

National Testing Agency

Question Paper Name :	Nanoelectronics Material Sciences Eng 05th June 2023 Shift 2
Subject Name :	Nanoelectronics Material Sciences Eng
Creation Date :	2023-06-05 18:34:36
Duration :	120
Total Marks :	400
Display Marks:	Yes

Nanoelectronics Material Sciences

Group Number :	1
Group Id :	68634032
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 :	68634063
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 :	68634094
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 6863403132 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 nauaces 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 creat new genres, his important as an innovator in the history of Sanskrit literature its clearly eastblished. 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 versel 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 as 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 an old as Vedas. 'We can then translate the name Kali-dasa as 'the sevant of time', a phrase that prompts us to explore its significance.

Sub questions

Question Number : 1 Question Id : 6863403133 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 :

68634012401. 1

68634012402. 2
68634012403. 3
68634012404. 4

**Question Number : 2 Question Id : 6863403134 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 :

68634012405. 1
68634012406. 2
68634012407. 3
68634012408. 4

**Question Number : 3 Question Id : 6863403135 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 :

68634012409. 1
68634012410. 2
68634012411. 3
68634012412. 4

**Question Number : 4 Question Id : 6863403136 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 autil" "	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 :

68634012413. 1
 68634012414. 2
 68634012415. 3
 68634012416. 4

Question Number : 5 Question Id : 6863403137 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 virtuositues	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 :

68634012417. 1
 68634012418. 2
 68634012419. 3

Question Id : 6863403132 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 nauaces 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 creat new genres, his important as an innovator in the history of Sanskrit literature its clearly eastblished. 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 versel 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 as 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 an old as Vedas. 'We can then translate the name Kali-dasa as 'the sevant of time', a phrase that prompts us to explore its significance.

Sub questions

Question Number : 1 Question Id : 6863403133 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 :

- 68634012401. 1
- 68634012402. 2
- 68634012403. 3
- 68634012404. 4

Question Number : 2 Question Id : 6863403134 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 :

- 68634012405. 1
- 68634012406. 2
- 68634012407. 3
- 68634012408. 4

Question Number : 3 Question Id : 6863403135 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 :

- 68634012409. 1
- 68634012410. 2
- 68634012411. 3
- 68634012412. 4

Question Number : 4 Question Id : 6863403136 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 autil" (sic)	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 :

- 68634012413. 1
- 68634012414. 2
- 68634012415. 3
- 68634012416. 4

Question Number : 5 Question Id : 6863403137 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 :

68634012417. 1
68634012418. 2
68634012419. 3
68634012420. 4

Sub-Section Number :

2

Sub-Section Id :

68634095

Question Shuffling Allowed :

Yes

Is Section Default? :

null

Question Number : 6 Question Id : 6863403138 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 :

68634012421. 1
 68634012422. 2
 68634012423. 3
 68634012424. 4

Question Number : 6 Question Id : 6863403138 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 :

68634012421. 1
 68634012422. 2

68634012423. 3

68634012424. 4

Question Number : 7 Question Id : 6863403139 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. Why don't you take her some coffee	II.	Whittling away
C.	Every year the management is _____ at jobs. Now there are fewer than 100 employees in the company	III.	Dumbing down
D.	There are complaints that many universities 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 :

68634012425. 1

68634012426. 2

68634012427. 3

68634012428. 4

Question Number : 7 Question Id : 6863403139 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. Why don't you take her some coffee	II.	Whittling away
C.	Every year the management is _____ at jobs. Now there are fewer than 100 employees in the company	III.	Dumbing down
D.	There are complaints that many universities 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 :

68634012425. 1
68634012426. 2
68634012427. 3
68634012428. 4

Question Number : 8 Question Id : 6863403140 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 :

68634012429. 1
68634012430. 2
68634012431. 3
68634012432. 4

Question Number : 8 Question Id : 6863403140 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 :

- 68634012429. 1
- 68634012430. 2
- 68634012431. 3
- 68634012432. 4

Question Number : 9 Question Id : 6863403141 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 :

- 68634012433. 1
- 68634012434. 2
- 68634012435. 3
- 68634012436. 4

Question Number : 9 Question Id : 6863403141 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 :

68634012433. 1
68634012434. 2
68634012435. 3
68634012436. 4

**Question Number : 10 Question Id : 6863403142 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 :

68634012437. 1
68634012438. 2
68634012439. 3
68634012440. 4

**Question Number : 10 Question Id : 6863403142 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 :

68634012437. 1
68634012438. 2
68634012439. 3
68634012440. 4

**Question Number : 11 Question Id : 6863403143 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 :

- 68634012441. 1
- 68634012442. 2
- 68634012443. 3
- 68634012444. 4

Question Number : 11 Question Id : 6863403143 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 :

- 68634012441. 1
- 68634012442. 2
- 68634012443. 3
- 68634012444. 4

Question Number : 12 Question Id : 6863403144 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 :

- 68634012445. 1
- 68634012446. 2
- 68634012447. 3
- 68634012448. 4

Question Number : 12 Question Id : 6863403144 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 :

- 68634012445. 1
- 68634012446. 2
- 68634012447. 3
- 68634012448. 4

Question Number : 13 Question Id : 6863403145 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/cm² The cost of colouring use $\left(\pi = \frac{22}{7}\right)$

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

Options :

- 68634012449. 1
- 68634012450. 2
- 68634012451. 3
- 68634012452. 4

Question Number : 13 Question Id : 6863403145 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/cm² The cost of colouring use $\left(\pi = \frac{22}{7}\right)$

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

Options :

68634012449. 1
68634012450. 2
68634012451. 3
68634012452. 4

Question Number : 14 Question Id : 6863403146 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 :

68634012453. 1
68634012454. 2
68634012455. 3
68634012456. 4

Question Number : 14 Question Id : 6863403146 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 :

- 68634012453. 1
- 68634012454. 2
- 68634012455. 3
- 68634012456. 4

Question Number : 15 Question Id : 6863403147 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 :

- 68634012457. 1
- 68634012458. 2
- 68634012459. 3
- 68634012460. 4

Question Number : 15 Question Id : 6863403147 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?

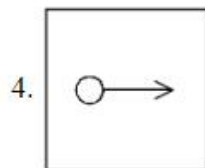
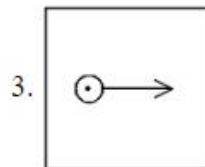
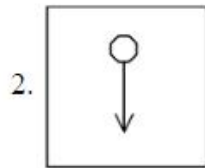
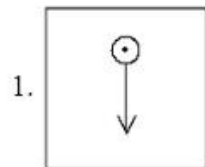
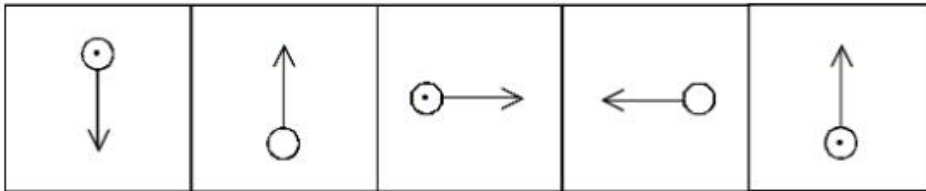
1. 60
2. 54
3. 50
4. 40

Options :

68634012457. 1
68634012458. 2
68634012459. 3
68634012460. 4

Question Number : 16 Question Id : 6863403148 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:

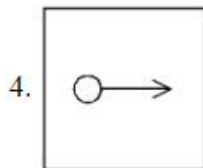
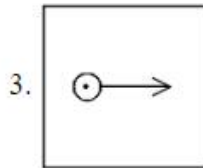
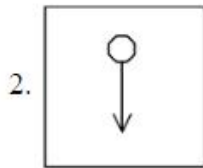
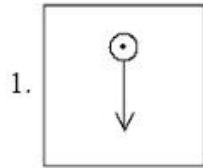
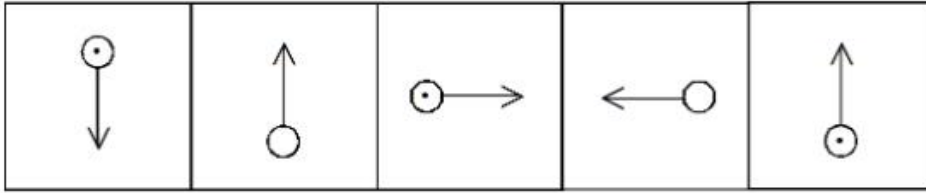


Options :

68634012461. 1
68634012462. 2
68634012463. 3
68634012464. 4

Question Number : 16 Question Id : 6863403148 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 :

68634012461. 1

68634012462. 2

68634012463. 3

68634012464. 4

Question Number : 17 Question Id : 6863403149 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 :

- 68634012465. 1
- 68634012466. 2
- 68634012467. 3
- 68634012468. 4

Question Number : 17 Question Id : 6863403149 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 :

- 68634012465. 1
- 68634012466. 2
- 68634012467. 3
- 68634012468. 4

Question Number : 18 Question Id : 6863403150 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 :

- 68634012469. 1
- 68634012470. 2
- 68634012471. 3
- 68634012472. 4

Question Number : 18 Question Id : 6863403150 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 :

- 68634012469. 1
- 68634012470. 2
- 68634012471. 3
- 68634012472. 4

Question Number : 19 Question Id : 6863403151 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 :

- 68634012473. 1
- 68634012474. 2
- 68634012475. 3
- 68634012476. 4

Question Number : 19 Question Id : 6863403151 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 :

- 68634012473. 1
- 68634012474. 2
- 68634012475. 3
- 68634012476. 4

Question Number : 20 Question Id : 6863403152 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 :

- 68634012477. 1
- 68634012478. 2
- 68634012479. 3
- 68634012480. 4

Question Number : 20 Question Id : 6863403152 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 :

- 68634012477. 1
- 68634012478. 2
- 68634012479. 3
- 68634012480. 4

Question Number : 21 Question Id : 6863403153 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 :

- 68634012481. 1
- 68634012482. 2
- 68634012483. 3
- 68634012484. 4

Question Number : 21 Question Id : 6863403153 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 :

68634012481. 1
68634012482. 2
68634012483. 3
68634012484. 4

Question Number : 22 Question Id : 6863403154 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 :

68634012485. 1
68634012486. 2
68634012487. 3
68634012488. 4

Question Number : 22 Question Id : 6863403154 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 :

68634012485. 1
68634012486. 2
68634012487. 3
68634012488. 4

Question Number : 23 Question Id : 6863403155 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 :

68634012489. 1
68634012490. 2
68634012491. 3
68634012492. 4

Question Number : 23 Question Id : 6863403155 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 :

