

National Testing Agency

Question Paper Name : Electrical Power and Energy Engineering Eng 25th June 2023 Shift 2
Subject Name : Electrical Power and Energy Engineering Eng
Creation Date : 2023-06-25 18:05:08
Duration : 120
Total Marks : 400
Display Marks: Yes

Electrical Power and Energy Engineering

Group Number : 1
Group Id : 686340382
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 : 686340759
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 : 6863401267
Question Shuffling Allowed : No
Is Section Default? : null

Question Id : 68634038587 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 passage carefully and answer the questions that follows:

The reformer must know that what moves people is the authentic life, not mere writing. The newspapers and journals that Lokmanya Tilak and Gandhiji ran the books they wrote, sold little, but had enormous effect. Their writing was known to reflect and be just an extension of their exemplary lives. It was the authenticity of their lives which lent weight to their message, to their example. All knew that their lives were an integral whole - they were not moral in public life and lax in private, nor vice versa. They were not full of pious thoughts and sacred resolutions within the walls of a temple and cheats outside.

A writer who is merely entertaining his readers, even one who is merely informing them, can do what he wants with the rest of his life. But the writer who sets out to use his pen to reform public life cannot afford such dualities.

Here is the testimony of one great man – Gandhiji – about the influence of another, Lokmanya Tilak: “I believe that an editor who has anything worth saying and who commands a clientele cannot be easily hushed. He delivers his finished message as soon as he is put under duress. The Lokmanya Spoke more eloquently from the Mandalay fortress than through the columns of the printed *Kesari*. His influence was multiplied thousandfold by his imprisonment and his speech, and his pen had acquired much greater power after he was discharged than before his imprisonment. By his death we have been editing his paper without pen and speech through the sacred resolution of the people to realise his life’s dream. He could possibly have done more if he were today in the flesh preaching his view. Critics like me would perhaps be still finding fault in this expression of his or that. Today his message rules millions of hearts which are determined to raise a permanent living memorial by the fulfilment of his ambition in their lives.”

Sub questions

Question Number : 1 Question Id : 68634038588 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Lokmanya spoke more eloquently from the Mandalay fortress than through the columns of the printed *Kesari*.

What is the meaning of ‘eloquently’ in the above sentence?

1. announce solemnly
2. Convert in the intelligible language
3. Language understood by the uneducated mass
4. Clearly expressive

Options :

- 686340152401. 1
- 686340152402. 2
- 686340152403. 3
- 686340152404. 4

Question Number : 2 Question Id : 68634038589 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Which of the following is the result of Lokmanya Tilak's exemplary life ?

1. People resolved to fulfil his life's dreams
2. The newspapers edited by him did not incur money loss
3. The books written by him were useful
4. Critics still find fault with his views

Options :

- 686340152405. 1
- 686340152406. 2
- 686340152407. 3
- 686340152408. 4

Question Number : 3 Question Id : 68634038590 Question Type : MCQ Option Shuffling : No 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 context of the passage, which of the following statement about Lokmanya Tilak and Mahatma Gandhi is true?

1. Their influence on people was negligible
2. Very few people used to read the newspapers edited by them
3. They were moral in private life but lax in public life
4. They were allowed to edit their newspapers even from inside the jail

Options :

- 686340152409. 1
- 686340152410. 2
- 686340152411. 3
- 686340152412. 4

Question Number : 4 Question Id : 68634038591 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Which of the following is the general tendency of critics, according to the passage?

1. To find fault with one or the other expression of a writer
2. To praise only those writers whom they like
3. To suggest new ideas to the public
4. To justify their criticism

Options :

- 686340152413. 1
- 686340152414. 2

686340152415. 3

686340152416. 4

Question Number : 5 Question Id : 68634038592 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Lokmanya Tilak's messages were most effective:

1. when he delivered through his editorials
2. before his imprisonment
3. when he became an informer
4. when he delivered speeches

Options :

686340152417. 1

686340152418. 2

686340152419. 3

686340152420. 4

Question Id : 68634038587 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

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Sub questions

Question Number : 1 Question Id : 68634038588 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

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What is the meaning of 'eloquently' in the above sentence?

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3. Language understood by the uneducated mass
4. Clearly expressive

Options :

- 686340152401. 1
- 686340152402. 2
- 686340152403. 3
- 686340152404. 4

Question Number : 2 Question Id : 68634038589 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

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1. People resolved to fulfil his life's dreams
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3. The books written by him were useful
4. Critics still find fault with his views

Options :

- 686340152405. 1
- 686340152406. 2
- 686340152407. 3
- 686340152408. 4

Question Number : 3 Question Id : 68634038590 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

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2. Very few people used to read the newspapers edited by them
3. They were moral in private life but lax in public life
4. They were allowed to edit their newspapers even from inside the jail

Options :

- 686340152409. 1
- 686340152410. 2
- 686340152411. 3
- 686340152412. 4

Question Number : 4 Question Id : 68634038591 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Which of the following is the general tendency of critics, according to the passage?

1. To find fault with one or the other expression of a writer
2. To praise only those writers whom they like
3. To suggest new ideas to the public
4. To justify their criticism

Options :

- 686340152413. 1
- 686340152414. 2
- 686340152415. 3
- 686340152416. 4

Question Number : 5 Question Id : 68634038592 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Lokmanya Tilak's messages were most effective:

1. when he delivered through his editorials
2. before his imprisonment
3. when he became an informer
4. when he delivered speeches

Options :

- 686340152417. 1

686340152418. 2

686340152419. 3

686340152420. 4

Sub-Section Number :

2

Sub-Section Id :

6863401268

Question Shuffling Allowed :

Yes

Is Section Default? :

null

Question Number : 6 Question Id : 68634038593 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Fill in the blanks with appropriate prepositions from the options given below:

Rennet casein is produced _____ skin milk by coagulation _____ rennet. Soluble calcium ions are required _____ this reaction. Sufficient quantities _____ calcium is already present in milk.

1. from, with, for, of

2. from, with, of, for

3. from, in, with, for

4. from, of, for, with

Options :

686340152421. 1

686340152422. 2

686340152423. 3

686340152424. 4

Question Number : 6 Question Id : 68634038593 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Fill in the blanks with appropriate prepositions from the options given below:

Rennet casein is produced _____ skin milk by coagulation _____ rennet. Soluble calcium ions are required _____ this reaction. Sufficient quantities _____ calcium is already present in milk.

1. from, with, for, of

2. from, with, of, for

3. from, in, with, for

4. from, of, for, with

Options :

686340152421. 1

686340152422. 2

686340152423. 3

686340152424. 4

Question Number : 7 Question Id : 68634038594 Question Type : MCQ Option Shuffling : No 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.	Plagiarize	I.	Disrespectful
B.	Dubious	II.	Gift
C.	Contemptuous	III.	Uncertain
D.	Hamper	IV.	Copy

Choose the correct answer from the options given below:

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

Options :

- 686340152425. 1
- 686340152426. 2
- 686340152427. 3
- 686340152428. 4

Question Number : 7 Question Id : 68634038594 Question Type : MCQ Option Shuffling : No 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.	Plagiarize	I.	Disrespectful
B.	Dubious	II.	Gift
C.	Contemptuous	III.	Uncertain
D.	Hamper	IV.	Copy

Choose the correct answer from the options given below:

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

Options :

- 686340152425. 1
- 686340152426. 2
- 686340152427. 3
- 686340152428. 4

Question Number : 8 Question Id : 68634038595 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Select the suitable grammatically correct sentence from the given options.

1. The team is confident to win the match
2. The team is confident of winning the match
3. The team is confident of win the match
4. The team is confident for winning the match

Options :

686340152429. 1
686340152430. 2
686340152431. 3
686340152432. 4

Question Number : 8 Question Id : 68634038595 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Select the suitable grammatically correct sentence from the given options.

