863405776. 4

**Question Number : 44 Question Id : 6863401459 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

द्रव के आंतरिक दबाव के कारण पतले सिलेंडर की सामग्री में उत्पन्न हुपस्ट्रेस / परिधीय तनाव के लिए कौन सा समीकरण सही होगा

जहाँ,

$t$  = सिलेंडर की मोटाई

$d$  = सिलेंडर का आंतरिक व्यास

1.  $F_1 = \frac{pd}{2t}$

2.  $F_1 = \frac{pd}{4t}$

3.  $F_1 = \frac{p^2d}{2t}$

4.  $F_1 = \frac{pd^2}{2t}$

**Options :**

6863405773. 1

6863405774. 2

6863405775. 3

6863405776. 4

**Question Number : 45 Question Id : 6863401460 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Give below are two statements :

**Statement - I :** The maximum shear stress ( $q_{max}$ ) for a rectangular section is  $3/2$  times average shear stress.

**Statement - II :** The maximum shear stress ( $q_{max}$ ) for a circular section is  $4/3$  times the average shear stress.

In the light of the above statements, choose the **correct answer** from the options given below:

1. Both Statement I and Statement II are true.
2. Both Statement I and Statement II are false.
3. Statement I is true but Statement II is false.
4. Statement I is false but Statement II is true.

**Options :**

6863405777. 1  
6863405778. 2  
6863405779. 3  
6863405780. 4

**Question Number : 45 Question Id : 6863401460 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिए हैं:

कथन I: आयताकार खंड के लिए अधिकतम अपरूपण प्रतिबल औसत अपरूपण प्रतिबल तनाव का  $3/2$  गुना है।

कथन II: वृत्ताकार खंड के लिए अधिकतम अपरूपण प्रतिबल औसत अपरूपण प्रतिबल का  $4/3$  गुना है।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सत्य हैं।
2. कथन I और II दोनों असत्य हैं।
3. कथन I सत्य है, लेकिन कथन II असत्य है।
4. कथन I असत्य है, लेकिन कथन II सत्य है।

**Options :**

6863405777. 1  
6863405778. 2  
6863405779. 3  
6863405780. 4

**Question Number : 46 Question Id : 6863401461 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Given below are two statements :

**Statement I :** Rate of change of shear force ( $f$ ) at any section of a loaded beam is equal to the Rate of Loading ( $w$ ) at the section i.e.  $w = \frac{df}{dx}$ .

**Statement II :** Rate of change of bending moment at any section of a loaded beam represent the shear force ( $F$ ) at the section is  $f = \frac{dm}{dx}$ .

In the light of the above statements, choose the **most appropriate answer** from the options given below:

1. Both Statement I and Statement II are correct.
2. Both Statement I and Statement II are incorrect.
3. Statement I is correct but Statement II is incorrect.
4. Statement I is incorrect but Statement II is correct.

**Options :**

6863405781. 1  
6863405782. 2  
6863405783. 3  
6863405784. 4

**Question Number : 46 Question Id : 6863401461 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिए हैं:

**कथन I :** निम्न समीकरण loaded beam के किसी खंड पर अपरूपण बल की परिवर्तन दर को दर्शाता है।  $w = \frac{df}{dx}$ .

**कथन II :** निम्न समीकरण बीम खंड के बंकन आधूर्ण के परिवर्तन दर को सही रूप से दर्शाता है।  $f = \frac{dm}{dx}$

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सत्य हैं।
2. कथन I और II दोनों असत्य हैं।
3. कथन I सत्य है, लेकिन कथन II असत्य है।
4. कथन I असत्य है, लेकिन कथन II सत्य है।

**Options :**

6863405781. 1  
6863405782. 2  
6863405783. 3  
6863405784. 4

**Question Number : 47 Question Id : 6863401462 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

| LIST I |                    | LIST II |                                  |
|--------|--------------------|---------|----------------------------------|
| A.     | Shear force (unit) | I.      | Newton / Area                    |
| B.     | Stress             | II.     | Newton                           |
| C.     | Strain             | III.    | Lateral Strain / Axial Strain    |
| D.     | Poisson Ration (N) | IV.     | Change in length / Actual length |

Choose the correct answer from the options given below:

1. A-II, B-I, C-IV, D-III
2. A-I, B-II, C-IV, D-III
3. A-II, B-III, C-IV, D-I
4. A-II, B-III, C-IV, D-I

Options :

6863405785. 1  
6863405786. 2  
6863405787. 3  
6863405788. 4

Question Number : 47 Question Id : 6863401462 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

सूची I का सूची II से मिलान कीजिए

| सूची I |                        | सूची II |                                    |
|--------|------------------------|---------|------------------------------------|
| A.     | अपरूपण बल              | I.      | न्यूटन/ क्षेत्रफल                  |
| B.     | तनाव                   | II.     | न्यूटन                             |
| C.     | खिंचाव                 | III.    | पार्श्व खिंचाव/ ध्रुवी खिंचाव      |
| D.     | Poisson (पॉइजन) अनुपात | IV.     | लंबाई में परिवर्तन/ वास्तविक लंबाई |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-II, B-I, C-IV, D-III
2. A-I, B-II, C-IV, D-III
3. A-II, B-III, C-IV, D-I
4. A-II, B-III, C-IV, D-I

Options :

6863405785. 1  
6863405786. 2  
6863405787. 3  
6863405788. 4

**Question Number : 48 Question Id : 6863401463 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

The optimistic, most likely duration and the pessimistic time estimate in a network are 6, 10 and 12 months respectively. The expected time is -

1. 11.67 months
2. 10.67 months
3. 9.67 months
4. 8.67 months

**Options :**

6863405789. 1  
6863405790. 2  
6863405791. 3  
6863405792. 4

**Question Number : 48 Question Id : 6863401463 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

यदि एक नेटवर्क में आशावादी, अधिकतम संभावित अवधि और इष्टममेतर समय का अनुमान क्रमशः 6, 10 और 12 महीने है, तो अपेक्षित समय ज्ञात करें।

1. 11.67 months
2. 10.67 months
3. 9.67 months
4. 8.67 months

**Options :**

6863405789. 1  
6863405790. 2  
6863405791. 3  
6863405792. 4

**Question Number : 49 Question Id : 6863401464 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

The optimistic, most likely duration and the pessimistic time estimate in a network are 5, 6 and 10 months respectively. The expected time is -

1. 6 months
2. 6.5 months
3. 7 months
4. 7.5 months

**Options :**

6863405793. 1  
6863405794. 2  
6863405795. 3  
6863405796. 4

**Question Number : 49 Question Id : 6863401464 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

एक नेटवर्क में आशावादी अधिकतम संभावित अवधि और इष्टतम समय का अनुमान क्रमशः 5, 6 और 10 महीने हैं, अपेक्षित समय ज्ञात करें।

1. 6 महीने
2. 6.5 महीने
3. 7 महीने
4. 7.5 महीने

**Options :**

6863405793. 1  
6863405794. 2  
6863405795. 3  
6863405796. 4

**Question Number : 50 Question Id : 6863401465 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Give below are two statements :

**Statement - I :** PERT is most suitable for research and development type of projects as it account for uncertainties involved in estimation of time estimates.

**Statement - II :** Acritical path, method is suitable for repetitive type of projects for example construction projects.

In the light of the above statements, choose the **correct answer** from the options given below:

1. Both Statement I and Statement II are true.
2. Both Statement I and Statement II are false.
3. Statement I is true but Statement II is false.
4. Statement I is false but Statement II is true.