- 68634012489. 1
- 68634012490. 2
- 68634012491. 3
- 68634012492. 4

Question Number : 24 Question Id : 6863403156 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 :

- 68634012493. 1
- 68634012494. 2
- 68634012495. 3
- 68634012496. 4

Question Number : 24 Question Id : 6863403156 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 :

- 68634012493. 1
- 68634012494. 2
- 68634012495. 3
- 68634012496. 4

Question Number : 25 Question Id : 6863403157 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 :

- 68634012497. 1
- 68634012498. 2
- 68634012499. 3
- 68634012500. 4

Question Number : 25 Question Id : 6863403157 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 :

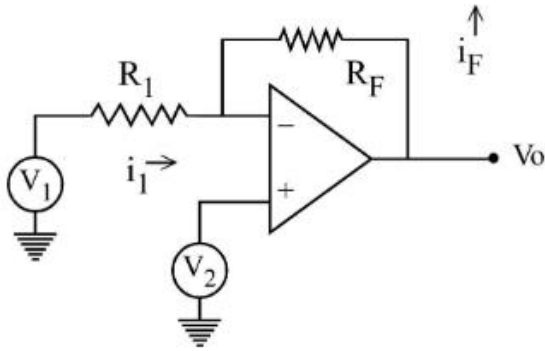
68634012497. 1
68634012498. 2
68634012499. 3
68634012500. 4

Part B: Nanoelectronics Material Sciences

Section Id :	68634064
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 :	68634096
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 26 Question Id : 6863403158 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 following circuit diagram (Non-inverting OP-AMP), output voltage is:



1. $V_0 = \frac{R_F}{R_1}(V_1 + V_2)$

2. $V_0 = \frac{R_F}{R_1}(V_2 - V_1) + V_2$

3. $V_0 = \frac{R_F}{R_1}(V_1 - V_2)$

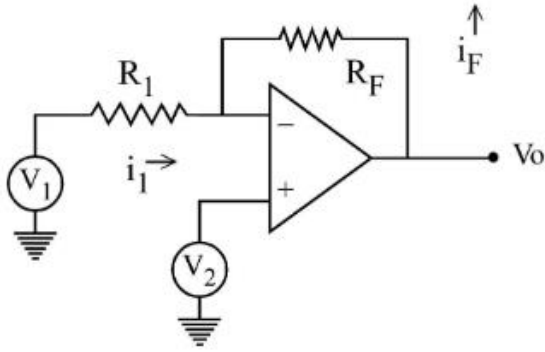
4. $V_0 = \frac{R_F}{R_F + R_1}(V_1 + V_2)$

Options :

- 68634012501. 1
- 68634012502. 2
- 68634012503. 3
- 68634012504. 4

Question Number : 26 Question Id : 6863403158 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

दिए गए परिपथ चित्र (अप्रतिलोमी OP-प्रवर्धक) के लिए निर्गम वोल्टता है :



$$1. V_0 = \frac{R_F}{R_1} (V_1 + V_2)$$

$$2. V_0 = \frac{R_F}{R_1} (V_2 - V_1) + V_2$$

$$3. V_0 = \frac{R_F}{R_1} (V_1 - V_2)$$

$$4. V_0 = \frac{R_F}{R_F + R_1} (V_1 + V_2)$$

Options :

- 68634012501. 1
- 68634012502. 2
- 68634012503. 3
- 68634012504. 4

Question Number : 27 Question Id : 6863403159 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 phase-shift oscillator consists of:

- 1. Two stages of RC circuit
- 2. One stage of LC circuit
- 3. Three stages of RC circuit
- 4. Four stage of RC circuit

Options :

- 68634012505. 1
- 68634012506. 2
- 68634012507. 3
- 68634012508. 4

**Question Number : 27 Question Id : 6863403159 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**

कला विस्थापन दोलक बना होता है :

1. RC परिपथ की दो अवस्थाओं (स्टेज) से
2. RC परिपथ की एक अवस्था (स्टेज) से
3. RC परिपथ की तीन अवस्थाओं (स्टेज) से
4. RC परिपथ की चार अवस्थाओं (स्टेज) से

Options :

- 68634012505. 1
- 68634012506. 2
- 68634012507. 3
- 68634012508. 4

**Question Number : 28 Question Id : 6863403160 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**

Negative feedback in amplifier leads to:

1. Decrease in band width.
2. Decrease in harmonic distortion
3. Increase in noise
4. Increase in harmonic distortion

Options :

- 68634012509. 1
- 68634012510. 2
- 68634012511. 3
- 68634012512. 4

**Question Number : 28 Question Id : 6863403160 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 प्रवर्धक में ऋणात्मक पुनर्भरण से :

1. बैंड की चौड़ाई कम हो जाती है
2. सनांदी विरूपण कम हो जाता है
3. रव में वृद्धि होती है
4. सनांदी विरूपण में वृद्धि होती है

Options :

68634012509. 1
68634012510. 2
68634012511. 3
68634012512. 4

Question Number : 29 Question Id : 6863403161 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

Monolithic circuit (Integrated circuits ICs) are classified as medium scale integration (MSI) Circuits when number of logic gates :

1. $10^5 N \leq 10^6$
2. $10 < N \leq 100$
3. $100 < N \leq 100,000$
4. $N > 10^6$

Options :

68634012513. 1
68634012514. 2
68634012515. 3
68634012516. 4

Question Number : 29 Question Id : 6863403161 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

एकीकृत परिपथ (समाकलित परिपथ ICs) को मध्यम पैमाना समाकलन (MSI) परिपथ से वर्गीकृत किया जाता है जब तर्क गेटों की संख्या (N) है :

1. $10^5 N \leq 10^6$
2. $10 < N \leq 100$
3. $100 < N \leq 100,000$
4. $N > 10^6$

Options :

68634012513. 1
68634012514. 2
68634012515. 3
68634012516. 4

Question Number : 30 Question Id : 6863403162 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

An ideal operational amplifier (OP-amp) would not exhibit the following electrical characteristics-

1. Infinite Input Resistance
2. Infinite Voltage Gain
3. Infinite output Resistance
4. Infinite Band width

Options :

68634012517. 1
68634012518. 2
68634012519. 3
68634012520. 4

Question Number : 30 Question Id : 6863403162 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 आदर्श सक्रियात्मक प्रवर्धक (OP-amp), निम्नलिखित वैद्युत विशेषता नहीं दिखाता-

1. अनंत निवेश प्रतिरोध
2. अनंत वोल्टता लिब्धि
3. अनंत निर्गम प्रतिरोध
4. अनंत बैंड की चौड़ाई

Options :

68634012517. 1
68634012518. 2
68634012519. 3
68634012520. 4

**Question Number : 31 Question Id : 6863403163 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 power gain of an amplifier is 'X' and its voltage gain is 'Y' then its current gain will be:

1. $\frac{X}{Y}$

2. $\frac{Y}{X}$

3. $X \cdot Y$

4. $X + Y$

Options :

68634012521. 1
68634012522. 2
68634012523. 3
68634012524. 4

**Question Number : 31 Question Id : 6863403163 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 प्रवर्धक की शक्ति लब्धि 'X' और उसकी वोल्टता लब्धि 'Y' है, तो उसकी धरा लब्धि क्या होगी ?

1. $\frac{X}{Y}$

2. $\frac{Y}{X}$

3. $X \cdot Y$

4. $X + Y$

Options :

68634012521. 1
68634012522. 2
68634012523. 3
68634012524. 4

**Question Number : 32 Question Id : 6863403164 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

NPN Transistor with normal bias:

1. Emitter junction is reverse biased
2. Emitter junction is forward biased and collector junction is reverse biased
3. Both emitter and collector junction are forward biased.
4. Both emitter and collector junction are reverse biased

Options :

- 68634012525. 1
- 68634012526. 2
- 68634012527. 3
- 68634012528. 4

Question Number : 32 Question Id : 6863403164 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 NPN ट्रांजिस्टर (सामान्य बायस के साथ) के लिए कौन सा कथन उचित है :

1. उत्सर्जक संधि पश्चदिशिक बायस होती है
2. उत्सर्जक संधि अग्रबायस होती है और संग्राही संधि पश्चदिशिक बायस होती है
3. उत्सर्जक संधि और संग्राही संधि दोनों अग्रबायस होती है
4. उत्सर्जक संधि और संग्राही संधि दोनों पश्चदिशिक बायस होती है

Options :

- 68634012525. 1
- 68634012526. 2
- 68634012527. 3
- 68634012528. 4

Question Number : 33 Question Id : 6863403165 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: One is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion (A) : The output of ideal op-amp can drive an infinite number of other devices.

Reason (R) : An ideal op-amp exhibits infinite output resistance.

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 :

- 68634012529. 1
- 68634012530. 2
- 68634012531. 3
- 68634012532. 4

Question Number : 33 Question Id : 6863403165 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

निचे दो कथन हैं : एक अभिकथन अभिकथन (A) के रूप में लिखित है तो दूसरा उसके कारण (R) के रूप में :

अभिकथन (A) : एक आदर्श op-प्रवर्धक का निर्गम, अनंत संख्या की दूसरी युक्तियों का संचालन कर सकता है ।

कारण (R) : एक आदर्श op-प्रवर्धक का निर्गम, प्रतिरोध अनंत होता है ।

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

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

Options :

- 68634012529. 1
- 68634012530. 2
- 68634012531. 3
- 68634012532. 4

Question Number : 34 Question Id : 6863403166 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: One is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion (A) : Open loop op-amp configurations are not used in linear application.

Reason (R) : Output of op-amp is either at positive or negative saturation levels when operated in open-loop configuration.

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 :

- 68634012533. 1
- 68634012534. 2
- 68634012535. 3
- 68634012536. 4

Question Number : 34 Question Id : 6863403166 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

निचे दो कथन हैं : एक अभिकथन अभिकथन (A) के रूप में लिखित है तो दूसरा उसके कारण (R) के रूप में :

अभिकथन (A) : खुला-पाश op-प्रवर्धक विन्यासों का उपयोग रैखिक अनुप्रयोगों में नहीं होता ।

कारण (R) : एक op-प्रवर्धक का निर्गम, जब उसे खुला-पाश विन्यास में प्रचलित किया जाता है, धनात्मक या ऋणात्मक सांद्रता स्तर पर होता है ।

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

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

Options :

- 68634012533. 1
- 68634012534. 2
- 68634012535. 3

68634012536. 4

Question Number : 35 Question Id : 6863403167 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

Arrange the following fabrication steps of MOSFET starting from initial level:

- A. Metal Deposition
- B. Wafer Cleaning
- C. Oxidation
- D. Doping

Choose the correct answer from the options given below:

- 1. A, B, C, D
- 2. B, C, D, A
- 3. D, B, A, C
- 4. B, D, C, A

Options :

- 68634012537. 1
- 68634012538. 2
- 68634012539. 3
- 68634012540. 4

Question Number : 35 Question Id : 6863403167 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

निचे दिए MOSFET के संविरचित पदों को प्रारमिक स्तर से व्यवस्थित कीजिए ।

- A. धातु निक्षेपण
- B. पटलिका (वेफर) सफाई
- C. आंक्सीकरण
- D. मादन

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

- 1. A, B, C, D
- 2. B, C, D, A
- 3. D, B, A, C
- 4. B, D, C, A

Options :

- 68634012537. 1
- 68634012538. 2

68634012539. 3

68634012540. 4

Question Number : 36 Question Id : 6863403168 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 : Diffusion potential across $p-n$ junction increases with increase in doping concentration.