1. The team is confident to win the match
2. The team is confident of winning the match
3. The team is confident of win the match
4. The team is confident for winning the match

Options :

686340152429. 1
686340152430. 2
686340152431. 3
686340152432. 4

Question Number : 9 Question Id : 68634038596 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Fill in the blank with appropriate word from the options given below:

The foodgrains stocks in India are at all time _____

1. highest

2. high

3. lowest

4. cost

Options :

686340152433. 1

686340152434. 2

686340152435. 3

686340152436. 4

Question Number : 9 Question Id : 68634038596 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Fill in the blank with appropriate word from the options given below:

The foodgrains stocks in India are at all time _____

1. highest

2. high

3. lowest

4. cost

Options :

686340152433. 1

686340152434. 2

686340152435. 3

686340152436. 4

Question Number : 10 Question Id : 68634038597 Question Type : MCQ Option Shuffling : No 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 spelling word for:

"A board game in which players buildup words from small size lettered tiles."

1. Scrabble
2. Scrabble
3. Skrable
4. Scrablee

Options :

- 686340152437. 1
- 686340152438. 2
- 686340152439. 3
- 686340152440. 4

Question Number : 10 Question Id : 68634038597 Question Type : MCQ Option Shuffling : No 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 spelling word for:

"A board game in which players buildup words from small size lettered tiles."

1. Scrabble
2. Scrabble
3. Skrable
4. Scrablee

Options :

- 686340152437. 1
- 686340152438. 2
- 686340152439. 3
- 686340152440. 4

Question Number : 11 Question Id : 68634038598 Question Type : MCQ Option Shuffling : No 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 $5x+4y = 83$ and $\frac{2x}{3y} = 1\frac{1}{21}$, then the value of x^2-y^2 is:

1. 83

2. 72

3. 18

4. 4

Options :

686340152441. 1

686340152442. 2

686340152443. 3

686340152444. 4

Question Number : 11 Question Id : 68634038598 Question Type : MCQ Option Shuffling : No 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 $5x+4y = 83$ and $\frac{2x}{3y} = 1\frac{1}{21}$, then the value of x^2-y^2 is:

1. 83

2. 72

3. 18

4. 4

Options :

686340152441. 1

686340152442. 2

686340152443. 3

686340152444. 4

Question Number : 12 Question Id : 68634038599 Question Type : MCQ Option Shuffling : No 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 greatest possible length which can be used to measure exactly the lengths 16 m 65 cm, 9 m and 4 m 95 cm.

1. 16 m

2. 95 cm

3. 65 cm

4. 45 cm

Options :

686340152445. 1
686340152446. 2
686340152447. 3
686340152448. 4

Question Number : 12 Question Id : 68634038599 Question Type : MCQ Option Shuffling : No 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 greatest possible length which can be used to measure exactly the lengths 16 m 65 cm, 9 m and 4 m 95 cm.

1. 16 m
2. 95 cm
3. 65 cm
4. 45 cm

Options :

686340152445. 1
686340152446. 2
686340152447. 3
686340152448. 4

Question Number : 13 Question Id : 68634038600 Question Type : MCQ Option Shuffling : No 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 average of marks of 15 papers is 42. The average of marks of first 8 papers is 45 and that of the last 8 papers is 36. The marks of 8th paper are:

1. 15
2. 16
3. 17
4. 18

Options :

686340152449. 1
686340152450. 2
686340152451. 3
686340152452. 4

Question Number : 13 Question Id : 68634038600 Question Type : MCQ Option Shuffling : No 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 average of marks of 15 papers is 42. The average of marks of first 8 papers is 45 and that of the last 8 papers is 36. The marks of 8th paper are:

1. 15
2. 16
3. 17
4. 18

Options :

686340152449. 1
686340152450. 2
686340152451. 3
686340152452. 4

Question Number : 14 Question Id : 68634038601 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

10 years ago, the ratio of ages of Vikas and Amish was 1:3. If the ratio of their present ages is 3:5, then after five years the ratio of their ages will be:

1. 2:5
2. 2:3
3. 3:4
4. 5:7

Options :

686340152453. 1
686340152454. 2
686340152455. 3
686340152456. 4

Question Number : 14 Question Id : 68634038601 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

10 years ago, the ratio of ages of Vikas and Amish was 1:3. If the ratio of their present ages is 3:5, then after five years the ratio of their ages will be:

1. 2:5
2. 2:3
3. 3:4
4. 5:7

Options :

- 686340152453. 1
- 686340152454. 2
- 686340152455. 3
- 686340152456. 4

Question Number : 15 Question Id : 68634038602 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Sonu and Monu undertake to do a piece of work for ₹ 3,600. Sonu along can do it in 6 days while Monu alone can do it in 8 days. With the help of Ramu, they finish it in 3 days. The share of Ramu (in ₹) will be :

- 1. 1350
- 2. 900
- 3. 1200
- 4. 450

Options :

- 686340152457. 1
- 686340152458. 2
- 686340152459. 3
- 686340152460. 4

Question Number : 15 Question Id : 68634038602 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Sonu and Monu undertake to do a piece of work for ₹ 3,600. Sonu along can do it in 6 days while Monu alone can do it in 8 days. With the help of Ramu, they finish it in 3 days. The share of Ramu (in ₹) will be :

- 1. 1350
- 2. 900
- 3. 1200
- 4. 450

Options :

- 686340152457. 1
- 686340152458. 2
- 686340152459. 3
- 686340152460. 4

Question Number : 16 Question Id : 68634038603 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

There are 40 girls in a row. Muskan shifted her position 5 places to her left so that there are 10 girls to her left in the row. If Nisha was 4 places right to Muskan's original position, what is the Nisha's position from the Muskan's left side row end?

1. 18

2. 20

3. 22

4. 24

Options :

686340152461. 1

686340152462. 2

686340152463. 3

686340152464. 4

Question Number : 16 Question Id : 68634038603 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

There are 40 girls in a row. Muskan shifted her position 5 places to her left so that there are 10 girls to her left in the row. If Nisha was 4 places right to Muskan's original position, what is the Nisha's position from the Muskan's left side row end?

1. 18

2. 20

3. 22

4. 24

Options :

686340152461. 1

686340152462. 2

686340152463. 3

686340152464. 4

Question Number : 17 Question Id : 68634038604 Question Type : MCQ Option Shuffling : No 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 in a certain code, 15789 is written as EGKPT and 2436 is written as ALUR, how is 24539 written in that code?

1. ALGTU
2. ALEUT
3. ALGUT
4. ALGRT

Options :

- 686340152465. 1
- 686340152466. 2
- 686340152467. 3
- 686340152468. 4

Question Number : 17 Question Id : 68634038604 Question Type : MCQ Option Shuffling : No 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 in a certain code, 15789 is written as EGKPT and 2436 is written as ALUR, how is 24539 written in that code?

1. ALGTU
2. ALEUT
3. ALGUT
4. ALGRT

Options :

- 686340152465. 1
- 686340152466. 2
- 686340152467. 3
- 686340152468. 4

Question Number : 18 Question Id : 68634038605 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Statements : (i) All leaves are dim.

(ii) No dim is brush.

(iii) All tops are brushes.

Conclusions : I. Some tops are leaves.

II. Some dim is top.

III. Some dim is leaf.

IV. Some tops are brushes.

Choose the correct option from the following:

1. Only I and II follow

2. Only II and III follow

3. Only III and IV follow

4. Only I and IV follow

Options :

686340152469. 1

686340152470. 2

686340152471. 3

686340152472. 4

**Question Number : 18 Question Id : 68634038605 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 4 Wrong Marks : 1

Statements : (i) All leaves are dim.

(ii) No dim is brush.

(iii) All tops are brushes.

Conclusions : I. Some tops are leaves.

II. Some dim is top.

III. Some dim is leaf.

IV. Some tops are brushes.

Choose the correct option from the following:

1. Only I and II follow

2. Only II and III follow

3. Only III and IV follow

4. Only I and IV follow

Options :

686340152469. 1

686340152470. 2

686340152471. 3

686340152472. 4

**Question Number : 19 Question Id : 68634038606 Question Type : MCQ Option Shuffling : No 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 letter from these matrices can be represented first by its row and then the column number.