**Options :**

6863405797. 1  
6863405798. 2  
6863405799. 3  
6863405800. 4

**Question Number : 50 Question Id : 6863401465 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिए हैं:

कथन I: अनुसंधान एवं विकास परियोजनाओं के सन्दर्भ में PERT विधि समय अनुमान के लिए सबसे उपयुक्त है क्योंकि यह अनिश्चिताओं को भी निहित करती हैं।

कथन II: क्रांतिक पथ विधि निर्माण परियोजनाओं जैसी पुनरावर्ती प्रकार की परियोजनाओं के लिए उपयुक्त हैं।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सही हैं।
2. कथन I और II दोनों गलत हैं।
3. कथन I सही है, लेकिन कथन II गलत है।
4. कथन I गलत है, लेकिन कथन II सही है।

**Options :**

6863405797. 1  
6863405798. 2  
6863405799. 3  
6863405800. 4

Question Number : 51 Question Id : 6863401466 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Which one of the following project management technique is deterministic in nature.

1. LCES
2. GERT
3. PERT
4. CPM

Options :

6863405801. 1  
6863405802. 2  
6863405803. 3  
6863405804. 4

Question Number : 51 Question Id : 6863401466 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

निम्नलिखित में से कौनसी परियोजना प्रबंधन तकनीक की प्रकृति निर्धारणात्मक है।

1. LCES
2. GERT
3. PERT
4. CPM

Options :

6863405801. 1  
6863405802. 2  
6863405803. 3  
6863405804. 4

Question Number : 52 Question Id : 6863401467 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

In PERT technique, the time estimate of activities and probability of their concurrence follows:

1. Normal distribution curve
2.  $\beta$ -distribution curve
3. Poisson distribution curve
4. Binomial distribution curve

**Options :**

- 6863405805. 1
- 6863405806. 2
- 6863405807. 3
- 6863405808. 4

**Question Number : 52 Question Id : 6863401467 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

पर्ट (PERT) तकनीक में, गतिविधियों समय अनुमान और उनकी सहमति की संभावना के लिये कौन-सा वक्र होगा :

- 1. सामान्य बंटन वक्र
- 2.  $\beta$ - बंटन वक्र
- 3. Poisson बंटन वक्र
- 4. Binomial बंटन वक्र

**Options :**

- 6863405805. 1
- 6863405806. 2
- 6863405807. 3
- 6863405808. 4

**Question Number : 53 Question Id : 6863401468 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Which of the following is a non-recording raingauge?

- 1. Tipping bucket type raingauge
- 2. Symon's raingauge
- 3. Weighing type raingauge
- 4. Floating type raingauge

**Options :**

- 6863405809. 1
- 6863405810. 2
- 6863405811. 3
- 6863405812. 4

**Question Number : 53 Question Id : 6863401468 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से कौन-सी वर्षामापी यंत्र non-recording है ?

1. (Tipping bucket) वर्षामापी यंत्र
2. (Symon's) वर्षामापी यंत्र
3. (Weighing ) वर्षामापी यंत्र
4. (Floating) वर्षामापी यंत्र

**Options :**

6863405809. 1  
6863405810. 2  
6863405811. 3  
6863405812. 4

**Question Number : 54 Question Id : 6863401469 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

**Match List I with List II**

| LIST I (Precipitation) |                                    | LIST II (Characteristics) |                                                                  |
|------------------------|------------------------------------|---------------------------|------------------------------------------------------------------|
| A.                     | Frontal Cyclonic Precipitation     | I.                        | Striking of air masses with topographic barriers                 |
| B.                     | Convective Precipitation           | II.                       | Horizontal air flow to low pressure area causing the air to lift |
| C.                     | Orographic Precipitation           | III.                      | Lifting of one air mass over another                             |
| D.                     | Non-frontal cyclonic precipitation | IV.                       | Due to upward movement of warm air                               |

Choose the **correct answer** from the options given below:

1. A-II, B-III, C-IV, D-I
2. A-III, B-IV, C-I, D-II
3. A-IV, B-II, C-I, D-III
4. A-I, B-II, C-III, D-IV

**Options :**

6863405813. 1  
6863405814. 2  
6863405815. 3  
6863405816. 4

**Question Number : 54 Question Id : 6863401469 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

सूची I का सूची II से मिलान कीजिए

| सूची I वर्षण                   | सूची II विशेषताएं                                                    |
|--------------------------------|----------------------------------------------------------------------|
| A. अग्रचल चक्रवाती वर्षण       | I. स्थलाकृतिक बाधा क्षेतिज और प्रवाह के साथ वायु द्रव्यमान का प्रहार |
| B. संवहनी वर्षण                | II. कम उपस्थिति क्षेत्र वायु लिफ्ट का कारण बनता है                   |
| C. पर्वतीय वर्षण               | III. एक वायु द्रव्यमान का दूसरे पर उठाना                             |
| D. गैर-अग्रचलीय चक्रवाती वर्षण | IV. गर्म हवा के ऊपर की ओर गति के कारण                                |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-II, B-III, C-IV, D-I
2. A-III, B-IV, C-I, D-II
3. A-IV, B-II, C-I, D-III
4. A-I, B-II, C-III, D-IV

Options :

6863405813. 1  
6863405814. 2  
6863405815. 3  
6863405816. 4

Question Number : 55 Question Id : 6863401470 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Give below are two statements : One is labelled as **Assertion A** and the other is labelled as **Reason R** :

**Assertion A** : The air that rushes horizontally into a low pressure area changes into a whirling mass, because of the rotatory motion of the earth about its own axis.

**Reason R** : The central portion of this air mass with low pressure acts like a chimney where air gets lifted, expands, cools and finally gets condensed.

In the light of the above statements, choose the **correct answer** from the options given below :

1. Both **A** and **R** are true and **R** is the correct explanation of **A**.
2. Both **A** and **R** are true and **R** is NOT the correct explanation of **A**.
3. **A** is true but **R** is false.
4. **A** is false but **R** is true.

Options :

6863405817. 1  
6863405818. 2  
6863405819. 3  
6863405820. 4

Question Number : 55 Question Id : 6863401470 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

नीचे दो कथन दिए गए हैं: एक अभिकथन (Assertion A) के रूप में लिखित है और दूसरा उसके कारण (Reason R) के रूप में:

अभिकथन A: कम दबाव वाले क्षेत्र की तरफ क्षेतिज रूप से चलायमान वायु, पृथ्वी की अपनी धुरी के चारों ओर घूर्णन के परिणामस्वरूप एक भंवर द्रव्यमान में परिवर्तित हो जाती है।

कारण R: कम दबाव वाले इस वायु द्रव्यमान का मध्य भाग एक चिमनी की तरह कार्य करता है जिसमें वायु उठती है, फैलती है, ठंडी होती है और अंततः संघनित हो जाती है।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:

1. A और R दोनों सही हैं और R, A की सही व्याख्या है।
2. A और R दोनों सही हैं और R, A की सही व्याख्या नहीं है।
3. A सही है लेकिन R सही नहीं है।
4. A सही नहीं है लेकिन R सही है।

**Options :**

6863405817. 1  
6863405818. 2  
6863405819. 3  
6863405820. 4

**Question Number : 56 Question Id : 6863401471 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Measurement of precipitation is based on which of the following assumptions :-

1. precipitation is measured as the vertical depth of water that accumulates on a level surface
2. precipitation is measured as the horizontal area on which water accumulates.
3. both vertical and horizontal depths are taken to measure precipitation.
4. distribution of rainfall is necessary to be measured.