Statement II : Contact potential of $p-n$ junction can be measured by voltmeter.

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 :

68634012541. 1

68634012542. 2

68634012543. 3

68634012544. 4

Question Number : 36 Question Id : 6863403168 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

निचे दो कथन दिए गए हैं :-

कथन I : एक $p-n$ संधि के आर पार विसरण विभव, मादन सांद्रता बढ़ाने से बढ़ता है।

कथन II : एक $p-n$ संधि के संस्पर्श विभव, वोल्मीटर से मापा जाता है।

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

1. कथन I और कथन II दोनों सत्य हैं
2. कथन I और कथन 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 :

68634012541. 1

68634012542. 2
68634012543. 3
68634012544. 4

Question Number : 37 Question Id : 6863403169 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 : Collector current of BJT increases with increase in temperature.

Statement II : Minority charge carriers in collector-base junction increase with increase in temperature.

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 :

68634012545. 1
68634012546. 2
68634012547. 3
68634012548. 4

Question Number : 37 Question Id : 6863403169 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

निचे दो कथन दिए गए हैं :-

कथन I : BJT की संग्राही धारा में तापमान बढ़ाने से वृद्धि होती है ।

कथन II : संग्राही-आधार संधि में तापमान बढ़ाने से अल्पांश आवेश वाहको में वृद्धि होती है ।

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

1. कथन I और कथन II दोनों सत्य हैं
2. कथन I और कथन 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 :

68634012545. 1

68634012546. 2

68634012547. 3

68634012548. 4

Question Number : 38 Question Id : 6863403170 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

Consequences of base-width modulation are:

- A. α and β increase
- B. Recombination current increases
- C. Collector current increases
- D. Collector current decreases

Choose the correct answer from the options given below:

1. B and D only
2. A and C only
3. A only
4. D only

Options :

68634012549. 1

68634012550. 2

68634012551. 3

68634012552. 4

Question Number : 38 Question Id : 6863403170 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

आधार-चौड़ाई मांडुलन के परिणाम है :

- A. α और β में वृद्धि
- B. पुनः संयोजित धारा में वृद्धि
- C. संग्राही धारा में वृद्धि
- D. संग्राही धारा में गिरावट

Choose the correct answer from the options given below:

1. केवल B और D
2. केवल A और C
3. केवल A
4. केवल D

Options :

68634012549. 1
68634012550. 2
68634012551. 3
68634012552. 4

**Question Number : 39 Question Id : 6863403171 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**

Transistor action in BJT represents :

- A. Efficient flow of charge carriers from emitter to collector.
- B. High input resistance between emitter and base junction.
- C. Low input resistance between emitter and base junction.
- D. Emitter-base junction be forward biased & collector-base junction be reverse biased.

Choose the correct answer from the options given below:

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

Options :

68634012553. 1
68634012554. 2
68634012555. 3
68634012556. 4

**Question Number : 39 Question Id : 6863403171 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**

BJT में ट्रांजिस्टर क्रिया दर्शाती है :

- A. आवेश वाहकों का उत्सर्जक से संग्राही तक दक्ष प्रवाह
- B. उत्सर्जक और आधार संधि के बीच उच्च निवेश प्रतिरोध
- C. संग्राही और आधार संधि के बीच निम्न निवेश प्रतिरोध
- D. उत्सर्जक-आधार संधि, अग्र दिशिक बायस है और संग्राही-आधार संधि, पश्च दिशिक बायस है ।

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :



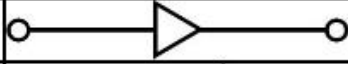
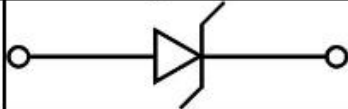
- 1. केवल B
- 2. केवल C, D
- 3. केवल A और D
- 4. केवल B और D

Options :

- 68634012553. 1
- 68634012554. 2
- 68634012555. 3
- 68634012556. 4

Question Number : 40 Question Id : 6863403172 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 (Symbol)		LIST II (Device)	
A.		I.	Light Emitting Diode
B.		II.	Photodiode
C.		III.	Zener diode
D.		IV.	Rectifier diode

Choose the correct answer from the options given below:




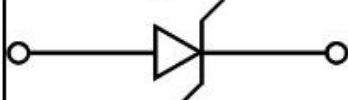
- 1. A-I, B-II, C-IV, D-III
- 2. A-III, B-I, C-II, D-IV
- 3. A-II, B-I, C-IV, D-III
- 4. A-I, B-III, C-IV, D-II

Options :

- 68634012557. 1
- 68634012558. 2
- 68634012559. 3
- 68634012560. 4

Question Number : 40 Question Id : 6863403172 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

LIST I (चिन्ह)		LIST II (युक्ति)	
A.		I.	प्रकाश उत्सर्जक डायोड
B.		II.	फोटो डायोड
C.		III.	डायोड
D.		IV.	दिष्टकारी

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634012557. 1
68634012558. 2
68634012559. 3
68634012560. 4

Question Number : 41 Question Id : 6863403173 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 voltage gain loaded diff OMP-AMP is:

1. Larger than the unloaded voltage gain.
2. Equal to the unloaded voltage gain.
3. Smaller than the unloaded voltage gain.
4. Impossible to determine

Options :

68634012561. 1
68634012562. 2
68634012563. 3
68634012564. 4

Question Number : 41 Question Id : 6863403173 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 भारित अवकल OMP-प्रवर्धक की वोल्ता लब्धि है :

1. अभारित वोल्ता लब्धि से अधिक है
2. अभारित वोल्ता लब्धि के बराबर है
3. अभारित वोल्ता लब्धि से छोटी है
4. मापना संभव नहीं है

Options :

- 68634012561. 1
- 68634012562. 2
- 68634012563. 3
- 68634012564. 4

Question Number : 42 Question Id : 6863403174 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

Logic circuit that produces high output whenever the two inputs are at opposite levels is:

1. OR Gate
2. AND Gate
3. NOT Gate
4. Ex-OR Gate

Options :

- 68634012565. 1
- 68634012566. 2
- 68634012567. 3
- 68634012568. 4

Question Number : 42 Question Id : 6863403174 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 तर्क परिपथ, जो उच्च निर्गम प्रदान करता है जब भी उसे दो विलोम स्तर के निवेश दिए जाते हैं | वह तर्क परिपथ है :

1. OR गेट
2. AND गेट
3. NOT गेट
4. Ex-OR गेट

Options :

- 68634012565. 1
- 68634012566. 2
- 68634012567. 3
- 68634012568. 4

Question Number : 43 Question Id : 6863403175 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

To form OR Gate from NOR gate number of NOR Gates required are:

1. One
2. Two
3. Three
4. Four

Options :

- 68634012569. 1
- 68634012570. 2
- 68634012571. 3
- 68634012572. 4

Question Number : 43 Question Id : 6863403175 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

NOR गेट से OR गेट बनाने के लिए आवश्यक NOR गेट की संख्या कितनी होगी ?

1. एक
2. दो
3. तीन
4. चार

Options :

- 68634012569. 1

68634012570. 2
68634012571. 3
68634012572. 4

Question Number : 44 Question Id : 6863403176 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

Full Adder has three inputs A, B and C_{in} , and two outputs Sum (S) and carry (C_{out}). The expression for Sum (S) is given by:

Where +, . & \oplus represents OR, AND, and Ex-OR operations, respectively.

1. $S = A + B + C_{in}$

2. $S = A \cdot B \cdot C_{in}$

3. $S = A \oplus (B \oplus C_{in})$

4. $S = A \cdot B + B \cdot C_{in} + A \cdot C_{in}$

Options :

68634012573. 1
68634012574. 2
68634012575. 3
68634012576. 4

Question Number : 44 Question Id : 6863403176 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

पूर्ण योजक के तीन निवेश A, B और C_{in} तथा दो निर्गम सम/योग (S) और कैरी (C_{out}) होते हैं। सम/योग (S) का व्यंजक दिया गया है :

1. $S = A + B + C_{in}$

2. $S = A \cdot B \cdot C_{in}$

3. $S = A \oplus (B \oplus C_{in})$

4. $S = A \cdot B + B \cdot C_{in} + A \cdot C_{in}$

Options :

68634012573. 1
68634012574. 2
68634012575. 3
68634012576. 4

Question Number : 45 Question Id : 6863403177 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 Universal logic gate?

1. NOT Gate
2. NOR Gate
3. Ex-OR Gate
4. OR Gate

Options :

68634012577. 1
68634012578. 2
68634012579. 3
68634012580. 4

Question Number : 45 Question Id : 6863403177 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 सार्वत्रिक तर्क गेट है ?