Matrix-I

	0	1	2	3	4
0	F	A	N	O	I
1	I	O	F	A	N
2	A	N	O	I	F
3	O	F	I	N	A
4	N	I	A	F	O

Matrix-II

	5	6	7	8	9
5	S	E	J	B	T
6	H	S	E	T	B
7	B	T	S	E	H
8	E	H	T	B	S
9	T	S	E	H	B

Identify the correct set for the word FAITH :

1. 43, 42, 41, 78, 89
2. 31, 34, 23, 76, 79
3. 24, 31, 10, 59, 57
4. 12, 20, 40, 68, 65

Options :

686340152473. 1
686340152474. 2
686340152475. 3
686340152476. 4

Question Number : 19 Question Id : 68634038606 Question Type : MCQ Option Shuffling : No 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 letter from these matrices can be represented first by its row and then the column number.

Matrix-I

	0	1	2	3	4
0	F	A	N	O	I
1	I	O	F	A	N
2	A	N	O	I	F
3	O	F	I	N	A
4	N	I	A	F	O

Matrix-II

	5	6	7	8	9
5	S	E	J	B	T
6	H	S	E	T	B
7	B	T	S	E	H
8	E	H	T	B	S
9	T	S	E	H	B

Identify the correct set for the word FAITH :

1. 43, 42, 41, 78, 89
2. 31, 34, 23, 76, 79
3. 24, 31, 10, 59, 57
4. 12, 20, 40, 68, 65

Options :

686340152473. 1
686340152474. 2
686340152475. 3
686340152476. 4

Question Number : 20 Question Id : 68634038607 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Select the pair that has the same relationship as the original pair of words given below :

Egg : Omelette

1. Dam : River
2. Student : Classroom
3. Onion : Jam
4. Clay : Pottery

Options :

686340152477. 1
686340152478. 2
686340152479. 3
686340152480. 4

**Question Number : 20 Question Id : 68634038607 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 4 Wrong Marks : 1**

Select the pair that has the same relationship as the original pair of words given below :

Egg : Omelette

1. Dam : River
2. Student : Classroom
3. Onion : Jam
4. Clay : Pottery

Options :

686340152477. 1
686340152478. 2
686340152479. 3
686340152480. 4

**Question Number : 21 Question Id : 68634038608 Question Type : MCQ Option Shuffling : No 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 of the Indian constitution provides for the institution of Panchayati Raj?

1. Article 36
2. Article 39
3. Article 40
4. Article 48

Options :

686340152481. 1
686340152482. 2
686340152483. 3
686340152484. 4

**Question Number : 21 Question Id : 68634038608 Question Type : MCQ Option Shuffling : No 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 of the Indian constitution provides for the institution of Panchayati Raj?

1. Article 36
2. Article 39
3. Article 40
4. Article 48

Options :

686340152481. 1
686340152482. 2
686340152483. 3
686340152484. 4

Question Number : 22 Question Id : 68634038609 Question Type : MCQ Option Shuffling : No 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 (Book Name)		LIST II (Author Name)	
A.	My Truth	I.	Mahatma Gandhi
B.	The Broken Wings	II.	Indira Gandhi
C.	My Experiments with Truth	III.	Sarojini Naidu
D.	Exam Warriors	IV.	Narendra Modi

Choose the correct answer from the options given below:

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

Options :

686340152485. 1
686340152486. 2
686340152487. 3
686340152488. 4

Question Number : 22 Question Id : 68634038609 Question Type : MCQ Option Shuffling : No 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 (Book Name)		LIST II (Author Name)	
A.	My Truth	I.	Mahatma Gandhi
B.	The Broken Wings	II.	Indira Gandhi
C.	My Experiments with Truth	III.	Sarojini Naidu
D.	Exam Warriors	IV.	Narendra Modi

Choose the correct answer from the options given below:

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

Options :

686340152485. 1
686340152486. 2
686340152487. 3
686340152488. 4

Question Number : 23 Question Id : 68634038610 Question Type : MCQ Option Shuffling : No 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 was the first Indian women to win gold in Asian games ?

1. P.T. Usha
2. Shing Wilson
3. Kamaljeet Sandhu
4. Shweta Chaudhary

Options :

686340152489. 1
686340152490. 2
686340152491. 3
686340152492. 4

Question Number : 23 Question Id : 68634038610 Question Type : MCQ Option Shuffling : No 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 was the first Indian women to win gold in Asian games ?

1. P.T. Usha
2. Shing Wilson
3. Kamaljeet Sandhu
4. Shweta Chaudhary

Options :

686340152489. 1
686340152490. 2
686340152491. 3
686340152492. 4

Question Number : 24 Question Id : 68634038611 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

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

Assertion A : Radio waves bend in a magnetic field.

Reason R : Radio waves are electromagnetic in nature.

In the light of the above statements, choose the *most appropriate 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 not false
4. A is not false but R is true

Options :

686340152493. 1
686340152494. 2
686340152495. 3
686340152496. 4

Question Number : 24 Question Id : 68634038611 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

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

Assertion A : Radio waves bend in a magnetic field.

Reason R : Radio waves are electromagnetic in nature.

In the light of the above statements, choose the *most appropriate 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 not false
4. A is not false but R is true

Options :

686340152493. 1

686340152494. 2

686340152495. 3

686340152496. 4

Question Number : 25 Question Id : 68634038612 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Give below are two statements:

Statement I : Dolomite is used as refractory material and flux in iron and steel industry.

Statement II : Lignite and low grade bituminous coal were formed during the quaternary period.

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 :

686340152497. 1

686340152498. 2

686340152499. 3

686340152500. 4

Question Number : 25 Question Id : 68634038612 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Give below are two statements:

Statement I : Dolomite is used as refractory material and flux in iron and steel industry.

Statement II : Lignite and low grade bituminous coal were formed during the quaternary period.

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 :

686340152497. 1
686340152498. 2
686340152499. 3
686340152500. 4

Part B: Electrical Power and Energy Engineering

Section Id :	686340760
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 :	6863401269
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 26 Question Id : 68634038613 Question Type : MCQ Option Shuffling : No 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 Matrix $A = \begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$, the sum and differences of maximum & minimum

eight value of Matrix are 4 and 8, then the eigen values for the Matrix A are.

1. 5, -1, 9
2. -2, 6, 3
3. 7, 3, 2
4. -1, 6, 3

Options :

686340152501. 1

686340152502. 2

686340152503. 3

686340152504. 4

Question Number : 26 Question Id : 68634038613 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

आव्यूह $A = \begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$, के लिए आव्यूह के अधिकतम और न्यूनतम अभिलक्षणिक

(आइगेन) मानों का योग और अन्तर 4 और 8 हैं, तो आव्यूह A के अभिलाक्षणिक मान होंगे

1. 5, -1, 9

2. -2, 6, 3

3. 7, 3, 2

4. -1, 6, 3

Options :

686340152501. 1

686340152502. 2

686340152503. 3

686340152504. 4

Question Number : 27 Question Id : 68634038614 Question Type : MCQ Option Shuffling : No 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 car accelerate from it's Stationary position for 8 seconds and travels a distance of 280m.

According to the mean value theorem, the speedometer at a certain time during acceleration must read exactly.

1. 0

2. 18 km/hr

3. 75 km/hr

4. 126 km/hr

Options :

686340152505. 1

686340152506. 2

686340152507. 3

686340152508. 4

Question Number : 27 Question Id : 68634038614 Question Type : MCQ Option Shuffling : No 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 कार अपनी स्थिर स्थिति से 8 सेकंड के लिए त्वरित होती है और 280 मीटर की दूरी तय करती है। माध्यमान प्रमेय के अनुसार, किसी निश्चित समय पर स्पीडोमीटर (चालमापी) को, त्वरण के दौरान क्या माप (रीडिंग) दिखाना चाहिए?