**Options :**

6863405821. 1  
6863405822. 2  
6863405823. 3  
6863405824. 4

**Question Number : 56 Question Id : 6863401471 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से किस अभिधारण के आधार पर वर्षण का मापन किया जाता है:

1. वर्षा को पानी की ऊर्ध्वाधर गहराई के रूप में मापा जाता है जो एक स्तर की सतह पर जमा होता है
2. वर्षा को पानी की क्षैतिज क्षेत्र के रूप में मापा जाता है जो एक स्तर की सतह पर जमा होता है
3. ऊर्ध्वाधर और क्षैतिज दोनों की गहराई को एक साथ लेकर मापा जाता है
4. वर्षा-वितरण को मापना आवश्यक होता है

**Options :**

- 6863405821. 1
- 6863405822. 2
- 6863405823. 3
- 6863405824. 4

**Question Number : 57 Question Id : 6863401472 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

A large air mass swirling around a low pressure area is known as -

1. Tornado
2. Cyclone
3. Hadley cell
4. Anti-Cyclone

**Options :**

- 6863405825. 1
- 6863405826. 2
- 6863405827. 3
- 6863405828. 4

**Question Number : 57 Question Id : 6863401472 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

एक कम दबाव वाले क्षेत्र के चारों ओर घूमते हुए एक बड़े वायु द्रव्यमान को क्या कहते हैं-

1. बवंडर
2. चक्रवात
3. Hadley cell
4. प्रतिचक्रवात

**Options :**

- 6863405825. 1

6863405826. 2  
6863405827. 3  
6863405828. 4

**Question Number : 58 Question Id : 6863401473 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

Hydrology is the study of

1. Rainwater
2. Sea water
3. Flood water
4. Surface and Ground water

**Options :**

6863405829. 1  
6863405830. 2  
6863405831. 3  
6863405832. 4

**Question Number : 58 Question Id : 6863401473 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

जल विज्ञान का अध्ययन है

1. वर्षा का पानी (जल)
2. समुद्री पानी (जल)
3. बाढ़ का जल
4. सतह और भू- जल

**Options :**

6863405829. 1  
6863405830. 2  
6863405831. 3  
6863405832. 4

**Question Number : 59 Question Id : 6863401474 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

| LIST I (Infiltration class) |           | LIST II (Rate of Infiltration) |                        |
|-----------------------------|-----------|--------------------------------|------------------------|
| A.                          | Very slow | I.                             | 0.1 to 0.5 inches/hour |
| B.                          | Slow      | II.                            | < 0.1 inches/hour      |
| C.                          | Moderate  | III.                           | > 1.0 inches/hour      |
| D.                          | Rapid     | IV.                            | 0.5 to 1.0 inches/hour |

Choose the correct answer from the options given below:

1. A-II, B-I, C-IV, D-III
2. A-I, B-II, C-III, D-IV
3. A-III, B-IV, C-II, D-I
4. A-IV, B-III, C-I, D-II

Options :

6863405833. 1  
6863405834. 2  
6863405835. 3  
6863405836. 4

Question Number : 59 Question Id : 6863401474 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

सूची I का सूची II से मिलान कीजिए

| सूची I (रिसाव वर्ग) |           | सूची II (रिसाव दर) |                     |
|---------------------|-----------|--------------------|---------------------|
| A.                  | बहुत धीमा | I.                 | 0.1 से 0.5 इंच/घंटा |
| B.                  | धीमा      | II.                | < 0.1 इंच/घंटा      |
| C.                  | मध्यम     | III.               | > 1.0 इंच/घंटा      |
| D.                  | क्षिप्र   | IV.                | 0.5 से 1.0 इंच/घंटा |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-II, B-I, C-IV, D-III
2. A-I, B-II, C-III, D-IV
3. A-III, B-IV, C-II, D-I
4. A-IV, B-III, C-I, D-II

Options :

6863405833. 1  
6863405834. 2  
6863405835. 3  
6863405836. 4

Question Number : 60 Question Id : 6863401475 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Coefficient of volume change ( $mv$ ) is given by -

Where  $a_v$  is coefficient of compressibility and  $e_0$  is initial void ratio corresponding to the initial pressure.

1.  $mv = \frac{a_v}{1 + e_0}$

2.  $mv = \frac{1 + e_0}{a_v}$

3.  $mv = \frac{1 - e_0}{a_v}$

4.  $mv = \frac{a_v}{1 - e_0}$

Options :

6863405837. 1

6863405838. 2

6863405839. 3

6863405840. 4

Question Number : 60 Question Id : 6863401475 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

द्रव्यमान परिवर्तन का गुणांक

$a_v$  - गुणांक (दबाव का)

$e_0$  रिक्तिक अनुपात / आरंभिक दबाव

1.  $mv = \frac{a_v}{1 + e_0}$

2.  $mv = \frac{1 + e_0}{a_v}$

3.  $mv = \frac{1 - e_0}{a_v}$

4.  $mv = \frac{a_v}{1 - e_0}$

Options :

6863405837. 1

6863405838. 2

6863405839. 3

6863405840. 4

**Question Number : 61 Question Id : 6863401476 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Determination of water content of a salt sample suspected to contain gypsum is made by drying the sample for longer period at a temperature not more than

1. 60°C
2. 80°C
3. 100°C
4. 110°C

**Options :**

6863405841. 1  
6863405842. 2  
6863405843. 3  
6863405844. 4

**Question Number : 61 Question Id : 6863401476 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

जिप्सम युक्त मिट्टी के नमूने में पानी की मात्रा ज्ञात करने के लिए नमूने को अधिकतम समय तक किस तापमान पर सुखाया जाता है

1. 60°C
2. 80°C
3. 100°C
4. 110°C

**Options :**

6863405841. 1  
6863405842. 2  
6863405843. 3  
6863405844. 4

**Question Number : 62 Question Id : 6863401477 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

On analysis of particle size distribution of a soil, it is found that  $D_{10} = 0.2$  mm,  $D_{30} = 0.3$  mm and  $D_{60} = 0.8$  mm. The coefficient of curvature, as given by the particle size of distribution curve will be -

1. 0.4
2. 0.5
3. 0.6
4. 0.2

**Options :**

6863405845. 1  
6863405846. 2  
6863405847. 3  
6863405848. 4

**Question Number : 62 Question Id : 6863401477 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

मिट्टी के कण आमाप वितरण का विश्लेषण करने पर  $D_{10} = 0.2$  mm,  $D_{30} = 0.3$  mm और  $D_{60} = 0.8$  mm पाया गया, तो कम आमाप वितरण के आधार पर वक्रता का गुणांक क्या होगा-

1. 0.4
2. 0.5
3. 0.6
4. 0.2

**Options :**

6863405845. 1  
6863405846. 2  
6863405847. 3  
6863405848. 4

**Question Number : 63 Question Id : 6863401478 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Consistency index ( $IC$ ) is defined as

where  $w$  is natural water content of soil,  $w_L$  is liquid limit of soil;  $w_P$  is plasticity limit of soil;  $IP$  is plasticity index of soil sample.

1.  $IC = \frac{w_L - w}{IP}$

2.  $IC = w_L - w_P$

3.  $IC = \frac{w - w_P}{IP}$

4.  $IC = w_P - w_L$

**Options :**

6863405849. 1

6863405850. 2

6863405851. 3

6863405852. 4

**Question Number : 63 Question Id : 6863401478 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

गाढ़ता सूचकांक को किस प्रकार प्ररिभाषित किया जाता है

$w$ -मिट्टी का प्राकृतिक जलांश

$w_L$ - मिट्टी की द्रव सीमा

$w_P$ - मिट्टी की सुघट्य सीमा

$IP$  - सुघट्यता सूचकांक

1.  $IC = \frac{w_L - w}{IP}$

2.  $IC = w_L - w_P$

3.  $IC = \frac{w - w_P}{IP}$

4.  $IC = w_P - w_L$

**Options :**

6863405849. 1

6863405850. 2

6863405851. 3

6863405852. 4

Question Number : 64 Question Id : 6863401479 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Give below are two statements :

**Statement - I :** The zero-air curve is non-linear.

**Statement - II :** The dry density at 100% saturation is non-linear function of void ratio.

In the light of the above statements, choose the **correct answer** from the options given below:

1. Both Statement I and Statement II are true.
2. Both Statement I and Statement II are false.
3. Statement I is true but Statement II is false.
4. Statement I is false but Statement II is true.