1. NOT गेट
2. NOR गेट
3. Ex-OR गेट
4. OR गेट

Options :

68634012577. 1
68634012578. 2
68634012579. 3
68634012580. 4

Question Number : 46 Question Id : 6863403178 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

Clocked J-K Flip-Flop (FF) is said to be in toggle mode of operation if:
(PGT = Positive Going Transition)

1. Both $J = K = 0$, FF will toggle for each PGT of the clock
2. Both $J = K = 1$, FF will toggle for each PGT of the clock
3. Both $J = 1, K = 0$, FF will toggle for each PGT of the clock
4. Both $J = 0, K = 1$, FF will toggle for each PGT of the clock

Options :

- 68634012581. 1
- 68634012582. 2
- 68634012583. 3
- 68634012584. 4

Question Number : 46 Question Id : 6863403178 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

कालबद्ध फ्लिप-फ्लॉप का टॉगल विधा में प्रचालन करना कहलाता है यदि (PGT= घनात्मक होता सक्रमण):

1. दोनों $J = K = 0$, FF काल के हर जहा के लिए टॉगल करेगा
2. दोनों $J = K = 1$, FF काल के हर PGT के लिए टॉगल करेगा
3. दोनों $J = 1, K = 0$, FF काल के हर PGT के लिए टॉगल करेगा
4. दोनों $J = 0, K = 1$, FF काल के हर PGT के लिए टॉगल करेगा

Options :

- 68634012581. 1
- 68634012582. 2
- 68634012583. 3
- 68634012584. 4

Question Number : 47 Question Id : 6863403179 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 simplified expression for $Y = A\bar{B}D + A\bar{B}\bar{D}$ is

1. $y = 1$
2. $y = A\bar{B}$
3. $y = 0$
4. $y = \bar{D}$

Options :

- 68634012585. 1
- 68634012586. 2
- 68634012587. 3
- 68634012588. 4

Question Number : 47 Question Id : 6863403179 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

$Y = \overline{A}BD + A\overline{B}\overline{D}$ के लिए सरल व्यंजक है :

1. $y = 1$
2. $y = A\overline{B}$
3. $y = 0$
4. $y = \overline{D}$

Options :

- 68634012585. 1
- 68634012586. 2
- 68634012587. 3
- 68634012588. 4

Question Number : 48 Question Id : 6863403180 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: One is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion (A) : The current through an open device is zero.

Reason (R) : Open device has infinite resistance.

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 :

- 68634012589. 1
- 68634012590. 2
- 68634012591. 3
- 68634012592. 4

Question Number : 48 Question Id : 6863403180 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

निचे दो कथन हैं : एक अभिकथन (A) के रूप में लिखित है तो दूसरा उसके कारण (R) के रूप में :

अभिकथन (A) : एक खुली युक्ति से गुजरने वाली विद्युतधारा शून्य होती है ।

कारण (R) : खुली युक्ति का प्रतिरोध अनंत होता है ।

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

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

Options :

68634012589. 1
68634012590. 2
68634012591. 3
68634012592. 4

Question Number : 49 Question Id : 6863403181 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 specifications of DAC (Digital to analog) is / are:

- A. Resolution
- B. Linearity
- C. Accuracy
- D. All of these

Choose the correct answer from the options given below:

1. A and B
2. C
3. C and A
4. D

Options :

68634012593. 1
68634012594. 2
68634012595. 3
68634012596. 4

Question Number : 49 Question Id : 6863403181 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

DAC (अंकीय से अनुरूप) के विनिर्देश है :

- A. वियोजन
- B. रेखिकता
- C. यथार्थता
- D. उपरोक्त सभी

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

- 1. A और B
- 2. C
- 3. C और A
- 4. D

Options :

- 68634012593. 1
- 68634012594. 2
- 68634012595. 3
- 68634012596. 4

Question Number : 50 Question Id : 6863403182 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.	NAND and NOR	I.	Frequency Division
B.	Counter	II.	Universal Gate
C.	Multiplexer	III.	Addressing in memory chips
D.	Decoder	IV.	Universal circuit

Choose the correct answer from the options given below:

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

Options :

- 68634012597. 1
- 68634012598. 2
- 68634012599. 3
- 68634012600. 4

Question Number : 50 Question Id : 6863403182 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.	NAND और NOR	I.	आवृत्ति विभाजन
B.	गणित्र (काउंटर)	II.	सावर्त्रिक गेट
C.	बहुसंकेतक	III.	(स्मृति) मेमोरी चिप में पताभिगमन
D.	विकोड़क	IV.	सावर्त्रिक परिपथ

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634012597. 1
68634012598. 2
68634012599. 3
68634012600. 4

Question Number : 51 Question Id : 6863403183 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 : Superposition theorem is applicable to non-linear networks and systems.

Statement II : Norton's theorem states that a complex network connected to a load can be replaced with an equivalent impedance connected in parallel with a current source.

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 :

68634012601. 1
68634012602. 2

68634012603. 3

68634012604. 4

Question Number : 51 Question Id : 6863403183 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

निचे दो कथन दिए गए हैं :-

कथन I : अध्यारोपण प्रमेय, अरैखिक परिपथ और निकाय (तंत्रों) में लागू होता है ।

कथन II : नोर्टन प्रमेय के अनुसार, एक सम्मित्र परिपथ, जो एक भार (लोड) से संयोजित है, को एक तुल्य प्रतिबाधा (जो एक धारा श्रोत से समांतर कर्म में जुडी है) से प्रतिस्थापित कर सकते है ।

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

1. कथन I और कथन II दोनों सत्य हैं
2. कथन I और कथन 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 :

68634012601. 1

68634012602. 2

68634012603. 3

68634012604. 4

Question Number : 52 Question Id : 6863403184 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 correct statements given below are:

- A. Logic gates has no storage capabilities.
- B. Flip-Flop possess memory.
- C. Flip-Flop can have only one input.
- D. Flip-Flop has two allowed operating states.
- E. Flip-Flop is also called Multiplexer.

Choose the correct answer from the options given below:

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

Options :

68634012605. 1

68634012606. 2

68634012607. 3

68634012608. 4

**Question Number : 52 Question Id : 6863403184 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

निचे दिए गए कथनों में से सही कथन चुनिए।

- A. तर्क गेट में संभारण क्षमता नहीं होती।
- B. फ्लिप-फ्लॉप में मैमोरी (स्मृति) होती है।
- C. फ्लिप-फ्लॉप का केवल एक निवेश हो सकता है।
- D. फ्लिप-फ्लॉप की दो अनुमत प्रचलित अवस्थाएं हैं।
- E. फ्लिप-फ्लॉप को बहुसंकेतक भी कहते हैं।

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

68634012605. 1

68634012606. 2

68634012607. 3

68634012608. 4

**Question Number : 53 Question Id : 6863403185 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.	$X + \bar{X} =$	I.	0
B.	$X + X =$	II.	1
C.	$X \cdot X =$	III.	X
D.	$\bar{X} + \bar{X}Y =$	IV.	\bar{X}

Where X is a Variable.

Choose the correct answer from the options given below:

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

Options :

68634012609. 1
68634012610. 2
68634012611. 3
68634012612. 4

Question Number : 53 Question Id : 6863403185 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(यहाँ X एक चर है)

सूची I		सूची II	
A.	$X + \bar{X} =$	I.	0
B.	$X + X =$	II.	1
C.	$X \cdot X =$	III.	X
D.	$\bar{X} + \bar{X}Y =$	IV.	\bar{X}

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634012609. 1
68634012610. 2
68634012611. 3
68634012612. 4

Question Number : 54 Question Id : 6863403186 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 : Astable multi-vibrator generates square waves.

Statement II : In multi-vibrator, feedback is very small, as a result transistor is always driven between cut-off and saturation stage.

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 :

- 68634012613. 1
- 68634012614. 2
- 68634012615. 3
- 68634012616. 4

Question Number : 54 Question Id : 6863403186 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

निचे दो कथन दिए गए हैं :-

कथन I : एक स्थाई बहुकंपित्र वर्ग तरंगे उत्पन्न करता है ।

कथन II : बहुकंपित्र में पुनर्भरण अति लघु होता है जिस कारण से ट्रांजिस्टर हमेशा अंतक और सांद्रता अवस्थाओं के बीच परिचालित होता है ।

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

1. कथन I और कथन II दोनों सत्य हैं
2. कथन I और कथन 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 :

- 68634012613. 1
- 68634012614. 2
- 68634012615. 3

68634012616. 4

Question Number : 55 Question Id : 6863403187 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 Vector field \vec{A} is irrotational if:

1. $\vec{\nabla} \times \vec{A} = 0$

2. $\vec{\nabla} \cdot \vec{A} = 1$

3. $\vec{\nabla} \cdot \vec{A} = 0$

4. $\vec{\nabla} \times \vec{A} = 1$

Options :

68634012617. 1

68634012618. 2

68634012619. 3

68634012620. 4

Question Number : 55 Question Id : 6863403187 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

सदिश क्षेत्र \vec{A} अधूर्णी है यदि :

1. $\vec{\nabla} \times \vec{A} = 0$

2. $\vec{\nabla} \cdot \vec{A} = 1$

3. $\vec{\nabla} \cdot \vec{A} = 0$

4. $\vec{\nabla} \times \vec{A} = 1$

Options :

68634012617. 1

68634012618. 2

68634012619. 3

68634012620. 4

Question Number : 56 Question Id : 6863403188 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 vector \vec{A} is magnetic vector potential, then the value of $\vec{\nabla} \cdot (\vec{\nabla} \times \vec{A})$ is:

1. \vec{A}
2. 1
3. 0
4. A

Options :

68634012621. 1
68634012622. 2
68634012623. 3
68634012624. 4

Question Number : 56 Question Id : 6863403188 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 सदिश \vec{A} एक चंबुकीय सदिश विभव है तो $\vec{\nabla} \cdot (\vec{\nabla} \times \vec{A})$ का मान है :

1. \vec{A}
2. 1
3. 0
4. A

Options :

68634012621. 1
68634012622. 2
68634012623. 3
68634012624. 4

Question Number : 57 Question Id : 6863403189 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 region there is Zero volume charge density but there are non zero line charge (λ) and surface charge density (σ), then which of the following is valid in that region?

1. $\nabla^2 V = \sigma$
2. $\nabla^2 V = \lambda + \sigma$
3. $\nabla^2 V = 0$
4. $\nabla^2 V = \sigma \lambda$

Options :

- 68634012625. 1
- 68634012626. 2
- 68634012627. 3
- 68634012628. 4

Question Number : 57 Question Id : 6863403189 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 क्षेत्र में आयतन आवेश घनत्व शून्य है पर वहां पर अशून्य रेखीय आवेश (λ) और पृष्ठीय आवेश घनत्व (σ) है, उस क्षेत्र के लिए, निम्नलिखित में से क्या मान्य है ?

- 1. $\nabla^2 V = \sigma$
- 2. $\nabla^2 V = \lambda + \sigma$
- 3. $\nabla^2 V = 0$
- 4. $\nabla^2 V = \sigma \lambda$

Options :

- 68634012625. 1
- 68634012626. 2
- 68634012627. 3
- 68634012628. 4

Question Number : 58 Question Id : 6863403190 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 a scalar function $\phi(x, y) = x^2 - y^2$ then value of $|\text{grad } \phi|$ at $(4, -3)$ is:

- 1. $\sqrt{7}$
- 2. 4
- 3. 5
- 4. 10

Options :

- 68634012629. 1
- 68634012630. 2
- 68634012631. 3
- 68634012632. 4

Question Number : 58 Question Id : 6863403190 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 सदिश फलन $\phi(x, y) = x^2 - y^2$ है तो $|\text{grad } \phi|$ का मान (4,-3) पर, क्या होगा ?