1. 0
2. 18 किमी/घंटा
3. 75 किमी/घंटा
4. 126 किमी/घंटा

Options :

686340152505. 1
686340152506. 2
686340152507. 3
686340152508. 4

Question Number : 28 Question Id : 68634038615 Question Type : MCQ Option Shuffling : No 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 solution of $x^2 \frac{d^2 y}{dx^2} + x \frac{dy}{dx} + y = \sin(\log x^2)$.

1. $y = A \cos(\log x) + B \sin(\log x) - \frac{1}{3} \sin(\log x^2)$
2. $y = A \cos(\log x^2) + B \sin(\log x^2) + \frac{1}{3} \sin(\log x)$
3. $y = A \cos(\log x) - B \sin(\log x) + \frac{1}{3} \cos(\log x)$
4. $y = A \cos(\log x^2) - B \sin(\log x^2) - \frac{1}{3} \cos(\log x^2)$

Options :

686340152509. 1
686340152510. 2
686340152511. 3
686340152512. 4

Question Number : 28 Question Id : 68634038615 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

$x^2 \frac{d^2 y}{dx^2} + x \frac{dy}{dx} + y = \sin(\log x^2)$ का हल है।

1. $y = A \cos(\log x) + B \sin(\log x) - \frac{1}{3} \sin(\log x^2)$

2. $y = A \cos(\log x^2) + B \sin(\log x^2) + \frac{1}{3} \sin(\log x)$

3. $y = A \cos(\log x) - B \sin(\log x) + \frac{1}{3} \cos(\log x)$

4. $y = A \cos(\log x^2) - B \sin(\log x^2) - \frac{1}{3} \cos(\log x^2)$

Options :

686340152509. 1

686340152510. 2

686340152511. 3

686340152512. 4

Question Number : 29 Question Id : 68634038616 Question Type : MCQ Option Shuffling : No 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 Radius of convergence of the power series $f(z) = \sum_{n=0}^{\infty} \frac{z^n}{2^n + 3}$.

1. 2

2. $\frac{1}{3}$

3. $\frac{3}{2}$

4. $\frac{1}{2}$

Options :

686340152513. 1

686340152514. 2

686340152515. 3

686340152516. 4

Question Number : 29 Question Id : 68634038616 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

घात श्रेणी $f(z) = \sum_{n=0}^{\infty} \frac{z^n}{2^n + 3}$ की अभिसरण त्रिज्या है।

1. 2

2. $\frac{1}{3}$

3. $\frac{3}{2}$

4. $\frac{1}{2}$

Options :

686340152513. 1

686340152514. 2

686340152515. 3

686340152516. 4

Question Number : 30 Question Id : 68634038617 Question Type : MCQ Option Shuffling : No 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 x is continuous random variable, and a probability density function

$f(x) = ke^{-3|x|}, x \in (-\infty, \infty)$. The value of k is

1. 3

2. $\frac{3}{2}$

3. $\frac{2}{3}$

4. 2

Options :

686340152517. 1

686340152518. 2

686340152519. 3

686340152520. 4

Question Number : 30 Question Id : 68634038617 Question Type : MCQ Option Shuffling : No 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 x एक संतत यादृच्छिक चर है और एक प्रायिकता घनत्व फलन

$f(x) = ke^{-3|x|}$, $x \in (-\infty, \infty)$ है तो k का मान है।

1. 3

2. $\frac{3}{2}$

3. $\frac{2}{3}$

4. 2

Options :

686340152517. 1

686340152518. 2

686340152519. 3

686340152520. 4

Question Number : 31 Question Id : 68634038618 Question Type : MCQ Option Shuffling : No 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 Force current analogy, stiffness constant K is analogous to _____

1. Inductance

2. Reciprocal of Inductance

3. Capacitance

4. Reciprocal of Capacitance

Options :

686340152521. 1

686340152522. 2

686340152523. 3

686340152524. 4

Question Number : 31 Question Id : 68634038618 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

बल-धारा अनुरूपता में, दुर्नम्यता गुणांक K अनुरूप है _____

1. प्रेरकत्व

2. प्रेरकत्व का विलोम

3. धारिता

4. धारिता के विलोम

Options :

686340152521. 1

686340152522. 2

686340152523. 3

686340152524. 4

Question Number : 32 Question Id : 68634038619 Question Type : MCQ Option Shuffling : No 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 moving coil ammeter having resistance of 10 ohm gives full scale. detection when current of 5 mA passed through it. The resistance to be connected to make the instrument to read up to 1 A is _____

1. 0.05025Ω

2. $5 \times 10^{-3}\Omega$

3. 50Ω

4. 50.032Ω

Options :

686340152525. 1

686340152526. 2

686340152527. 3

686340152528. 4

Question Number : 32 Question Id : 68634038619 Question Type : MCQ Option Shuffling : No 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 चल कुंडली एमीटर, जिसका प्रतिरोध 10 ओम (Ω) है, जब उस में से 5 mA विद्युत धारा प्रवाहित होती है तो वह पूर्ण स्केल विक्षेपण दिखाता है। उस प्रतिरोध का मान निकालिए जिसे जब उपकरण से जोड़ा जाए तो वह 1 A तक पढ़ सके।

1. 0.05025Ω

2. $5 \times 10^{-3}\Omega$

3. 50Ω

4. 50.032Ω

Options :

686340152525. 1

686340152526. 2

686340152527. 3

686340152528. 4

Question Number : 33 Question Id : 68634038620 Question Type : MCQ Option Shuffling : No 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 frequency sensitive bridge?

1. De-Santy Bridge
2. Owen's Bridge
3. Wien's Bridge
4. Maxwell's Bridge

Options :

686340152529. 1
686340152530. 2
686340152531. 3
686340152532. 4

Question Number : 33 Question Id : 68634038620 Question Type : MCQ Option Shuffling : No 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 एक आवृत्ति सुग्राही सेतु है?

1. डीसेती सेतु
2. ओन सेतु
3. वीन सेतु
4. मैक्सवेल सेतु

Options :

686340152529. 1
686340152530. 2
686340152531. 3
686340152532. 4

Question Number : 34 Question Id : 68634038621 Question Type : MCQ Option Shuffling : No 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 0 to 200V Voltmeter has a accuracy of 1% of full scale reading. The voltage measure by this instrument is 50V. What is limiting error?

1. 4%
2. 2%
3. 1%
4. 0.25%

Options :

686340152533. 1
686340152534. 2
686340152535. 3
686340152536. 4

Question Number : 34 Question Id : 68634038621 Question Type : MCQ Option Shuffling : No 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 0 - 200V वोल्टमीटर की यथार्थता पूर्ण स्केल रीडिंग (मापन) के लिए 1% है। यदि वह उपकरण 50 वोल्टेज मापता है तो उसका सीमांत त्रुटि होगी :-

1. 4%

2. 2%

3. 1%

4. 0.25%

Options :

686340152533. 1

686340152534. 2

686340152535. 3

686340152536. 4

Question Number : 35 Question Id : 68634038622 Question Type : MCQ Option Shuffling : No 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 displacement transducer is used for accurate and linear measurement?

1. LVDT

2. Strain gauge

3. Potentiometer

4. Capacitive displacement transducer

Options :

686340152537. 1

686340152538. 2

686340152539. 3

686340152540. 4

Question Number : 35 Question Id : 68634038622 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

कौन से विस्थापन ट्रान्सड्यूसर का प्रयोग यथार्थ और रैखिक मापन के लिए होता है?