**Options :**

- 6863405853. 1
- 6863405854. 2
- 6863405855. 3
- 6863405856. 4

Question Number : 64 Question Id : 6863401479 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:  
नीचे दो कथन दिए हैं:

कथन I: शून्य वायु वक्र अरेखिक है।

कथन II: 100% संतृप्ति पर शुष्क घनत्व रिक्तिक अनुपात का अरेखिक प्रकार्य है।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सही हैं
2. कथन I और II दोनों गलत हैं
3. कथन I सही है, लेकिन कथन II गलत है
4. कथन I गलत है, लेकिन कथन II सही है

**Options :**

- 6863405853. 1
- 6863405854. 2
- 6863405855. 3
- 6863405856. 4

Question Number : 65 Question Id : 6863401480 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Cohesive soil are generally

1. Plastic and also compressible
2. Elastic and also compressible
3. Plastic and incompressible
4. Elastic and incompressible

Options :

6863405857. 1  
6863405858. 2  
6863405859. 3  
6863405860. 4

Question Number : 65 Question Id : 6863401480 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

संसजक मृदा आमतौर पर निम्न प्रकार की होती है-

1. सुघट्य और संपीड्य
2. प्रत्यास्थ और संपीड्य
3. सुघट्य और असंपीड्य
4. प्रत्यास्थ और असंपीड्य

Options :

6863405857. 1  
6863405858. 2  
6863405859. 3  
6863405860. 4

Question Number : 66 Question Id : 6863401481 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

The Terzaghi's general bearing capacity equation for a continuous footing is given by:

where  $N_c$ ,  $N_q$ ,  $N_r$  are the bearing capacity factors.

1.  $q_f = C N_c + r D N_q + 0.5 r B N_r$

2.  $q_f = C N_c - r D N_q + 0.5 r B N_r$

3.  $q_f = C N_c - r D N_q + 0.5 r B N_r$

4.  $q_f = C N_c + r D N_q + 0.5 r B N_r$

**Options :**

6863405861. 1

6863405862. 2

6863405863. 3

6863405864. 4

**Question Number : 66 Question Id : 6863401481 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

संतत नीव के लिए Terzaghi's का सामान्य आधार क्षमता समीकरण निम्न में से क्या होगा-

1.  $q_f = C N_c + r D N_q + 0.5 r B N_r$

2.  $q_f = C N_c - r D N_q + 0.5 r B N_r$

3.  $q_f = C N_c - r D N_q + 0.5 r B N_r$

4.  $q_f = C N_c + r D N_q + 0.5 r B N_r$

**Options :**

6863405861. 1

6863405862. 2

6863405863. 3

6863405864. 4

**Question Number : 67 Question Id : 6863401482 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

In a direct shear test, the shear strength and normal stress on a dry sand sample at failure are  $0.6 \text{ kg/cm}^2$  and  $10 \text{ kg/cm}^2$ , respectively. The angle of internal friction of the sand will be nearly

1.  $25^\circ$

2.  $31^\circ$

3.  $37^\circ$

4.  $43^\circ$

**Options :**

- 6863405865. 1
- 6863405866. 2
- 6863405867. 3
- 6863405868. 4

**Question Number : 67 Question Id : 6863401482 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

प्रत्यक्ष अपरूपण सामर्थ्य परीक्षण में, विफलता पर शुष्क रेत के नमूने पर कतरनी की ताकत और सामान्य तनाव क्रमशः  $0.6 \text{ kg/cm}^2$  और  $10 \text{ kg/cm}^2$  है। रेत के आंतरिक घर्षण का कोण लगभग क्या होगा।

- 1.  $25^\circ$
- 2.  $31^\circ$
- 3.  $37^\circ$
- 4.  $43^\circ$

**Options :**

- 6863405865. 1
- 6863405866. 2
- 6863405867. 3
- 6863405868. 4

**Question Number : 68 Question Id : 6863401483 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

If the soil sample is having porosity 50% and degree of saturation at 90% then its percentage air void is -

- 1. 5%
- 2. 50%
- 3. 45%
- 4. 4.5%

**Options :**

- 6863405869. 1
- 6863405870. 2
- 6863405871. 3
- 6863405872. 4

**Question Number : 68 Question Id : 6863401483 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

यदि मिट्टी के नमूने में सरंध्रता 50% और संतृप्ति की मात्रा 90% है तो वायु रिक्ति प्रतिशत ज्ञात करें।

1. 5%
2. 50%
3. 45%
4. 4.5%

**Options :**

6863405869. 1  
6863405870. 2  
6863405871. 3  
6863405872. 4

**Question Number : 69 Question Id : 6863401484 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Which of the following expression represents the correct value of coefficient of curvature?

1.  $C_c = \frac{(D_{30})^2}{D_{60} \times D_{10}}$
2.  $C_c = \frac{(D_{60})^2}{D_{30} \times D_{10}}$
3.  $C_c = \frac{(D_{10})^2}{D_{60} \times D_{30}}$
4.  $C_c = \frac{D_{30}}{D_{60} \times D_{10}}$

**Options :**

6863405873. 1  
6863405874. 2  
6863405875. 3  
6863405876. 4

**Question Number : 69 Question Id : 6863401484 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से कौनसा समीकरण वक्रता गुणांक को सही रूप में दर्शाता है?

$$1. C_c = \frac{(D_{30})^2}{D_{60} \times D_{10}}$$

$$2. C_c = \frac{(D_{60})^2}{D_{30} \times D_{10}}$$

$$3. C_c = \frac{(D_{10})^2}{D_{60} \times D_{30}}$$

$$4. C_c = \frac{D_{30}}{D_{60} \times D_{10}}$$

Options :

6863405873. 1

6863405874. 2

6863405875. 3

6863405876. 4

Question Number : 70 Question Id : 6863401485 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

| LIST I (Contaminated water) |                       | LIST II (Infectious disease) |                                                                         |
|-----------------------------|-----------------------|------------------------------|-------------------------------------------------------------------------|
| A.                          | Water borne disease   | I.                           | involve a host that depend on water for its habitat eg. mosquitoes      |
| B.                          | Water-washed disease  | II.                          | spread by ingestion of contaminated water eg. Cholera                   |
| C.                          | Water-related disease | III.                         | lack of sufficient water to maintain cleanliness e.g. trachoma          |
| D.                          | Water-based disease   | IV.                          | involves water contact but don't require ingestion eg. schistosomiasis. |

Choose the **correct answer** from the options given below:

1. A-I, B-II, C-III, D-IV

2. A-II, B-III, C-II, D-IV

3. A-III, B-II, C-IV, D-I

4. A-IV, B-III, C-II, D-I

Options :

6863405877. 1

6863405878. 2

6863405879. 3

6863405880. 4

Question Number : 70 Question Id : 6863401485 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

सूची I का सूची II से मिलान कीजिए

| सूची I (दूषित जल) |                   | सूची II (संक्रमित विमारियाँ) |                                                                |
|-------------------|-------------------|------------------------------|----------------------------------------------------------------|
| A.                | जल-जनित बीमारी    | I.                           | मच्छर जैसे जल में पनपने वाले परपोषी पर निर्भर करती हैं         |
| B.                | जल-धूषित बीमारी   | II.                          | संक्रमित पानी पीने से जैसे हैजा                                |
| C.                | जल-संबंधित बीमारी | III.                         | स्वच्छता बनाये रखने के लिए पानी की कमी के कारण जैसे टेकोमा     |
| D.                | जल-आधारित बीमारी  | IV.                          | जल संपर्क शामिल है लेकिन अन्तर्ग्रहण नहीं जैसे सिस्टोसोमियासिस |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-I, B-II, C-III, D-IV
2. A-II, B-III, C-II, D-IV
3. A-III, B-II, C-IV, D-I
4. A-IV, B-III, C-II, D-I