1. $\sqrt{7}$
2. 4
3. 5
4. 10

Options :

68634012629. 1
68634012630. 2
68634012631. 3
68634012632. 4

Question Number : 59 Question Id : 6863403191 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 ratio of electric field vector \vec{E} and magnetic field vector \vec{H} has the dimensions of:

1. Inductance
2. Resistance
3. Capacitance
4. Product of resistance and capacitance

Options :

68634012633. 1
68634012634. 2
68634012635. 3
68634012636. 4

Question Number : 59 Question Id : 6863403191 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

विद्युत् क्षेत्र सदिश \vec{E} और चुम्बकीय क्षेत्र सदिश \vec{H} के अनुपात की विभा किस राशी की होती है ?

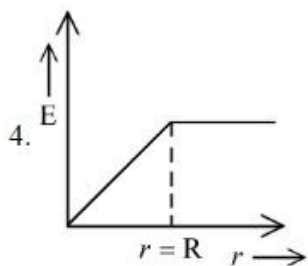
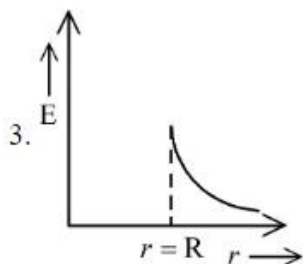
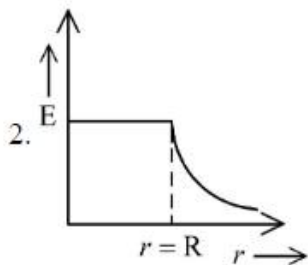
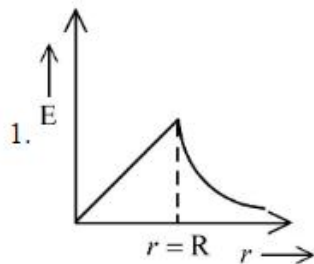
1. प्रेरकत्व की
2. प्रतिरोध की
3. धारिता की
4. प्रतिरोध और धारिता के गुणनफल की

Options :

- 68634012633. 1
- 68634012634. 2
- 68634012635. 3
- 68634012636. 4

Question Number : 60 Question Id : 6863403192 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 charge q is uniformly distributed in a spherical volume of radius R . The graph which represents the variation of electric field \bar{E} as the field point is moved away from the centre is:

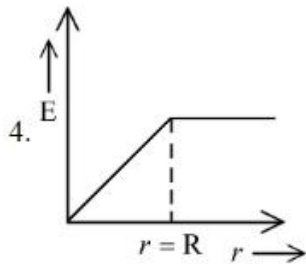
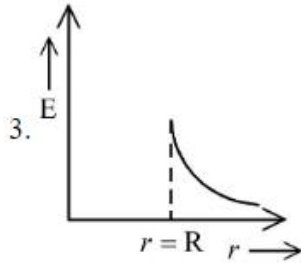
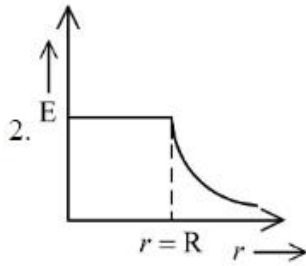
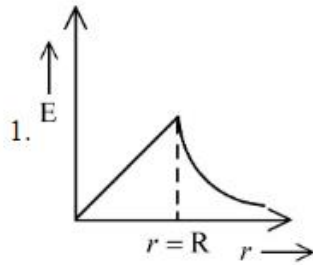


Options :

- 68634012637. 1
- 68634012638. 2
- 68634012639. 3
- 68634012640. 4

Question Number : 60 Question Id : 6863403192 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 आवेश q , एक गोलीय आयतन जिसकी त्रिज्या R है, में समान रूप से वितरित है। वह ग्राफ, जो विद्युत् क्षेत्र E में परिवर्तन को दर्शाता है जब क्षेत्र बिंदु केंद्र से दूर जाता है, को पहचानिए:-



Options :

68634012637. 1

68634012638. 2

68634012639. 3

68634012640. 4

Question Number : 61 Question Id : 6863403193 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 case of reflection and refraction of light at the dielectric interface:

1. Tangential component of \vec{D} and normal components of \vec{B} are continuous.
2. Normal component of \vec{D} and \vec{B} are continuous
3. Normal components of \vec{D} and tangential components of \vec{B} are continuous.
4. Tangential components of \vec{D} and \vec{B} are continuous.

Options :

- 68634012641. 1
- 68634012642. 2
- 68634012643. 3
- 68634012644. 4

Question Number : 61 Question Id : 6863403193 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 परावैद्युत के अंतरा पृष्ठीय पर प्रकाश के परावर्तन और अपवर्तन में :

1. \vec{D} के स्पर्श रेखिय घटक और \vec{B} के सामान्य घटक संतत है |
2. \vec{D} और \vec{B} सामान्य घटक संतत है
3. \vec{D} के सामान्य घटक और \vec{B} के स्पर्श रेखिय घटक संतत है |
4. \vec{D} और \vec{B} स्पर्श रेखिय घटक संतत है |

Options :

- 68634012641. 1
- 68634012642. 2
- 68634012643. 3
- 68634012644. 4

Question Number : 62 Question Id : 6863403194 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: One is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion (A) : The potential in a volume (v) is uniquely determined if (i) the charge density through out the region and (ii) the value of potential on all boundaries are specified.

Reason (R) : The solution of Laplace's equation in some volume (v) is uniquely determined if potential is specified on the boundary surface.

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 :

68634012645. 1
68634012646. 2
68634012647. 3
68634012648. 4

Question Number : 62 Question Id : 6863403194 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

निचे दो कथन हैं : एक अभिकथन (A) के रूप में लिखित है तो दूसरा उसके कारण (R) के रूप में :

अभिकथन (A) : एक आयतन (v) में विभव एक मात्र तरीके से मापा जाता है : यदि (i) पूरे क्षेत्र का आवेश घनत्व और (ii) सभी परिसीमाओं पर विभव का मान विनिर्दिष्ट हों ।

कारण (R) : एक आयतन (v) में लाप्लास समीकरण का हल एक मात्र तरीके से मापा जाता है यदि परिसीमा पर सतह पर विभव विनिर्दिष्ट हों ।

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

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

Options :

68634012645. 1
68634012646. 2

68634012647. 3

68634012648. 4

Question Number : 63 Question Id : 6863403195 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

Arrange the following electromagnetic radiation in increasing order of their energies:

- A. X-rays
- B. Gamma rays
- C. Micro waves
- D. UV rays
- E. visible rays

Choose the correct answer from the options given below:

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

Options :

68634012649. 1

68634012650. 2

68634012651. 3

68634012652. 4

Question Number : 63 Question Id : 6863403195 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

निचे दी गई विद्युत् चुम्बकीय विकिरणों को उनकी उर्जा के आरोही (बढ़ते हुए) क्रम में व्यवस्थित कीजिए:

- A. X-किरणें
- B. गामा किरणें
- C. सूक्ष्म तरंगें
- D. UV किरणें
- E. द्रश्य किरणें

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

- 68634012649. 1
- 68634012650. 2
- 68634012651. 3
- 68634012652. 4

Question Number : 64 Question Id : 6863403196 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 : Ampere law is valid only in the case of steady current.

Statement II : If we take source or sink of current under consideration, the situation refers to the steady current.

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 :

- 68634012653. 1
- 68634012654. 2
- 68634012655. 3
- 68634012656. 4

Question Number : 64 Question Id : 6863403196 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

निचे दो कथन दिए गए हैं :-

कथन I : एम्पियर का नियम केवल अपरिवर्ती धारा के लिए मान्य है ।

कथन II : यदि हम धारा के श्रोत या अभिगम (सिंक) पर विचार करते है तो ऐसी स्थिति अपरिवर्ती धारा को निदेशित करीत है ।

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

1. कथन I और कथन II दोनों सत्य हैं
2. कथन I और कथन 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 :

68634012653. 1
68634012654. 2
68634012655. 3
68634012656. 4

Question Number : 65 Question Id : 6863403197 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/are not true in the case of conductors:

- A. $E = 0$ inside a conductor.
- B. $p=0$ inside a conductor
- C. Any net charge resides on the surface.
- D. E is parallel to the surface, just outside the conductor.
- E. Potential may vary at different points on the conductor.

Choose the correct answer from the options given below:

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

Options :

68634012657. 1
68634012658. 2
68634012659. 3
68634012660. 4

Question Number : 65 Question Id : 6863403197 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 सा चालकों के लिए सत्य नहीं है ?

- A. चालक के अंदर $E = 0$
- B. चालक के अंदर $p=0$
- C. नेट आवेश सतह के उपर निवास करता है ।
- D. चालक के एकदम बाहर E सतह के समांतर होता है ।
- E. चालक के उपर विभिन्न बिन्दुओं पर विभव में परिवर्तन हो सकता है ।

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

- 68634012657. 1
- 68634012658. 2
- 68634012659. 3
- 68634012660. 4

Question Number : 66 Question Id : 6863403198 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.	Poisson's equation	I.	$\nabla^2 V = 0$
B.	Laplace equation	II.	$\vec{\nabla} \cdot \vec{J} = -\frac{\partial \rho}{\partial t}$
C.	Continuity equation	III.	$\vec{\nabla} \cdot \vec{E} = \frac{\rho}{\epsilon_0}$
D.	Gauss law	IV.	$\vec{\nabla} \cdot \vec{V} = -\frac{\rho}{\epsilon_0}$

Choose the correct answer from the options given below:

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

Options :

68634012661. 1
 68634012662. 2
 68634012663. 3
 68634012664. 4

Question Number : 66 Question Id : 6863403198 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.	प्वारसॉ पौइजन समीकरण	I.	$\nabla^2 V = 0$
B.	लाप्लास समीकरण	II.	$\vec{\nabla} \cdot \vec{J} = -\frac{\partial \rho}{\partial t}$
C.	सांतत्य समीकरण	III.	$\vec{\nabla} \cdot \vec{E} = \frac{\rho}{\epsilon_0}$
D.	गाउस का नियम	IV.	$\vec{\nabla} \cdot \vec{V} = -\frac{\rho}{\epsilon_0}$

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634012661. 1
 68634012662. 2
 68634012663. 3
 68634012664. 4

Question Number : 67 Question Id : 6863403199 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 register that holds the address of next instruction which is to be executed, is:

1. Stack pointer
2. Program counter
3. PSW
4. Instruction register

Options :

68634012665. 1

68634012666. 2
68634012667. 3
68634012668. 4

**Question Number : 67 Question Id : 6863403199 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**

वह रजिस्टर, जिसमें निष्पादन के लिए अगले निर्देश का पता होता है वह कहलाता है :

1. स्टेक संकेतक
2. क्रमादेश गणित (प्रोग्राम काउंटर)
3. PSW
4. निर्देश रजिस्टर

Options :

68634012665. 1
68634012666. 2
68634012667. 3
68634012668. 4

**Question Number : 68 Question Id : 6863403200 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**

LDAX B is an example of:

1. Register addressing mode
2. Indirect addressing mode
3. Direct addressing mode
4. Implicit addressing mode

Options :

68634012669. 1
68634012670. 2
68634012671. 3
68634012672. 4

**Question Number : 68 Question Id : 6863403200 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**

LDAX B किसका एक उदाहरण है ?