1. LVDT

2. विकृतिमापी

3. विभवमापी

4. धारिता विस्थापन ट्रान्सड्यूसर

Options :

686340152537. 1

686340152538. 2

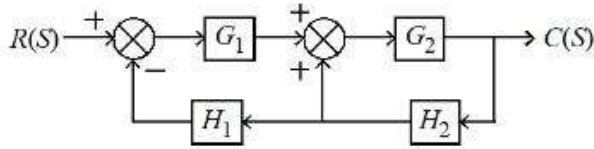
686340152539. 3

686340152540. 4

Question Number : 36 Question Id : 68634038623 Question Type : MCQ Option Shuffling : No 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 overall gain $\frac{C(S)}{R(S)}$ of the block diagram shown below is



1. $\frac{G_1 G_2}{1 - G_1 G_2 H_1 H_2}$

2. $\frac{G_1 G_2}{1 - G_2 H_2 - G_1 G_2 H_1}$

3. $\frac{G_1 G_2}{1 - G_2 H_2 + G_1 G_2 H_2}$

4. $\frac{G_1 G_2}{1 - G_1 G_2 H_1 - G_1 G_2 H_2}$

Options :

686340152541. 1

686340152542. 2

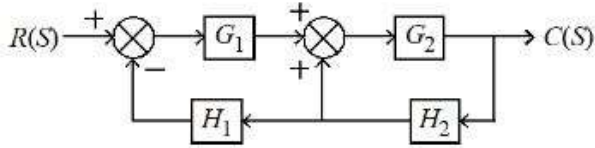
686340152543. 3

686340152544. 4

Question Number : 36 Question Id : 68634038623 Question Type : MCQ Option Shuffling : No 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 ब्लॉक चित्र की कुल लब्धि $\frac{C(S)}{R(S)}$ का मान क्या होगा?



1. $\frac{G_1 G_2}{1 - G_1 G_2 H_1 H_2}$
2. $\frac{G_1 G_2}{1 - G_2 H_2 - G_1 G_2 H_1}$
3. $\frac{G_1 G_2}{1 - G_2 H_2 + G_1 G_2 H_2}$
4. $\frac{G_1 G_2}{1 - G_1 G_2 H_1 - G_1 G_2 H_2}$

Options :

686340152541. 1
 686340152542. 2
 686340152543. 3
 686340152544. 4

Question Number : 37 Question Id : 68634038624 Question Type : MCQ Option Shuffling : No 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 (Characteristic Equation)	LIST II (Nature of Output)
A. $S^2+18S+64$	I. Underdamped
B. S^2+25	II. Critically damped
C. $S^2+12S+36$	III. Undamped
D. $S^2+8S+25$	IV. Overdamped

Choose the correct answer from the options given below:

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

Options :

686340152545. 1
 686340152546. 2
 686340152547. 3
 686340152548. 4

Question Number : 37 Question Id : 68634038624 Question Type : MCQ Option Shuffling : No 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.	$S^2+18S+64$	I.	न्यून अवमंदित
B.	S^2+25	II.	क्रांतिकतः अवमंदित
C.	$S^2+12S+36$	III.	अतवमंदित
D.	$S^2+8S+25$	IV.	अतिअवमंदित

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

686340152545. 1
686340152546. 2
686340152547. 3
686340152548. 4

Question Number : 38 Question Id : 68634038625 Question Type : MCQ Option Shuffling : No 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 (Nature of Component)		LIST II (Type of Component)	
A.	Amplidyne	I.	Rate feedback element
B.	Potentiometer	II.	Actuator
C.	Stepper Motor	III.	Servo Amplifier
D.	AC Tacho generator	IV.	Error detector

Choose the correct answer from the options given below:

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

Options :

686340152549. 1
686340152550. 2
686340152551. 3
686340152552. 4

Question Number : 38 Question Id : 68634038625 Question Type : MCQ Option Shuffling : No 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.	ऐम्प्लीडाइन	I.	दर पुनर्मरण अवयव
B.	विभवमापी	II.	प्रवर्तक
C.	स्टेपर मोटर	III.	सर्वो-प्रवर्धक
D.	AC टैको जनित्र	IV.	वृद्धि-संसूचक

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

686340152549. 1
686340152550. 2
686340152551. 3
686340152552. 4

Question Number : 39 Question Id : 68634038626 Question Type : MCQ Option Shuffling : No 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. For a linear discrete system to be stable, the characteristics equation $1+GH(z)=0$, should be inside the unit circle.
- B. Bode diagram of a sampled data system can be constructed using bilinear transformation.
- C. Root locus technique can be used for sampled data system, without requiring modification.

Choose the most appropriate answer from the options given below:

1. A Only
2. B and C Only
3. A and C Only
4. A,B and C Only

Options :

686340152553. 1
686340152554. 2
686340152555. 3
686340152556. 4

Question Number : 39 Question Id : 68634038626 Question Type : MCQ Option Shuffling : No 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. एक रेखिक असंतत प्रणाली (समूह) के लिए, स्थायी होने के लिए विशिष्ट समीकरण $1+GH(z)=0$ को, एकांक वृत्त के भीतर होना चाहिए।
- B. प्रतिदर्शित डाटा प्रणाली क्अ बोड चित्र एकैकी रूपांतरण का प्रयोग करके बनाया जाता है
- C. मूल विस्थल तकनीक का प्रयोग, प्रतिदर्शित डाटा प्रणाली के लिए बिना किसी रूपांतरण के, किया जा सकता है।

नीचे दिये गए विकल्पों में सर्वाधिक उपयुक्त उत्तर का चयन करें।

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

Options :

- 686340152553. 1
- 686340152554. 2
- 686340152555. 3
- 686340152556. 4

Question Number : 40 Question Id : 68634038627 Question Type : MCQ Option Shuffling : No 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 Nyquist plot of a system passes through $(-1, j0)$ point in the $G(j\omega) H(j\omega)$ plane, the phase margin of the system is

- 1. Infinite
- 2. greater than zero but not infinite
- 3. zero
- 4. less than zero

Options :

- 686340152557. 1
- 686340152558. 2
- 686340152559. 3
- 686340152560. 4

Question Number : 40 Question Id : 68634038627 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

किसी प्रणाली का नाइक्विस्ट आलेख, किसी बिंदु $(-1, j0)$ से, तल $G(j\omega) H(j\omega)$ में से गुजरता है, तो प्रणाली का कला परिसर होगा?

1. अनंत
2. शून्य से बड़ा पर अनंत नहीं
3. शून्य
4. शून्य से कम

Options :

686340152557. 1
686340152558. 2
686340152559. 3
686340152560. 4

Question Number : 41 Question Id : 68634038628 Question Type : MCQ Option Shuffling : No 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 system matrix of a linear time invariant continuous time system is given by

$$A = \begin{bmatrix} 0 & 1 \\ -4 & -5 \end{bmatrix}$$

What are the roots of characteristics equation.

1. -1, -4
2. -1, -5
3. -4, -5
4. 0, -1

Options :

686340152561. 1
686340152562. 2
686340152563. 3
686340152564. 4

Question Number : 41 Question Id : 68634038628 Question Type : MCQ Option Shuffling : No 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 रेखिक काल निश्चित संतत समयक्त प्रणाली का निकाय आव्यूह दिया जाता है

$$A = \begin{bmatrix} 0 & 1 \\ -4 & -5 \end{bmatrix}$$

तो विशिष्ट समीकरण के मूल (रूट) है।

1. -1, -4
2. -1, -5
3. -4, -5
4. 0, -1

Options :

686340152561. 1
686340152562. 2
686340152563. 3
686340152564. 4

Question Number : 42 Question Id : 68634038629 Question Type : MCQ Option Shuffling : No 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 state transition matrix represents the free response of the system.