Options :

6863405877. 1  
6863405878. 2  
6863405879. 3  
6863405880. 4

Question Number : 71 Question Id : 6863401486 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Match List I with List II

| LIST I (Aquifer) |                       | LIST II (Characteristic) |                                                                                 |
|------------------|-----------------------|--------------------------|---------------------------------------------------------------------------------|
| A.               | Aquitard/Aquiclude    | I.                       | water in the well rises above ground level and flows without pumping.           |
| B.               | Artesian well         | II.                      | a saturated geological layer that is permeable enough to allow easy water flow. |
| C.               | Flowing Artesian well | III.                     | Impermeable layer that restricts the movement of ground water.                  |
| D.               | Aquifer               | IV.                      | water naturally rising above the upper surface of the confined aquifer.         |

Choose the correct answer from the options given below:

1. A-IV, B-III, C-II, D-I

2. A-III, B-IV, C-I, D-II

3. A-IV, B-I, C-II, D-III

4. A-I, B-II, C-III, D-IV

Options :

6863405881. 1

6863405882. 2

6863405883. 3

6863405884. 4

Question Number : 71 Question Id : 6863401486 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

सूची I का सूची II से मिलान कीजिए

| सूची I (जलभर) |                       | सूची II (विशेषताएं) |                                                               |
|---------------|-----------------------|---------------------|---------------------------------------------------------------|
| A.            | मित जलभृत/ एक्कीक्लूड | I.                  | कूप का पानी जमीन की सतह से ऊपर आकर बिना किसी पंप के बहता है   |
| B.            | उत्सृत कूप            | II.                 | एक संतृप्त भूगर्भीय परत जो पारगम्य जलप्रवाह की अनुमति देती है |
| C.            | प्रवाही उत्सृत कूप    | III.                | एक अपारगम्य परत जो भूमिजल की गति को रोकती है                  |
| D.            | जलभर                  | IV.                 | पानी प्राकृतिक रूप से सीमित जलभृत की ऊपरी सतह के ऊपर उठता है  |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-IV, B-III, C-II, D-I

2. A-III, B-IV, C-I, D-II

3. A-IV, B-I, C-II, D-III

4. A-I, B-II, C-III, D-IV

Options :

6863405881. 1

6863405882. 2

6863405883. 3

6863405884. 4

**Question Number : 72 Question Id : 6863401487 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

The rate of accumulation of sludge per person per year is

1. 10 liter

2. 15 liter

3. 20 liter

4. 25 liter

**Options :**

6863405885. 1

6863405886. 2

6863405887. 3

6863405888. 4

**Question Number : 72 Question Id : 6863401487 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

आपंक की प्रतिव्यक्ति प्रतिवर्ष संचयन दर क्या है

1. 10 लीटर

2. 15 लीटर

3. 20 लीटर

4. 25 लीटर

**Options :**

6863405885. 1

6863405886. 2

6863405887. 3

6863405888. 4

**Question Number : 73 Question Id : 6863401488 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

In Chezy's formula  $V = C\sqrt{RS}$  for calculating the velocity of flow in circular sewer of diameter  $D$  running full, the value of hydraulic mean radius is

1.  $D$

2.  $\frac{D}{2}$

3.  $\frac{D}{3}$

4.  $\frac{D}{4}$

**Options :**

6863405889. 1

6863405890. 2

6863405891. 3

6863405892. 4

**Question Number : 73 Question Id : 6863401488 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

चेजी सूत्र  $V = C\sqrt{RS}$  से एक वृताकार सीवर में बहाव की गति मापी जाती है। वृताकार सीवर के फुल व्यास  $D$  में बहने पर द्रवीय माध्य त्रिज्या का मान क्या होगा-

1.  $D$

2.  $\frac{D}{2}$

3.  $\frac{D}{3}$

4.  $\frac{D}{4}$

**Options :**

6863405889. 1

6863405890. 2

6863405891. 3

6863405892. 4

**Question Number : 74 Question Id : 6863401489 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

If the grain size of soil increases

1. Surface area increase
2. Specific retention increase
3. Specific yield and water supply in well increase
4. Specific yield and water supply in well decrease

**Options :**

6863405893. 1  
6863405894. 2  
6863405895. 3  
6863405896. 4

**Question Number : 74 Question Id : 6863401489 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

मृदा के कण -आमाप में वृद्धि से

1. प्रष्टीय क्षेत्रफल में वृद्धि होगी
2. विशिष्ट धारिता बढ़ेगी
3. कुएँ में पानी आपूर्ति और विशिष्ट लब्धि बढ़ेगी
4. कुएँ में पानी आपूर्ति और विशिष्ट लब्धि कम होगी

**Options :**

6863405893. 1  
6863405894. 2  
6863405895. 3  
6863405896. 4

**Question Number : 75 Question Id : 6863401490 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

The quantity of water retained by the sub-soil against gravity is known

1. Yield
2. Porosity
3. Specific yield
4. Specific retention

**Options :**

6863405897. 1

6863405898. 2  
6863405899. 3  
6863405900. 4

**Question Number : 75 Question Id : 6863401490 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

अवमृदा द्वारा गुरुत्वाकर्षण बल के विरुद्ध जल धारण क्या कहलाता है

1. लब्धि
2. सरंध्रता
3. विशिष्ट लब्धि
4. विशिष्ट धारण

**Options :**

6863405897. 1  
6863405898. 2  
6863405899. 3  
6863405900. 4

**Question Number : 76 Question Id : 6863401491 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

The length of hydraulic jump is roughly

1. 2 to 3 times its height
2. 3 to 5 times its height
3. 5 to 7 times its height
4. 1 to 2 times its height

**Options :**

6863405901. 1  
6863405902. 2  
6863405903. 3  
6863405904. 4

**Question Number : 76 Question Id : 6863401491 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

द्रवीय प्लुति की लंबाई मोटे तौर पर क्या होती है।

1. ऊँचाई की 2 से 3 गुना
2. ऊँचाई की 3 से 5 गुना
3. ऊँचाई की 5 से 7 गुना
4. ऊँचाई की 1 से 2 गुना

**Options :**

6863405901. 1  
6863405902. 2  
6863405903. 3  
6863405904. 4

**Question Number : 77 Question Id : 6863401492 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

The flow in open channel is said to be sub-critical if the Froude member is:

1. less than 1.0
2. equal to 1.0
3. greater than 1.0
4. less than 0

**Options :**

6863405905. 1  
6863405906. 2  
6863405907. 3  
6863405908. 4

**Question Number : 77 Question Id : 6863401492 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

विवृत चैनल प्रवाह उपक्रांतिक होगा अगर Froude number -

1. 1.0 से कम है
2. 1.0 के बराबर है
3. 1.0 से बड़ा है
4. शून्य से कम है

**Options :**

6863405905. 1  
6863405906. 2  
6863405907. 3  
6863405908. 4

**Question Number : 78 Question Id : 6863401493 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

During tillage soil particles move ahead and around the moving tool as they fail in shear. Therefore, tillage is a \_\_\_\_\_ process.

1. Static
2. Dynamic
3. Thermal / Mechanical
4. Chemical

**Options :**

6863405909. 1  
6863405910. 2  
6863405911. 3  
6863405912. 4

**Question Number : 78 Question Id : 6863401493 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

जुताई के दौरान मिट्टी के कण मूविंग टूल के आगे ओर चारो ओर घूमते हैं क्योंकि वे अपरुपरण में विफल होते हैं। इसलिए जुताई एक \_\_\_\_\_ प्रक्रिया है

1. स्थिर
2. गतिशील
3. तापीय/ मशीनी
4. रासायनिक

**Options :**

6863405909. 1  
6863405910. 2  
6863405911. 3  
6863405912. 4

**Question Number : 79 Question Id : 6863401494 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

Which of the following is not an advantage of farm mechanization -

1. increase in farm labor productivity
2. increase in crop productivity
3. increase in fertilizers and seeds
4. increase in profitability owing to efficient utilization of inputs.