1. रजिस्टर पता- प्रणाली (मोड)
2. प्रत्यक्ष पता- प्रणाली
3. अप्रत्यक्ष पता- प्रणाली
4. अस्पष्ट पता- प्रणाली

Options :

- 68634012669. 1
- 68634012670. 2
- 68634012671. 3
- 68634012672. 4

Question Number : 69 Question Id : 6863403201 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

Machine language is said to be low-level language if:

1. It is machine dependent or specific to a computer
2. It is machine independent or independent of a given computer.
3. It is not understandable by human beings.
4. Programs written in this language are transferable to other machine.

Options :

- 68634012673. 1
- 68634012674. 2
- 68634012675. 3
- 68634012676. 4

Question Number : 69 Question Id : 6863403201 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

मशीन भाषा, निम्न स्तर भाषा कहलाती है यदि :

1. यह मशीन पर निर्भर करती है या एक कंप्यूटर के लिए विशिष्ट है
2. यह मशीन पर निर्भर नहीं करती है या दिए गए कंप्यूटर पर निर्भर नहीं करती
3. यह मनुष्य को समझ नहीं आती
4. इस भाषा में लिए गए प्रोग्रामों का दूसरी मशीनों में स्थान्तरण हो सकता है

Options :

68634012673. 1
68634012674. 2
68634012675. 3
68634012676. 4

**Question Number : 70 Question Id : 6863403202 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**

EEPROM stands for:

1. Electrically Erasable programmable ROM's
2. Erasable programmable ROM's
3. Electronically Erasable programmable ROM's
4. Erase Error programmable ROM's

Options :

68634012677. 1
68634012678. 2
68634012679. 3
68634012680. 4

**Question Number : 70 Question Id : 6863403202 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**

EEPROM किस के लिए प्रयोग होता है ?

1. इलेक्ट्रीकली एरेजेबल प्रोग्रामेबल ROM's
2. एरेजेबल प्रोग्रामेबल ROM's
3. इलेक्ट्रोनिकली एरेजेबल प्रोग्रामेबल ROM's
4. एरेज ऐरर प्रोग्रामेबल ROM's

Options :

68634012677. 1
68634012678. 2
68634012679. 3
68634012680. 4

**Question Number : 71 Question Id : 6863403203 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**

Program counter and the stack pointer are:

1. Control Units
2. 16-bit registers
3. Address and Data Bus
4. Flip-Flops

Options :

68634012681. 1
68634012682. 2
68634012683. 3
68634012684. 4

Question Number : 71 Question Id : 6863403203 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

क्रमादेश गणित्र (प्रोग्राम काउंटर) और स्टेक संकेतक हैं :

1. नियन्त्रण इकाईयों (कंट्रोल यूनिट)
2. 16-बिट रजिस्टर(पंजियाँ)
3. पता और डाटा बस
4. फ्लिप-फ्लॉप

Options :

68634012681. 1
68634012682. 2
68634012683. 3
68634012684. 4

Question Number : 72 Question Id : 6863403204 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 certain memory has a capacity of 4 KX 8. How many input and output lines does it has?

1. Eight input lines and Eight output lines
2. Thirty-two input lines and thirty-two output lines
3. Four input lines and four output lines
4. 4096 input lines and 4096 output lines

Options :

68634012685. 1

68634012686. 2
68634012687. 3
68634012688. 4

Question Number : 72 Question Id : 6863403204 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 निश्चित स्मृति (मेमोरी) की क्षमता 4 KX 8 । उसकी कितनी निवेश और निर्गत लाइन होंगी ?

1. आठ निवेश लाइन और आठ निर्गत लाइन
2. बत्तीस (32) निवेश लाइन और बत्तीस (32) निर्गत लाइन
3. चार निवेश लाइन और चार निर्गत लाइन
4. 4096 निवेश लाइन और 4096 निर्गत लाइन

Options :

68634012685. 1
68634012686. 2
68634012687. 3
68634012688. 4

Question Number : 73 Question Id : 6863403205 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 statement with reference to Data Bus:

1. Bidirectional lines that carry data between CPU and memory
2. Unidirectional lines that carry data between CPU to memory
3. Unidirectional lines that carry data between memory to CPU
4. Bidirectional lines that carry data between memory and I/O devices

Options :

68634012689. 1
68634012690. 2
68634012691. 3
68634012692. 4

Question Number : 73 Question Id : 6863403205 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

'डाटा बस' के संदर्भ में सही कथन चुने :

1. वे द्विदिशी लाइन जो CPU और मैमोरी (स्मृति) के बीच डाटा ले जाती हैं ।
2. वे एकदिशीय लाइन जो CPU से मैमोरी (स्मृति) तक डाटा ले जाती हैं ।
3. वे एकदिशीय लाइन जो मैमोरी (स्मृति) से CPU तक डाटा ले जाती हैं ।
4. वे द्विदिशी लाइन जो मैमोरी (स्मृति) और I/O युक्तियों के बीच डाटा ले जाती हैं ।

Options :

- 68634012689. 1
- 68634012690. 2
- 68634012691. 3
- 68634012692. 4

Question Number : 74 Question Id : 6863403206 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: One is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion (A) : The number of memory cycles required to execute LDA 4000H instruction in 8085 microprocessor is 4.

Reason (R) : Memory cycle defines number of times accessing the memory.

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 but (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 :

- 68634012693. 1
- 68634012694. 2
- 68634012695. 3
- 68634012696. 4

Question Number : 74 Question Id : 6863403206 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 हैं : एक अभिकथन (A) के रूप में लिखित है तो दूसरा उसके कारण (R) के रूप में :

अभिकथन (A) : 8085 माइक्रोप्रोसेसर में, LDA 4000H निर्देश का निष्पादन करने के लिए आवश्यक मैमोरी (स्मृति) चर्को की संख्या 4 है ।

कारण (R) : मैमोरी (स्मृति) चक्र परिभाषित करता है, मैमोरी (स्मृति) अभिगमन करने की संख्या ।

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

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

Options :

- 68634012693. 1
- 68634012694. 2
- 68634012695. 3
- 68634012696. 4

Question Number : 75 Question Id : 6863403207 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

Arrange the following 8085 hardware interrupts in increasing order of priority.

- A. TRAP
- B. RST 6.5
- C. RST 7.5
- D. INTR
- E. RST 5.5

Choose the correct answer from the options given below:

1. A, C, B, E, D
2. C, B, E, A, D
3. C, B, E, D, A
4. D, E, B, C, A

Options :

- 68634012697. 1
- 68634012698. 2
- 68634012699. 3
- 68634012700. 4

Question Number : 75 Question Id : 6863403207 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 8085 हार्डवेयर अंतरायन को अग्रता (प्राथमिकता) के आरोही क्रम में व्यवस्थित कीजिए :

- A. TRAP
- B. RST 6.5
- C. RST 7.5
- D. INTR
- E. RST 5.5

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

- 68634012697. 1
- 68634012698. 2
- 68634012699. 3
- 68634012700. 4

Question Number : 76 Question Id : 6863403208 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 correct sequence of operation of microprocessor is:

- A. Memory read
- B. I/O read
- C. Opcode fetch
- D. I/O write
- E. Memory write

Choose the correct answer from the options given below:

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

Options :

- 68634012701. 1
- 68634012702. 2
- 68634012703. 3

68634012704. 4

Question Number : 76 Question Id : 6863403208 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

माइक्रोप्रोसेसर के प्रचालन का उचित क्रम है :

- A. मैमोरी (स्मृति) रेड (पढना)
- B. I/O रेड (पढना)
- C. ओपकौड़ फैच
- D. I/O राइट (लिखना)
- E. मैमोरी (स्मृति) राइट (लिखना)

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

- 68634012701. 1
- 68634012702. 2
- 68634012703. 3
- 68634012704. 4

Question Number : 77 Question Id : 6863403209 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 : 8085 microprocessor has 16-bit of address lines and 8-bit of data lines.

Statement II : None of the flags will be affected after the execution of INX H instruction. In the light of the above statements, choose the most appropriate answer from the options given below:

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 :

- 68634012705. 1
- 68634012706. 2

68634012707. 3

68634012708. 4

Question Number : 77 Question Id : 6863403209 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 :-

कथन I : 8085 माइक्रोप्रोसेसर में, 16-बिट की एड्रेस (पता) लाइन और 8-बिट की डाटा लाइन होती है ।

कथन II : INX H निर्देश के निष्पादन के बाद, कोई भी फ्लैग प्रभावित नहीं होता है ।

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

1. कथन I और कथन II दोनों सत्य हैं
2. कथन I और कथन 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 :

68634012705. 1

68634012706. 2

68634012707. 3

68634012708. 4

Question Number : 78 Question Id : 6863403210 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/are hardware interrupts:

- A. RST 4,5
- B. RST 7
- C. RST 6
- D. INTR
- E. RST 5

Choose the correct answer from the options given below:

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

Options :

68634012709. 1

68634012710. 2

68634012711. 3

68634012712. 4

**Question Number : 78 Question Id : 6863403210 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 से हार्डवेयर अंतरायन हैं ?