Reason R: The state transition matrix satisfies the homogeneous state equation

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 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 :

686340152565. 1
686340152566. 2
686340152567. 3
686340152568. 4

Question Number : 42 Question Id : 68634038629 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

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

अभिकथन A: अवस्था संक्रमण आव्यूह, निकाय की मुक्त अनुक्रिया दर्शाता है

कारण R: अवस्था संक्रमण आव्यूह, समांगी अवस्था समीकरण को संतुष्ट करता है

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

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

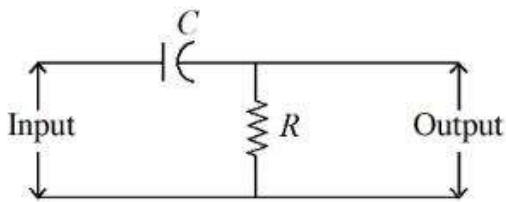
Options :

686340152565. 1
686340152566. 2
686340152567. 3
686340152568. 4

Question Number : 43 Question Id : 68634038630 Question Type : MCQ Option Shuffling : No 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 transfer function for the diagram shown below is given by _____



1. $\frac{1}{1 + SRC}$
2. $\frac{SRC}{1 + SRC}$
3. $\frac{SRC}{1 - SRC}$
4. $1 + SRC$

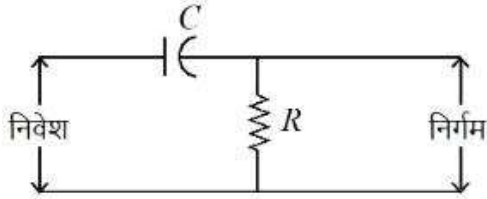
Options :

686340152569. 1
686340152570. 2
686340152571. 3
686340152572. 4

Question Number : 43 Question Id : 68634038630 Question Type : MCQ Option Shuffling : No 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 चित्र का अंतरित फलन दिया जाता है



1. $\frac{1}{1 + SRC}$

2. $\frac{SRC}{1 + SRC}$

3. $\frac{SRC}{1 - SRC}$

4. $1 + SRC$

Options :

686340152569. 1

686340152570. 2

686340152571. 3

686340152572. 4

Question Number : 44 Question Id : 68634038631 Question Type : MCQ Option Shuffling : No 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.	Damper Winding	I.	To improvement the power factor
B.	Laminated steel	II.	To reduce the starch current
C.	Auto transformer starters	III.	Prevent hunting
D.	synchronous condenser	IV.	Reduce eddy current loss

Choose the correct answer from the options given below:

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

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

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

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

Options :

686340152573. 1

686340152574. 2

686340152575. 3

686340152576. 4

Question Number : 44 Question Id : 68634038631 Question Type : MCQ Option Shuffling : No 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.	अवमंदक कुंडली	I.	शक्ति गुणांक को सुधारने के लिए
B.	पटलित स्टील	II.	प्रारम्भिक धारा को कम करने के लिए
C.	स्वपरिणामित्र प्रवर्तक (ऑटोट्रान्सफॉर्मर)	III.	हन्टिंग बचाव से
D.	तुल्यकालिक संग्राही (संधारित्र)	IV.	भंवर धारा हास को कम करना

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

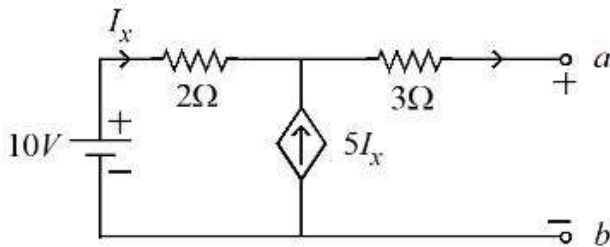
Options :

686340152573. 1
686340152574. 2
686340152575. 3
686340152576. 4

Question Number : 45 Question Id : 68634038632 Question Type : MCQ Option Shuffling : No 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 $R_{\text{equivalent}}$ of the given circuit.



1. 3.33Ω
2. 5Ω
3. 1.77Ω
4. 2.5Ω

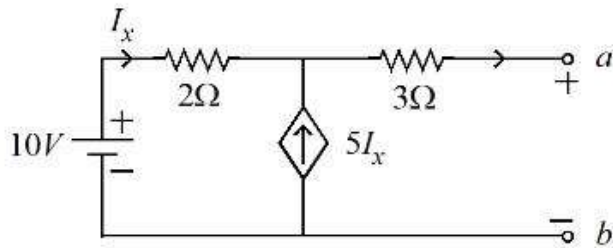
Options :

686340152577. 1
686340152578. 2
686340152579. 3
686340152580. 4

Question Number : 45 Question Id : 68634038632 Question Type : MCQ Option Shuffling : No 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 विद्युत परिपथ का R तुल्य ज्ञात कीजिए



1. 3.33Ω

2. 5Ω

3. 1.77Ω

4. 2.5Ω

Options :

686340152577. 1

686340152578. 2

686340152579. 3

686340152580. 4

Question Number : 46 Question Id : 68634038633 Question Type : MCQ Option Shuffling : No 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 function of oil in transformer is

1. To provide insulation & cooling

2. To provide protection against earthing

3. To provide protection from in rush current

4. To protect from eddy current

Options :

686340152581. 1

686340152582. 2

686340152583. 3

686340152584. 4

Question Number : 46 Question Id : 68634038633 Question Type : MCQ Option Shuffling : No 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 परिणामित्र (ट्रान्सफॉर्मर) में तेल का कार्य होता है

1. रोधन और शीतलता प्रदान करना
2. भूसंपर्कन के विरुद्ध सुरक्षा प्रदान करना
3. अंतर्वाह धारा से सुरक्षा प्रदान करना
4. भंवर धारा हास से सुरक्षा प्रदान करना

Options :

686340152581. 1
686340152582. 2
686340152583. 3
686340152584. 4

Question Number : 47 Question Id : 68634038634 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

When the speed becomes more than the synchronous speed during hunting, the damper bars develop_____

1. Synchronous motor torque
2. Single phase induction motor torque
3. Induction motor torque
4. Induction generator torque

Options :

686340152585. 1
686340152586. 2
686340152587. 3
686340152588. 4

Question Number : 47 Question Id : 68634038634 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

जब हन्टिंग के दौरान चाल, तुल्यकालिक चाल से अधिक हो जाती है तो अवमंदन छोड़े उत्पन्न करती हैं _____

1. तुल्यकालिक मोटर बल आघूर्ण
2. एकल प्रावस्था प्रेरणी मोटर बल आघूर्ण
3. प्रेरणी मोटर बल आघूर्ण
4. प्ररणी जनित्र बल आघूर्ण

Options :

686340152585. 1
686340152586. 2
686340152587. 3

Question Number : 48 Question Id : 68634038635 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I: The speed of an induction motor can not be continued as easily and efficiently as that of a dc shunt motor.

Statement II: Slip of an induction motor can not be changed by varying the voltage applied to the stator

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 :

686340152589. 1

686340152590. 2

686340152591. 3

686340152592. 4

Question Number : 48 Question Id : 68634038635 Question Type : MCQ Option Shuffling : No 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: एक प्रेरणी मोटर की चाल, एक डी सी शंट मोटर की अपेक्षा अधिक आसानी और कुशलता से नियंत्रित की जा सकती है

कथन II: एक प्रेरणी मोटर के सर्पण (स्लिप) में परिवर्तन, उनके प्रवर्तक (आरंभक) पर लग रही वोल्टेज में परिवर्तन करके, नहीं लाया जा सकता

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

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

Options :

686340152589. 1

686340152590. 2

686340152591. 3

686340152592. 4

Question Number : 49 Question Id : 68634038636 Question Type : MCQ Option Shuffling : No 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 (Type of Test)		LIST II (Quantities to be measured)	
A.	Open circuit test	I.	Copper loss and iron loss
B.	Short circuit test	II.	Total losses
C.	Sumpner's test	III.	Iron test
D.	Load test	IV.	Copper losses

Choose the correct answer from the options given below:

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

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

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

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

Options :

686340152593. 1

686340152594. 2

686340152595. 3

686340152596. 4

Question Number : 49 Question Id : 68634038636 Question Type : MCQ Option Shuffling : No 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 (परीक्षण के प्रकार)	सूची II (मापन के लिए राशियाँ)
A. खुला परिपथ परीक्षक	I. कॉपर ह्रास और लोह ह्रास
B. लघु परिपथ परीक्षण	II. कुल ह्रास
C. सम्पनर परीक्षण	III. लोह-ह्रास
D. लोड (भार) परीक्षण	IV. कॉपर ह्रास

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

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

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

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

Options :

686340152593. 1

686340152594. 2

686340152595. 3

686340152596. 4

Question Number : 50 Question Id : 68634038637 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Core loss in a transformer is usually _____

1. 1% to 3%
2. 10% to 15%
3. 25% to 30%
4. 40% to 50%

Options :

- 686340152597. 1
- 686340152598. 2
- 686340152599. 3
- 686340152600. 4

Question Number : 50 Question Id : 68634038637 Question Type : MCQ Option Shuffling : No 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 ट्रांसफॉर्मर (परिणामित्र) में क्रोड हास अधिकतर होता है

1. 1% से 3%
2. 10% से 15%
3. 25% से 30%
4. 40% से 50%

Options :

- 686340152597. 1
- 686340152598. 2
- 686340152599. 3
- 686340152600. 4

Question Number : 51 Question Id : 68634038638 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Series field winding of dc machine consists of

1. few turns of thick wire
2. few turns of thin wire
3. many turns of thick wire
4. many turns of thin wire.