**Options :**

6863405913. 1  
6863405914. 2  
6863405915. 3  
6863405916. 4

**Question Number : 79 Question Id : 6863401494 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से कौनसा एक कृषि मशीनीकरण का लाभ नहीं है

1. कृषि श्रम के उत्पादन में वृद्धि
2. फसल के उत्पादन क्षमता में वृद्धि
3. खाद और बीजों की वृद्धि
4. निविष्ट सदुपयोग के कारण लाभवृद्धि

**Options :**

6863405913. 1  
6863405914. 2  
6863405915. 3  
6863405916. 4

**Question Number : 80 Question Id : 6863401495 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Which of the following governs the size of a seed rill :-

1. length  $\times$  width of the machine
2. amount of seed sown per unit time
3. area covered by the machine per unit time
4. number of furrow openers  $\times$  distance b/w two furrow openers

**Options :**

6863405917. 1

6863405918. 2  
6863405919. 3  
6863405920. 4

**Question Number : 80 Question Id : 6863401495 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से एक बीज वपित्र के आकार को नियंत्रित करता है-

1. मशीन की लम्बाई × चौड़ाई
2. प्रति इकाई समय में बोए गए बीज की मात्रा
3. प्रति इकाई समय में मशीन द्वारा उपस्थित क्षेत्र
4. कितने हल खुले × दो हल रेखा के बीच की दूरी

**Options :**

6863405917. 1  
6863405918. 2  
6863405919. 3  
6863405920. 4

**Question Number : 81 Question Id : 6863401496 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

The penetration power of a disc harrow can be manipulated by :

1. Gang angle
2. Tilt angle
3. Disc angle
4. Right angle

**Options :**

6863405921. 1  
6863405922. 2  
6863405923. 3  
6863405924. 4

**Question Number : 81 Question Id : 6863401496 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

तवादार हेरो की वेधन मे हेरफेर किसके द्वारा किया जा सकता है

1. गण कोण
2. नति कोण
3. डिस्क कोण
4. सम कोण

**Options :**

6863405921. 1  
6863405922. 2  
6863405923. 3  
6863405924. 4

**Question Number : 82 Question Id : 6863401497 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

Which of the following two types of cylinders are used on power wheat threshers :-

1. Serrated disc and rasp bar
2. Spike tooth and hammer mill
3. Hammer mill and flails
4. Spike tooth and wire lootype

**Options :**

6863405925. 1  
6863405926. 2  
6863405927. 3  
6863405928. 4

**Question Number : 82 Question Id : 6863401497 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

बिजली से चलने वाले गेहू थ्रेशर मे निम्नलिखित में से कौनसा सिलेंडर होता है

1. Serrated disc and rasp bar
2. Spike tooth and hammer mill
3. Hammer mill and flails
4. Spike tooth and wire lootype

**Options :**

6863405925. 1

6863405926. 2  
6863405927. 3  
6863405928. 4

**Question Number : 83 Question Id : 6863401498 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

The primary constituent of biogas is

1. Ethane
2. Pentane
3. Methane
4. Propane

**Options :**

6863405929. 1  
6863405930. 2  
6863405931. 3  
6863405932. 4

**Question Number : 83 Question Id : 6863401498 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

बायोगैस का प्राथमिक घटक क्या है

1. इथेन
2. पेंटेन
3. मिथेन
4. प्रोपेन

**Options :**

6863405929. 1  
6863405930. 2  
6863405931. 3  
6863405932. 4

**Question Number : 84 Question Id : 6863401499 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

A typical two-cycle spark-ignition engine uses the crankcase as an air pump to compress the air/fuel mixture. Which of the following is/are not related to spark ignition engine :

1. Crank Dead Center (CDC)
2. Bottom Dead Center (BDC)
3. Middle Dead Center (MDC)
4. Head Dead Center (HDC)

**Options :**

6863405933. 1  
6863405934. 2  
6863405935. 3  
6863405936. 4

**Question Number : 84 Question Id : 6863401499 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

एक two-cycle spark-ignition engine वायु-ईंधन मिश्रण को संपीडित करने के लिए वायु पंप के रूप में क्रेक केस में उपयोग करता है। निम्नलिखित में से कौनसा स्पार्क इग्निशन से संबंधित नहीं है

1. Crank Dead Center (CDC)
2. Bottom Dead Center (BDC)
3. Middle Dead Center (MDC)
4. Head Dead Center (HDC)

**Options :**

6863405933. 1  
6863405934. 2  
6863405935. 3  
6863405936. 4

**Question Number : 85 Question Id : 6863401500 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

The expressions for diesel engine compression ratio and diesel engine power are :-

$$1. r_c = \frac{V_d - V_c}{V_c}; P = 2NT$$

$$2. r_c = \frac{V_d + V_c}{V_c}; P = 2\pi NT$$

$$3. r_c = \frac{V + V_d}{V_d}; P = \frac{2\pi T}{N}$$

$$4. r_c = \frac{V + V_c}{V_c}; P = \frac{2\pi N}{T}$$

**Options :**

6863405937. 1

6863405938. 2

6863405939. 3

6863405940. 4

**Question Number : 85 Question Id : 6863401500 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

डीजल इंजन संपीड़न अनुपात और डिजल इंजन शक्ति के लिए कोनसी अभिव्यक्ति उपयुक्त है-

$$1. r_c = \frac{V_d - V_c}{V_c}; P = 2NT$$

$$2. r_c = \frac{V_d + V_c}{V_c}; P = 2\pi NT$$

$$3. r_c = \frac{V + V_d}{V_d}; P = \frac{2\pi T}{N}$$

$$4. r_c = \frac{V + V_c}{V_c}; P = \frac{2\pi N}{T}$$

**Options :**

6863405937. 1

6863405938. 2

6863405939. 3

6863405940. 4

**Question Number : 86 Question Id : 6863401501 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

| LIST I<br>(Category) |   | LIST II<br>(PTO Power at rated rotational<br>frequency of engine (kW)) |            |
|----------------------|---|------------------------------------------------------------------------|------------|
| A.                   | 1 | I.                                                                     | 80 to 185  |
| B.                   | 2 | II.                                                                    | upto 48    |
| C.                   | 3 | III.                                                                   | upto 98    |
| D.                   | 4 | IV.                                                                    | 150 to 350 |

Choose the correct answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-II, B-III, C-I, D-IV
3. A-III, B-IV, C-II, D-I
4. A-IV, B-III, C-II, D-I

Options :

6863405941. 1  
6863405942. 2  
6863405943. 3  
6863405944. 4

Question Number : 86 Question Id : 6863401501 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

सूची I का सूची II से मिलान कीजिए

| सूची I (श्रेणी) |   | सूची II (इंजन की रेटेड घूर्णी आवृत्ति शक्ति (KW)) |            |
|-----------------|---|---------------------------------------------------|------------|
| A.              | 1 | I.                                                | 80 से 85   |
| B.              | 2 | II.                                               | 48 तक      |
| C.              | 3 | III.                                              | 98 तक      |
| D.              | 4 | IV.                                               | 150 से 350 |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-I, B-II, C-III, D-IV
2. A-II, B-III, C-I, D-IV
3. A-III, B-IV, C-II, D-I
4. A-IV, B-III, C-II, D-I

Options :

6863405941. 1  
6863405942. 2  
6863405943. 3  
6863405944. 4

Question Number : 87 Question Id : 6863401502 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Match List I with List II