- A. RST 4.5
- B. RST 7
- C. RST 6
- D. INTR
- E. RST 5

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

68634012709. 1

68634012710. 2

68634012711. 3

68634012712. 4

**Question Number : 79 Question Id : 6863403211 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.	RWM (Read/Write memory)	I.	Stored data will not permanently stored
B.	Dynamic memory device	II.	A memory that can be read or written with equal ease
C.	Static memory device	III.	Once electric power is switch off, All Stored information in memory will be lost
D.	Volatile memory device	IV.	Stored data will remain permanently stored

Choose the correct answer from the options given below:

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

Options :

- 68634012713. 1
- 68634012714. 2
- 68634012715. 3
- 68634012716. 4

Question Number : 79 Question Id : 6863403211 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.	RWM (रेड/राइट मैमोरी)	I.	संग्रहित डाटा स्थाई रूप से संग्रहित नहीं होता
B.	गतिक मैमोरी युक्ति	II.	एक मैमोरी जो बराबर आसानी से पढ़ी या लिखी जा सकती है
C.	स्थैतिक मैमोरी युक्ति	III.	यदि विद्युत् धारा बंद हो जाती है तो मैमोरी में संग्रहित सभी सन्देश खो जाते हैं
D.	वोलाटाईल (वाष्पशील) मैमोरी युक्ति	IV.	संग्रहित डाटा हमेशा स्थाई रूप से संग्रहित रहता है

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634012713. 1
68634012714. 2
68634012715. 3
68634012716. 4

Question Number : 80 Question Id : 6863403212 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

Scanning tunneling microscopy (STM) is based on the quantum mechanical tunneling. The probability of tunneling of an electron across a gap L is proportional to:

1. e^L
2. e^{-L}
3. $\frac{1}{L}$
4. $e^{-\frac{1}{L}}$

Options :

68634012717. 1
68634012718. 2
68634012719. 3
68634012720. 4

Question Number : 80 Question Id : 6863403212 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

क्रमवीक्षण सुरंगन सूक्ष्मदर्शीता (STM), क्वांटम यांत्रिकीय सुरंगन आधिरित है। एक इलेक्ट्रान के सुरंगन की प्रायिकता, एक विदर L के आर-पार किस प्रकार निर्भर करती है ?

1. e^L
2. e^{-L}
3. $\frac{1}{L}$
4. $e^{-\frac{1}{L}}$

Options :

- 68634012717. 1
- 68634012718. 2
- 68634012719. 3
- 68634012720. 4

Question Number : 81 Question Id : 6863403213 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

Single electron transistor works on:

1. Coulomb's blockade effect
2. Kondo effect
3. Handau's effect
4. Kastner effect

Options :

- 68634012721. 1
- 68634012722. 2
- 68634012723. 3
- 68634012724. 4

Question Number : 81 Question Id : 6863403213 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

एकल इलेक्ट्रान ट्रांजिस्टर किस पर कार्य करता है ?

1. कूलॉम (ब्लाकेड) खंडक प्रभाव
2. कौंडो प्रभाव
3. लैंडाऊ प्रभाव
4. कास्टरनर प्रभाव

Options :

68634012721. 1
68634012722. 2
68634012723. 3
68634012724. 4

Question Number : 82 Question Id : 6863403214 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 lithography that offers highest resolution patterning is

1. UV lithography
2. Ion beam lithography
3. X-ray lithography
4. Electron beam lithography

Options :

68634012725. 1
68634012726. 2
68634012727. 3
68634012728. 4

Question Number : 82 Question Id : 6863403214 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

अश्म (लियो) मुद्रण जो उच्चतम वियोजन प्रतोरुप्ता अपर्ण करता है वह है :

1. UV अश्म मुद्रण
2. आयन किरण पुंज अश्म मुद्रण
3. X-किरण अश्म मुद्रण
4. इलेक्ट्रान किरण पुंज अश्म मुद्रण

Options :

68634012725. 1
68634012726. 2
68634012727. 3
68634012728. 4

**Question Number : 83 Question Id : 6863403215 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**

Nano-indentation is used for the analysis of:

1. Thermal Properties of nanomaterials
2. Optical Properties of nanomaterials
3. Magnetic Properties of nanomaterials
4. Mechanical Properties of nanomaterials

Options :

68634012729. 1
68634012730. 2
68634012731. 3
68634012732. 4

**Question Number : 83 Question Id : 6863403215 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**

नैनो आइडेन्टेशन किस के विशलेषण के लिए प्रयोग होता है ?

1. नैनो पदार्थों की तापीय विशेषताएँ (गुण-धर्म)
2. नैनो पदार्थों की प्रकाशीय विशेषताएँ
3. नैनो पदार्थों की चुम्बकीय विशेषताएँ
4. नैनो पदार्थों की यांत्रिक विशेषताएँ

Options :

68634012729. 1
68634012730. 2
68634012731. 3
68634012732. 4

**Question Number : 84 Question Id : 6863403216 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 nano scale synthesis process does not lie in the category of bottom-up approach?

1. Physical vapour deposition
2. Plasma enhanced CVD
3. High pressure torsion
4. Chemical self assembly

Options :

- 68634012733. 1
- 68634012734. 2
- 68634012735. 3
- 68634012736. 4

Question Number : 84 Question Id : 6863403216 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 सा नैनोस्केल संश्लेषण प्रक्रम, तली अधस्तल उपागम की श्रेणी में नहीं आता ?

1. भौतिक वाषय निक्षेपण
2. प्लाज्मा अनहेस्ट (CVD)
3. उच्च दाब विमोटन (ऐंठन)
4. रासायनिक स्वः संकलन

Options :

- 68634012733. 1
- 68634012734. 2
- 68634012735. 3
- 68634012736. 4

Question Number : 85 Question Id : 6863403217 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 ballistic regime of heat transport, the heat flux is proportional to:

1. Square of temperature
2. First power of temperature
3. Third power of temperature
4. fourth power of temperature

Options :

- 68634012737. 1

68634012738. 2
68634012739. 3
68634012740. 4

**Question Number : 85 Question Id : 6863403217 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**

उष्मा स्थानान्तरण की प्राक्षेपिक प्रणाली (व्यवस्था) में, उष्माविभाव निर्भर करता है :

1. तापमान के वर्ग पर
2. तापमान की प्रथम धात
3. तापमान की त्रितीय धात
4. तापमान की चतुर्थीय धात

Options :

68634012737. 1
68634012738. 2
68634012739. 3
68634012740. 4

**Question Number : 86 Question Id : 6863403218 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**

Grant magnetic resistance phenomenons refers to:

1. Decrease in electrical resistance when materials are exposed to magnetic field.
2. Increase in electrical resistance when materials are exposed to magnetic field.
3. Increase in thermal resistance when materials are exposed to magnetic field.
4. Decrease in thermal resistance when materials are exposed to magnetic field.

Options :

68634012741. 1
68634012742. 2
68634012743. 3
68634012744. 4

**Question Number : 86 Question Id : 6863403218 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**

बृहत चुम्बकीय प्रतिरोध परिघटना किस के संदर्भ में है ?

1. जब पदार्थों को चुम्बकीय क्षेत्र से अनावरित किया जाता है तो उनके विद्युत् प्रतिरोध में कमी होती है।
2. जब पदार्थों को चुम्बकीय क्षेत्र से अनावरित किया जाता है तो उनके विद्युत् प्रतिरोध में वृद्धि होती है।
3. जब पदार्थों को चुम्बकीय क्षेत्र से अनावरित किया जाता है तो उनके तापीय प्रतिरोध में वृद्धि होती है।
4. जब पदार्थों को चुम्बकीय क्षेत्र से अनावरित किया जाता है तो उनके तापीय प्रतिरोध में कमी होती है।

Options :

68634012741. 1
68634012742. 2
68634012743. 3
68634012744. 4

Question Number : 87 Question Id : 6863403219 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: One is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion (A) : Photonic crystals allow or disallow the propagation of certain wavelengths depending upon their photonic band gaps.

Reason (R) : Photonic crystals are composed of periodic dielectric, metalodielectric or even superconductor nanostructures that affect the electron magnetic wave propagation in the same way that the periodic potential in semiconductors affects the propagation of electrons.

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 :

68634012745. 1
68634012746. 2
68634012747. 3
68634012748. 4

Question Number : 87 Question Id : 6863403219 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 हैं : एक अभिकथन (A) के रूप में लिखित है तो दूसरा उसके कारण (R) के रूप में :

अभिकथन (A) : फोटोनी क्रिस्टल कुछ तरंगदैर्घ्यों को संचरण के लिए अनुमति देता है या नहीं देता है यह उनके फोटोनी बैंड अन्तराल पर निर्भर करता है ।

कारण (R) : फोटोनी क्रिस्टल, आवर्ती परावैद्युत, धातु परावैद्युत या अतिचालक नैनो संरचना के बने होते हैं, जो विद्युत् चुम्बकीय तरंग संचरण को उसी तरह प्रभावित करते हैं जैसे आवर्ती विभव, अर्धचालकों में इलेक्ट्रान के संचरण को करते हैं।

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

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

Options :

68634012745. 1
68634012746. 2
68634012747. 3
68634012748. 4

Question Number : 88 Question Id : 6863403220 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 correct sequence of steps of chemical Vapour Deposition (CVD) process in:

- A. Heterogeneous surface reaction catalyzed by the surface.
- B. Nucleation and growth of the film.
- C. Adsorption of the species on the surface.
- D. Transport of reacting gaseous species to the surface
- E. Surface diffusion of the species to the growth sites.

Choose the correct answer from the options given below:

1. D, C, A, E, B
2. A, C, D, E, B
3. B, A, D, E, C
4. C, A, D, E, B

Options :

68634012749. 1
68634012750. 2
68634012751. 3
68634012752. 4

Question Number : 88 Question Id : 6863403220 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

रासायनिक वाष्प निक्षेपण प्रक्रम के उचित क्रम क्या है ?

- A. सतह द्वारा उत्प्रेरित विषमांगी पृष्ठीय अभिक्रिया
- B. नाभिकन और फिल्म का विकास
- C. सतह पर प्रजातियों का अधिशोषण
- D. अभिक्रिया शील गैसिय प्रजातियों का सतह पर परिवहन
- E. परिजातियों का विकास स्थलों पर सतही विसरण

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

- 68634012749. 1
- 68634012750. 2
- 68634012751. 3
- 68634012752. 4

Question Number : 89 Question Id : 6863403221 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 : Spin value has a layered structure of thin films of magnetic materials which leads to the variation of electrical resistance which change in the direction of applied magnetic field.

Statement II : The electrical resistance of a spin device is highest when the free layer and the pinned layer magnetization vectors are aligned and decreases when the free layer magnetization vectors rotates anti parallel to the pinned layer magnetization vector.