Options :

- 686340152601. 1
- 686340152602. 2
- 686340152603. 3

Question Number : 51 Question Id : 68634038638 Question Type : MCQ Option Shuffling : No 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 दिष्टधारी (डी सी) मशीन की श्रेणी क्षेत्र कुंडली बनी होती है :-

1. कुछ फेरे मोटी तार के
2. कुछ फेरे पतली तार के
3. बहुत से फेरे मोटी तार के
4. बहुत से फेरे पतली तार के

Options :

686340152601. 1
686340152602. 2
686340152603. 3
686340152604. 4

Question Number : 52 Question Id : 68634038639 Question Type : MCQ Option Shuffling : No 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.	h_{11}	I.	$\frac{1}{Z_{11}}$
B.	h_{22}	II.	$\frac{1}{Y_{11}}$
C.	g_{11}	III.	$\frac{1}{Y_{22}}$
D.	g_{22}	IV.	$\frac{1}{Z_{22}}$

Choose the correct answer from the options given below:

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

Options :

686340152605. 1
686340152606. 2
686340152607. 3
686340152608. 4

Question Number : 52 Question Id : 68634038639 Question Type : MCQ Option Shuffling : No 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.	h_{11}	I.	$\frac{1}{Z_{11}}$
B.	h_{22}	II.	$\frac{1}{Y_{11}}$
C.	g_{11}	III.	$\frac{1}{Y_{22}}$
D.	g_{22}	IV.	$\frac{1}{Z_{22}}$

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

686340152605. 1
686340152606. 2
686340152607. 3
686340152608. 4

Question Number : 53 Question Id : 68634038640 Question Type : MCQ Option Shuffling : No 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: A series RLC circuit is said to be in resonance when current delivered by the source is in phase with the source voltage.

Statement II: Power factor of a series RLC is zero, if circuit is in resonance condition.

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 :

686340152609. 1
686340152610. 2
686340152611. 3
686340152612. 4

Question Number : 53 Question Id : 68634038640 Question Type : MCQ Option Shuffling : No 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: एक श्रेणी RLC परिपथ अनुनादी कहलाता है जब स्रोत द्वारा प्रदान की गई विद्युत धारा, स्रोत (वोल्टेज) के साथ कला में होती है।

कथन II: एक श्रेणी RLC परिपथ का शक्ति गुणांक शून्य होता है यदि परिपथ अनुनादी स्थिति में है।

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

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

Options :

686340152609. 1
686340152610. 2
686340152611. 3
686340152612. 4

Question Number : 54 Question Id : 68634038641 Question Type : MCQ Option Shuffling : No 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 transfer impedances and admittance of a network remain constant when the position of excitation and response are interchanged if the network _____.

- A. is linear
- B. consists of bilateral elements
- C. has high impedance or admittance as the case may be
- D. is resonant

Choose the most appropriate answer from the options given below :

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

Options :

686340152613. 1
686340152614. 2
686340152615. 3
686340152616. 4

Question Number : 54 Question Id : 68634038641 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

किसी परिपथ की अंतरित प्रतिबाधा और प्रवेश्यता स्थिर रहती है जब उत्तेजन और अभिक्रिया की स्थितियाँ परस्पर बदल जाती हैं, यदि परिपथ _____।

- A. रेखिक है
- B. द्विपक्षीय अवयवों का बना है
- C. की उच्च प्रतिबाधा या प्रवेश्यता है, (स्थिर अनुसार)
- D. अनुनादी है

नीचे दिये गए विकल्पों में सर्वाधिक उपयुक्त उत्तर का चयन करें।

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

Options :

686340152613. 1
686340152614. 2
686340152615. 3
686340152616. 4

Question Number : 55 Question Id : 68634038642 Question Type : MCQ Option Shuffling : No 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 a fixed voltage, the current flowing through a conductor will increase when it's _____

1. Area of X-section is reduced
2. Length is reduced
3. Length is increased
4. Length is increased and x-sectional area is reduced.

Options :

686340152617. 1
686340152618. 2
686340152619. 3
686340152620. 4

Question Number : 55 Question Id : 68634038642 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

स्थिर विभव (वोल्टेज) पर, किसी चालक से बह रही विद्युत धारा बढ़ जाएगी, जब उसका

1. X-खंड का क्षेत्रफल कम हो जाएगा
2. लंबाई कम हो जाएगी
3. लंबाई बढ़ जाएगी
4. लंबाई बढ़ जाएगी और X-खंड का क्षेत्रफल कम हो जाएगा

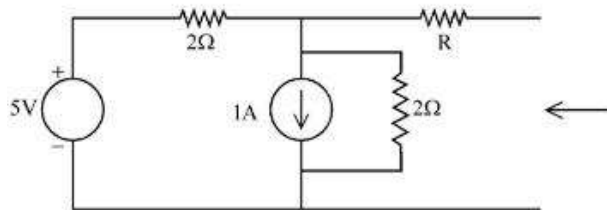
Options :

686340152617. 1
686340152618. 2
686340152619. 3
686340152620. 4

Question Number : 56 Question Id : 68634038643 Question Type : MCQ Option Shuffling : No 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 Thevenin's equivalent resistance of the given circuit seen from the open terminals is 2Ω , then the value of 'R' will be _____



1. 4Ω
2. 2Ω
3. 1Ω
4. 6Ω

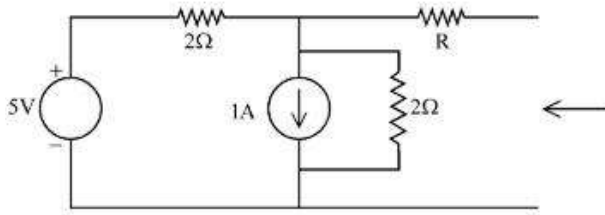
Options :

686340152621. 1
686340152622. 2
686340152623. 3
686340152624. 4

Question Number : 56 Question Id : 68634038643 Question Type : MCQ Option Shuffling : No 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 दिए गए विद्युत परिपथ का थेवेनिन तुल्य प्रतिरोध, जब उन्हें खुले टर्मिनल से देखा जाता है का मान 2Ω है। तो 'R' का मान होगा _____



1. 4Ω
2. 2Ω
3. 1Ω
4. 6Ω

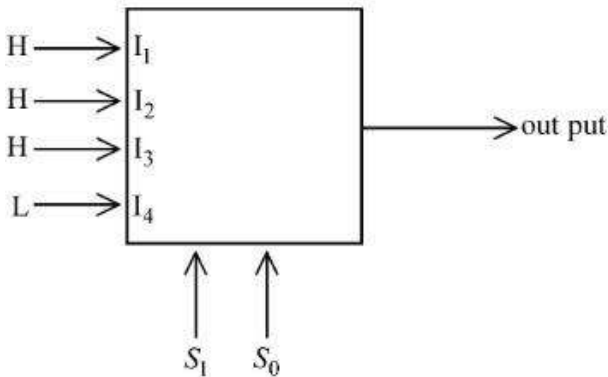
Options :