Physical Principles of Continuously Variable Transmission (CVT)

| LIST I (Type of CVT) |              | LIST II (Principle of Energy) |                                               |
|----------------------|--------------|-------------------------------|-----------------------------------------------|
| A.                   | Hydrodynamic | I.                            | Hydrostatic forces at pump and motor          |
| B.                   | Mechanical   | II.                           | Electromagnetic forces at generator and motor |
| C.                   | Hydrostatic  | III.                          | Mass forces at pump and turbine               |
| D.                   | Electrical   | IV.                           | Traction forces at pump and motor             |

Choose the correct answer from the options given below:

- 1. A-I, B-II, C-III, D-IV
- 2. A-II, B-IV, C-I, D-III
- 3. A-III, B-IV, C-I, D-II
- 4. A-IV, B-III, C-II, D-I

Options :

- 6863405945. 1
- 6863405946. 2
- 6863405947. 3
- 6863405948. 4

Question Number : 87 Question Id : 6863401502 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

सूची I का सूची II से मिलान कीजिए

| सूची I (CVT)   | सूची II (ऊर्ध्वा संचरण सिद्धांत)           |
|----------------|--------------------------------------------|
| A. द्रवगतिकीय  | I. पंप और मोटर में द्रवगतिकीय बल           |
| B. यांत्रिक    | II. विद्युत चुम्बकीय जनरेटर और मोटर में बल |
| C. द्रवस्थैतिक | III. पंप और टर्बाइन पर संचयी बल            |
| D. विद्युतीय   | IV. पंप और मोटर पर कर्षण बल                |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-I, B-II, C-III, D-IV
2. A-II, B-IV, C-I, D-III
3. A-III, B-IV, C-I, D-II
4. A-IV, B-III, C-II, D-I

Options :

6863405945. 1  
6863405946. 2  
6863405947. 3  
6863405948. 4

Question Number : 88 Question Id : 6863401503 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Match List I with List II

| LIST I (Soil colour)       | LIST II (Characteristic compound)         |
|----------------------------|-------------------------------------------|
| A. Black                   | I. Organic matter and Iron Oxides         |
| B. Red / Brown / Yellow    | II. Quartz                                |
| C. Brown                   | III. Titeniferous and magnetite compounds |
| D. White / Lighter colours | IV. Iron and manganese oxides             |

Choose the **correct answer** from the options given below:

1. A-IV, B-III, C-II, D-I
2. A-III, B-IV, C-I, D-II
3. A-II, B-I, C-IV, D-III
4. A-I, B-II, C-III, D-IV

Options :

6863405949. 1  
6863405950. 2  
6863405951. 3  
6863405952. 4

Question Number : 88 Question Id : 6863401503 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

सूची I का सूची II से मिलान कीजिए

| सूची I (मिट्टी का रंग) | सूची II (मिश्रित विशेषताएं)        |
|------------------------|------------------------------------|
| A. काली                | I. कार्बनिक पदार्थ और लौह ऑक्साइड  |
| B. लाल/ब्राउन/ पीली    | II. कार्टेज                        |
| C. ब्राउन              | III. टिटैनफेरस और मैग्नेटाइट योगिक |
| D. सफेद/ हल्के रंग     | IV. लौह और मैगनीज ऑक्साइड          |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-IV, B-III, C-II, D-I
2. A-III, B-IV, C-I, D-II
3. A-II, B-I, C-IV, D-III
4. A-I, B-II, C-III, D-IV

Options :

6863405949. 1  
6863405950. 2  
6863405951. 3  
6863405952. 4

Question Number : 89 Question Id : 6863401504 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

In a purely cohesive soil the critical center lies at the intersection of

1. perpendicular bisector of slope and the locus of the center
2. perpendicular drawn at  $1/3^{\text{rd}}$  slope from toe and the locus of the center
3. perpendicular drawn at  $2/3^{\text{rd}}$  slope from toe and the locus of the center
4. Dissectional angle

Options :

6863405953. 1  
6863405954. 2  
6863405955. 3  
6863405956. 4

Question Number : 89 Question Id : 6863401504 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

पूरी तरह से संसंजक मृदा में, क्रांतिक केन्द्र कहाँ पर होता है?

1. ढलान के लंबवत द्विभाजक और केन्द्र स्थान पर
2. आगे के सिरे पर  $1/3^{rd}$  पर लंबवत और केन्द्र स्थान पर
3. आगे के सिरे की ओर  $2/3^{rd}$  पर लंबवत और केन्द्र स्थान पर
4. दिशात्मक कोण

Options :

- 6863405953. 1
- 6863405954. 2
- 6863405955. 3
- 6863405956. 4

Question Number : 90 Question Id : 6863401505 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The Thiessen method of estimating average rainfall provides \_\_\_\_\_ estimation as compared to arithmetic mean method :

1. Less accurate
2. More accurate
3. Equally accurate
4. Specific

Options :

- 6863405957. 1
- 6863405958. 2
- 6863405959. 3
- 6863405960. 4

Question Number : 90 Question Id : 6863401505 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

थिएसेन विधि द्वारा औसत वर्षा का अनुमान, अर्थमेटिक माध्यम की विधि के अनुमान से क्या होगी

1. कम सही होगा
2. ज्यादा सही होगा
3. बराबर सही होगा
4. विशिष्ट होगा

Options :

6863405957. 1  
6863405958. 2  
6863405959. 3  
6863405960. 4

**Question Number : 91 Question Id : 6863401506 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

Erodibility is susceptibility of soil to erosion. It varies with -

- A. Soil texture
- B. Soil colour
- C. Aggregate stability
- D. Shear strength
- E. Organic matter content

Choose the **most appropriate answer** from the option given below :

- 1. A, B, C, D only
- 2. B, C, D, E only
- 3. C, D, E, A only
- 4. D, E, A, B only

**Options :**

6863405961. 1  
6863405962. 2  
6863405963. 3  
6863405964. 4

**Question Number : 91 Question Id : 6863401506 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Wrong Marks : 1**

अपरदनशीलता और मिट्टी कटाव को निम्नलिखित में से कौन प्रभावित करता है:

- A. मिट्टी की बनावट
- B. मिट्टी का रंग
- C. समग्र स्थिरता
- D. अपरूपण बल
- E. जैवपदार्थ की मात्रा

नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:

- 1. केवल A, B, C, D
- 2. केवल B, C, D, E
- 3. केवल C, D, E, A
- 4. केवल D, E, A, B

**Options :**

- 6863405961. 1
- 6863405962. 2
- 6863405963. 3
- 6863405964. 4

**Question Number : 92 Question Id : 6863401507 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

The concept of sediment delivery ratio ( $D_r$ ) is used to estimate the sediment yield of a watershed. The sediment delivery ratio is defined as -

- 1. Soil loss of individual and specific plot.
- 2. Fraction of gross erosion that is transporter.
- 3. Erosion in individual and gully erosion.
- 4. Sediment produced from sheet erosion.

**Options :**

- 6863405965. 1
- 6863405966. 2
- 6863405967. 3
- 6863405968. 4

**Question Number : 92 Question Id : 6863401507 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

तलछट निकास अनुपात का उपयोग तलछट उपज निकालने के लिए किया जाता है। तलछट निकास अनुपात की परिभाषा क्या होगी?