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 :

- 68634012753. 1

68634012754. 2
68634012755. 3
68634012756. 4

**Question Number : 89 Question Id : 6863403221 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

निचे दो कथन दिए गए हैं :-

कथन I: प्रचक्रण मान की अपने चुम्बकीय पदार्थों की फिल्म की पारती संरचना होती है जिसके कारण विद्युत् प्रतिरोध में परिवर्तन होता है जो लग रहे चुम्बकीय क्षेत्र की दिशा में परिवर्तन उत्पन्न करता है।

कथन II: एक प्रचक्रण युक्ति का, विद्युत् प्रतिरोध अधिकतम होता है जब मुक्त परत और पिन की गई परत के चुम्बकीय सदिश समरेखित होते हैं और यह कम हो जाता है जब मुक्त परत चुम्बकीय सदिश, पिन की गई, परत के चुम्बकीय सदिश के असामानान्तर घूर्णन करता है।

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

1. कथन I और कथन II दोनों सत्य हैं
2. कथन I और कथन 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 :

68634012753. 1
68634012754. 2
68634012755. 3
68634012756. 4

**Question Number : 90 Question Id : 6863403222 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 aspects of crystallites information which can be investigated being Scanning Electron Microscopy (SEM) are:

- A. Topography
- B. Morphology
- C. Composition
- D. Crystallographic information
- E. Mechanical properties

Choose the correct answer from the options given below:

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

Options :

- 68634012757. 1
- 68634012758. 2
- 68634012759. 3
- 68634012760. 4

Question Number : 90 Question Id : 6863403222 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

क्रिस्टल की सूचना के निम्नलिखित में से कौन से पक्षों की जाँच क्रम वीक्षण इलेक्ट्रॉन सूक्ष्मदर्शी के प्रयोग से होती है।

- A. स्थलाकृति
- B. आकृतिविज्ञान
- C. संघटन
- D. क्रिस्टलीय सूचना
- E. यांत्रिक विशेषताएं

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

- 68634012757. 1
- 68634012758. 2
- 68634012759. 3
- 68634012760. 4

Question Number : 91 Question Id : 6863403223 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.	X-ray Diffraction	I.	Band gap
B.	Atomic Force Microscopy	II.	Functional groups
C.	UV-Visible Spectroscopy	III.	Crystal Structure
D.	Fourier - Transform Infrared Spectroscopy	IV.	Morphology

Choose the correct answer from the options given below:

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

Options :

68634012761. 1
 68634012762. 2
 68634012763. 3
 68634012764. 4

Question Number : 91 Question Id : 6863403223 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.	X-किरण विवर्तन	I.	बैंड अन्तराल
B.	परमाणु बल सूक्ष्मदर्शीकी	II.	प्रकायात्क समूह
C.	UV- दृश्य स्पेक्ट्रमिकि	III.	क्रिस्टल संरचना
D.	फोरियर रूपांतर अवरक्त स्पेक्ट्रमिकि	IV.	आकृति विज्ञान

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

- 68634012761. 1
- 68634012762. 2
- 68634012763. 3
- 68634012764. 4

Question Number : 92 Question Id : 6863403224 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

Potentrometric sensor is a type of:

- 1. Physical sensor
- 2. Chemical sensor
- 3. Neuromorphic sensor
- 4. Proximity sensor

Options :

- 68634012765. 1
- 68634012766. 2
- 68634012767. 3
- 68634012768. 4

Question Number : 92 Question Id : 6863403224 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

विभवमापीय संवेदक किस का प्रारूप है ?

- 1. भौतिक संवेदक
- 2. रासायनिक संवेदक
- 3. तांत्रिका आकृतिक संवेदक
- 4. सामीप्य संवेदक

Options :

- 68634012765. 1
- 68634012766. 2
- 68634012767. 3
- 68634012768. 4

Question Number : 93 Question Id : 6863403225 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 electrochemical cell, in which electron reaction occurs :

1. Counter electrode
2. Working electrode
3. Reference electrode
4. Auxiliary electrode

Options :

- 68634012769. 1
- 68634012770. 2
- 68634012771. 3
- 68634012772. 4

Question Number : 93 Question Id : 6863403225 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

विद्युत् रासायनिक सेल में अभिक्रिया किस इलेक्ट्रोड पर होती है :

1. काउंटर (प्रति) इलेक्ट्रोड
2. कार्यशील इलेक्ट्रोड
3. संदर्भ इलेक्ट्रोड
4. कक्षीय इलेक्ट्रोड

Options :

- 68634012769. 1
- 68634012770. 2
- 68634012771. 3
- 68634012772. 4

Question Number : 94 Question Id : 6863403226 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 device that converts one form of energy into another:

1. Decoder
2. Encoder
3. Transducer
4. Multiplexer

Options :

- 68634012773. 1

68634012774. 2
68634012775. 3
68634012776. 4

**Question Number : 94 Question Id : 6863403226 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**

वह युक्ति जो उर्जा के एक रूप को दुसरे में बदलती है :

1. डीकोडर
2. ई कोडर
3. ट्रान्सड्यूसर
4. बहुसंकेतक

Options :

68634012773. 1
68634012774. 2
68634012775. 3
68634012776. 4

**Question Number : 95 Question Id : 6863403227 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**

Magnetostructure materials are special type of actuator which:

1. Expand or shrink on the application of magnetic field
2. Change their temperature on the application of magnetic field
3. Change their crystal structure on the application of magnetic field
4. Change their colour on the application of magnetic field

Options :

68634012777. 1
68634012778. 2
68634012779. 3
68634012780. 4

**Question Number : 95 Question Id : 6863403227 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**

चुम्बकीय संरचणिय पदार्थ एक विशेष प्रकार के प्रवर्तक हैं जो:

1. चुम्बकीय क्षेत्र लगाने पर फैलते या सिकुड़ते हैं
2. चुम्बकीय क्षेत्र लगाने पर उनके तापमान में परिवर्तन होता है
3. चुम्बकीय क्षेत्र लगाने पर उनकी क्रिस्टलीय संरचना में परिवर्तन होता है
4. चुम्बकीय क्षेत्र लगाने पर उनके रंगों में परिवर्तन होता है।

Options :

- 68634012777. 1
- 68634012778. 2
- 68634012779. 3
- 68634012780. 4

Question Number : 96 Question Id : 6863403228 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 sensor terminology 'sensitivity' is defined as:

1. Ratio of change in input signal to the change in output signal.
2. Ratio of change in output signal to the change in input signal.
3. Product of change in input signal and change in output signal.
4. Sum of change in input signal and change in output signal.

Options :

- 68634012781. 1
- 68634012782. 2
- 68634012783. 3
- 68634012784. 4

Question Number : 96 Question Id : 6863403228 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

संवेदक शब्दावली में सुग्रहित को परिभाषित किया जाता है :

1. निवेश संकेत में परिवर्तन से निर्गत संकेत में परिवर्तन के अनुपात से
2. निर्गत संकेत में परिवर्तन से निवेश संकेत में परिवर्तन के अनुपात से
3. निर्गम संकेत में परिवर्तन से निर्गत संकेत में परिवर्तन के गुणनफल से
4. निवेश संकेत में परिवर्तन और निर्गत संकेत में परिवर्तन के योग से।

Options :

68634012781. 1
68634012782. 2
68634012783. 3
68634012784. 4

**Question Number : 97 Question Id : 6863403229 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 measures of sensor's ability to produce an output indicative of changes in input parameters independent of increase or decrease of input is called:

1. Repeatability
2. Selectivity
3. Hysteresis
4. Sensitivity

Options :

68634012785. 1
68634012786. 2
68634012787. 3
68634012788. 4

**Question Number : 97 Question Id : 6863403229 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**

निवेश प्राचल (जो निवेश के बढ़ने या घटने से स्वतंत्र हो), के परिवर्तन से निर्गत संकेतक को उत्पन्न करने की संवेदक की क्षमता के मापन को क्या कहते हैं ?

1. पुनरावर्तनियता
2. चयनात्मकता (सलेक्टिविटी)
3. शैथिल्य (हिस्टेरिसिस)
4. संवेदी

Options :

68634012785. 1
68634012786. 2
68634012787. 3
68634012788. 4

**Question Number : 98 Question Id : 6863403230 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**

Arrange the typical steps of surface Micro machining in order:

- A. Deposition of a structured layer
- B. Deposition of a sacrificed layer
- C. Substrate preparation
- D. Shape definition by patterning and etching of the structured layer followed by release of suspended structure.
- E. Creation of a hole by patterning and etching of the sacrificed layer.

Choose the correct answer from the options given below:

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

Options :

- 68634012789. 1
- 68634012790. 2
- 68634012791. 3
- 68634012792. 4

Question Number : 98 Question Id : 6863403230 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

सतह के प्रारूपी चरणों को व्यवस्थित कीजिए :

- A. संरचनात्मक परत का जमाव
- B. सैक्रीफिशियल परत का जमाव
- C. क्रियाधार तैयारी
- D. संरचनात्मक के पैटेर्निंग व एचिंग द्वारा निलंबित संरचना का मोचन द्वारा आकृति निर्धारण
- E. पैटेर्निंग व एचिंग द्वारा (बलिदानित परत के) छिद्रका निर्माण

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

- 68634012789. 1
- 68634012790. 2
- 68634012791. 3
- 68634012792. 4

Question Number : 99 Question Id : 6863403231 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 not chemical sensor.

- A. Chemiresistor
- B. Non disperssive infra red sensor
- C. Hall probe sensor
- D. Hygrometer
- E. Holographic sensor

Choose the correct answer from the options given below:

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

Options :

- 68634012793. 1
- 68634012794. 2
- 68634012795. 3
- 68634012796. 4

Question Number : 99 Question Id : 6863403231 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 से रासायनिक संवेदक नहीं है।

- A. रसोप्रतिरोधक
- B. अक्षेपणी अवरक्त संवेदक
- C. हाल परीक्षित्र संवेदक
- D. हाइग्रोमीटर (आद्रतामापी) संवेदक
- E. होलीग्राफिक संवेदक

निचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिये :

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

Options :

- 68634012793. 1

68634012794. 2
68634012795. 3
68634012796. 4

Question Number : 100 Question Id : 6863403232 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.	Algorithm	I.	Ratio of change in output to change in input.
B.	Sensitivity	II.	Ability to maintain performance over time.
C.	Zero	III.	Mathematical steps applied to input variable for desired output.
D.	Stability	IV.	Minimum value of output signal.

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

Options :

68634012797. 1
68634012798. 2
68634012799. 3
68634012800. 4

Question Number : 100 Question Id : 6863403232 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.	एल्गोरिदम	I.	निर्गत का निवेश में परिवर्तन दर
B.	सर्वेदकता	II.	ओवर टाइम पर्फॉमेंस को बनाये रखने की क्षमता
C.	शून्य	III.	गणितीय चरण निवेश पर लगाये गए इच्छित निर्गत के लिए
D.	स्थिरता	IV.	निर्गत संकेतक का न्यूनतम मान

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए : पर्फॉमेंस

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

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

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

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

Options :

68634012797. 1

68634012798. 2

68634012799. 3

68634012800. 4