1. व्यक्तिगत और विशिष्ट भूखंड मृदा हास
2. आंशिक सकल अपरदन का वह भाग जो मापन बिंदु तक प्रवाहित होता है।
3. व्यक्तिगत और अवनालिका अपरदन
4. पृष्ठ अपरदन से उत्पन्न तलछट

Options :

6863405965. 1  
6863405966. 2  
6863405967. 3  
6863405968. 4

Question Number : 93 Question Id : 6863401508 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

In the quadrantal bearing system, a whole circle bearing of  $293^{\circ}30'$  can be expresses as :

1.  $N23^{\circ}30'W$
2.  $W23^{\circ}30'N$
3.  $N66^{\circ}30'W$
4.  $S113^{\circ}30'N$

Options :

6863405969. 1  
6863405970. 2  
6863405971. 3  
6863405972. 4

Question Number : 93 Question Id : 6863401508 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

एक पूर्ण द्रक् bearing प्रणाली में  $293^{\circ}30'$  है तो चतुर्भुज प्रणाली में क्या होगा:

1.  $N23^{\circ}30'W$
2.  $W23^{\circ}30'N$
3.  $N66^{\circ}30'W$
4.  $S113^{\circ}30'N$

Options :

6863405969. 1  
6863405970. 2  
6863405971. 3  
6863405972. 4

**Question Number : 94 Question Id : 6863401509 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

The unit of dynamic viscosity in C.G.S. system is -

1. Poise
2. Stoke's
3. Bar
4.  $\text{Kgf/cm}^2$

**Options :**

6863405973. 1  
6863405974. 2  
6863405975. 3  
6863405976. 4

**Question Number : 94 Question Id : 6863401509 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

C.G.S. प्रणाली में एक गतिक श्यानता की ईकाइ क्या होगी।

1. Poise
2. स्टोक्स
3. बार
4.  $\text{Kgf/cm}^2$

**Options :**

6863405973. 1  
6863405974. 2  
6863405975. 3  
6863405976. 4

**Question Number : 95 Question Id : 6863401510 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

| LIST I |                                | LIST II |               |
|--------|--------------------------------|---------|---------------|
| A.     | Dynamic Viscosity              | I.      | Pascal Second |
| B.     | Force                          | II.     | Newton        |
| C.     | Pressure                       | III.    | Pascal        |
| D.     | Kinematic viscosity (cus unit) | IV.     | Stoke         |

Choose the **correct answer** from the options given below:

1. A-IV, B-II, C-I, D-III
2. A-I, B-II, C-III, D-IV
3. A-II, B-I, C-III, D-IV
4. A-I, B-II, C-IV, D-III

**Options :**

6863405977. 1  
6863405978. 2  
6863405979. 3  
6863405980. 4

**Question Number : 95 Question Id : 6863401510 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1**

सूची I का सूची II से मिलान कीजिए

| सूची I |                   | सूची II |              |
|--------|-------------------|---------|--------------|
| A.     | गतिक श्यानता      | I.      | पास्कल सेकंड |
| B.     | बल                | II.     | न्यूटन       |
| C.     | दबाव              | III.    | पास्कल       |
| D.     | शुद्धगतिक श्यानता | IV.     | स्टोक        |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-IV, B-II, C-I, D-III
2. A-I, B-II, C-III, D-IV
3. A-II, B-I, C-III, D-IV
4. A-I, B-II, C-IV, D-III

**Options :**

6863405977. 1  
6863405978. 2  
6863405979. 3  
6863405980. 4

Question Number : 96 Question Id : 6863401511 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Give below are two statements : One is labelled as **Assertion A** and the other is labelled as **Reason R** :  
**Assertion A** : The gradient of velocity at right angles to the flow is called the shear rate.  
**Reason R** : Shear rate is also known as velocity gradient or strain rate.  
In the light of the above statements, choose the **correct answer** from the options given below :

1. Both **A** and **R** are true and **R** is the correct explanation of **A**.
2. Both **A** and **R** are true and **R** is NOT the correct explanation of **A**.
3. **A** is true but **R** is false.
4. **A** is false but **R** is true.

**Options :**

- 6863405981. 1
- 6863405982. 2
- 6863405983. 3
- 6863405984. 4

Question Number : 96 Question Id : 6863401511 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

नीचे दो कथन दिए गए हैं: एक अभिकथन (Assertion A) के रूप में लिखित है और दूसरा उसके कारण (Reason R) के रूप में:

अभिकथन A: प्रवाह के समकोण पर ढाल वेग की प्रवणता को अपरुपण दर कहते हैं।

कारण R: अपरुपण दर को वेग प्रवणता विकृति दर के रूप में भी जाना जाता है।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:

1. A और R दोनों सही हैं और R, A की सही व्याख्या है
2. A और R दोनों सही हैं और R, A की सही व्याख्या नहीं है
3. A सही है लेकिन R सही नहीं है
4. A सही नहीं है लेकिन R सही है

**Options :**

- 6863405981. 1
- 6863405982. 2
- 6863405983. 3
- 6863405984. 4

Question Number : 97 Question Id : 6863401512 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Equilibrium Moisture Control (EMC) is most commonly described using which of the following equation :-

1. Coulomb's equation
2. Henderson equation
3. Bernouli's equation
4. Monod equation

Options :

6863405985. 1  
6863405986. 2  
6863405987. 3  
6863405988. 4

Question Number : 97 Question Id : 6863401512 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

साम्यक नमी अंश के लिए निम्नलिखित में से किस समीकरण का सर्वाधिक उपयोग किया जाता है-

1. Coulomb's equation
2. Henderson equation
3. Bernouli's equation
4. Monod equation

Options :

6863405985. 1  
6863405986. 2  
6863405987. 3  
6863405988. 4

Question Number : 98 Question Id : 6863401513 Question Type : MCQ Option Shuffling : No Is Question Mandatory :  
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 4 Wrong Marks : 1

Which of the following is related to blue revolution :-

1. Oil seeds
2. Fisheries
3. Crops
4. Energy Source

**Options :**

- 6863405989. 1
- 6863405990. 2
- 6863405991. 3
- 6863405992. 4

**Question Number : 98 Question Id : 6863401513 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से कौन नीली क्रांति से संबंधित है-

- 1. आयल सीड्स
- 2. मत्स्य पालन
- 3. फसलें
- 4. ऊर्जा स्रोत

**Options :**

- 6863405989. 1
- 6863405990. 2
- 6863405991. 3
- 6863405992. 4

**Question Number : 99 Question Id : 6863401514 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Which of the following is the test organism for pasteurization :-

- 1. Clostridium pasteurizatum
- 2. Bacillus subtilis
- 3. Rhizobium
- 4. Coxiella Burnetti

**Options :**

- 6863405993. 1
- 6863405994. 2
- 6863405995. 3
- 6863405996. 4

**Question Number : 99 Question Id : 6863401514 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से कौनसा पाश्चुराइजेशन के लिए परीक्षण जीव है

1. क्लोस्ट्रीडियम पेस्टाराइजेनम
2. बेसिलस सबटिलिस
3. राइजोबियम
4. कॉक्सीसेला बर्नेटी

**Options :**

6863405993. 1  
6863405994. 2  
6863405995. 3  
6863405996. 4

**Question Number : 100 Question Id : 6863401515 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

Give below are two statements :

**Statement - I :** Pasteurization refers to preservation of food by heat treatment to kill majority of microorganisms.

**Statement - II :** Unlike pasteurization, in sterilization all the microorganism are killed at low temperatures.  
In the light of the above statements, choose the **correct answer** from the options given below:

1. Both Statement I and Statement II are true.
2. Both Statement I and Statement II are false.
3. Statement I is true but Statement II is false.
4. Statement I is false but Statement II is true.

**Options :**

6863405997. 1  
6863405998. 2  
6863405999. 3  
6863406000. 4

**Question Number : 100 Question Id : 6863401515 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**  
**Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिए हैं:

कथन I: पाश्चुराइजेशन का तात्पर्य भोजन के परिरक्षण के लिए सूक्ष्म जीवों को उष्मा उपचार द्वारा खतम करने से है।

कथन II: पाश्चुराइजेशन के विपरित, अनुर्वरीकरण में सभी सूक्ष्म जीवी कम तापमान पर मारे जाते हैं।

उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

1. कथन I और II दोनों सही हैं
2. कथन I और II दोनों गलत हैं
3. कथन I सही है, लेकिन कथन II गलत है
4. कथन I गलत है, लेकिन कथन II सही है

**Options :**

6863405997. 1  
6863405998. 2  
6863405999. 3  
6863406000. 4