686340152621. 1
 686340152622. 2
 686340152623. 3
 686340152624. 4

Question Number : 57 Question Id : 68634038644 Question Type : MCQ Option Shuffling : No 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 figure shown, where H= High input, L = Low Input



S_1 and $S_0 \rightarrow$ Control Inputs

This multiplexer is equivalent to _____

1. NAND gate
2. AND gate
3. OR gate
4. Ex-NOR gate

Options :

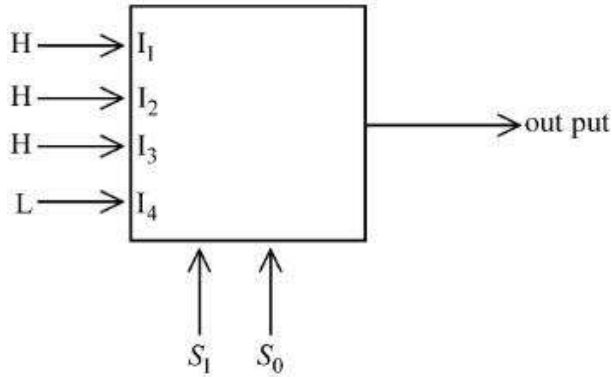
686340152625. 1
 686340152626. 2
 686340152627. 3

Question Number : 57 Question Id : 68634038644 Question Type : MCQ Option Shuffling : No 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 चित्र में दिखाया गया है,

यहाँ H= उच्च निवेश, L = निम्न निवेश



S_1 और $S_0 \rightarrow$ नियंत्रित निवेश है

यह बहुसंकेतक तुल्य है _____ के

1. NAND गेट
2. AND गेट
3. OR गेट
4. Ex-NOR गेट

Options :

686340152625. 1

686340152626. 2

686340152627. 3

686340152628. 4

Question Number : 58 Question Id : 68634038645 Question Type : MCQ Option Shuffling : No 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 combinational logic circuit has three inputs A, B and C and one output Y. The output $Y=1$, when at least two inputs are 1. otherwise, $Y=0$. In its minimised SOP realization, the maximum number of two-input terms is:

1. 1
2. 2
3. 3
4. 4

Options :

686340152629. 1

686340152630. 2

686340152631. 3

686340152632. 4

Question Number : 58 Question Id : 68634038645 Question Type : MCQ Option Shuffling : No 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 संयुक्त लॉजिक (तर्क) परिपथ के तीन निवेश A, B और C तथा एक निर्गम Y है। निर्गम $Y=1$ होता है जब कम से कम दो निवेश 1 होते हैं, नहीं तो $Y=0$ होता है। अपने न्यूनतमीकृत SOP प्रापण में, अधिकतम (दो) 2 - निवेश फेरो की संख्या है

1. 1

2. 2

3. 3

4. 4

Options :

686340152629. 1

686340152630. 2

686340152631. 3

686340152632. 4

Question Number : 59 Question Id : 68634038646 Question Type : MCQ Option Shuffling : No 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 (Oscillator and Amplifier)		LIST II (Characteristics)	
A.	Wien-bridge oscillator	I.	Low output impedance
B.	Voltage-shunt feedback amplifier	II.	RF frequency range
C.	Crystal Oscillator	III.	Audio frequency range
D.	Current-shunt feedback amplifier	IV.	High output impedance

Choose the correct answer from the options given below:

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

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

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

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

Options :

686340152633. 1

686340152634. 2

686340152635. 3

686340152636. 4

Question Number : 59 Question Id : 68634038646 Question Type : MCQ Option Shuffling : No 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 (दोलक और प्रवर्धक)	सूची II (विशेषताएं)
A. वीन-सेतु दोलक	I. निम्न निर्गत प्रतिबाधा
B. वोल्टेज-शंट पुनर्भरण	II. RF आवृत्ति परास
C. क्रिस्टल दोलक	III. श्रव्य आवृत्ति परास
D. धारा-शंट पुनर्भरण प्रवर्धक	IV. उच्च निर्गत प्रतिबाधा

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

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

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

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

Options :

686340152633. 1

686340152634. 2

686340152635. 3

686340152636. 4

Question Number : 60 Question Id : 68634038647 Question Type : MCQ Option Shuffling : No 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 resolution for n-bit system D/A Converter is _____

1. $\frac{1}{2^N}$

2. $\frac{1}{2^N} - 1$

3. 2^{N-1}

4. 2^N

Options :

686340152637. 1

686340152638. 2

686340152639. 3

686340152640. 4

Question Number : 60 Question Id : 68634038647 Question Type : MCQ Option Shuffling : No 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 n-बिट प्रणाली (निकाय) D/A परिवर्तक के लिए विभेदन है _____

1. $\frac{1}{2^N}$

2. $\frac{1}{2^N} - 1$

3. 2^{N-1}

4. 2^N

Options :

686340152637. 1

686340152638. 2

686340152639. 3

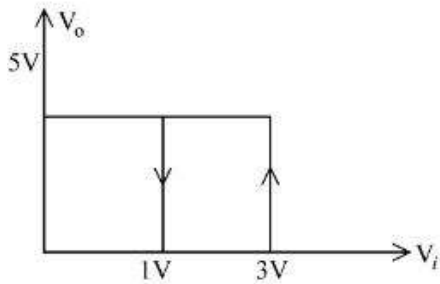
686340152640. 4

Question Number : 61 Question Id : 68634038648 Question Type : MCQ Option Shuffling : No 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 input-output characteristics of a Schmitt trigger is given in figure.

The noise margin of the Schmitt Trigger is _____



1. 1V

2. 2V

3. 3V

4. 4V

Options :

686340152641. 1

686340152642. 2

686340152643. 3

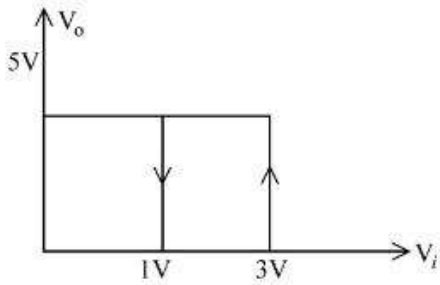
686340152644. 4

Question Number : 61 Question Id : 68634038648 Question Type : MCQ Option Shuffling : No 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 शिम्ट ट्रिगर की निवेश-निर्गम विशेषताएं चित्र में दी गई हैं।

शिम्ट ट्रिगर का ख उपांत (मार्जन) होगा?



1. 1V

2. 2V

3. 3V

4. 4V

Options :

686340152641. 1

686340152642. 2

686340152643. 3

686340152644. 4

Question Number : 62 Question Id : 68634038649 Question Type : MCQ Option Shuffling : No 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 number of selector lines required in a 1:16 demultiplexer?

1. 16

2. 1

3. 4

4. 2^{16}

Options :

686340152645. 1

686340152646. 2

686340152647. 3

686340152648. 4

Question Number : 62 Question Id : 68634038649 Question Type : MCQ Option Shuffling : No 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 1:16 बहुसंकेतक में कितनी संख्या की वरिष्ठ रेखाएं (सेलेक्टेड लाइन) आवश्यकता होती है

1. 16

2. 1

3. 4

4. 2^{16}

Options :

686340152645. 1

686340152646. 2

686340152647. 3

686340152648. 4

Question Number : 63 Question Id : 68634038650 Question Type : MCQ Option Shuffling : No 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: Clipping circuits control the shape of the waveform by clipping on removing a portion of the applied wave.

Reason R: Clipping circuit needs minimum three components namely an ordinary diode, a resistor and a capacitor.

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 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 :

686340152649. 1

686340152650. 2

686340152651. 3

686340152652. 4

Question Number : 63 Question Id : 68634038650 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

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

अभिकथन A: कर्तन परिपथ, कर्तन या प्रयुक्त तरंग के एक भाग को हटाने के द्वारा तरंग रूप की आकृति नियंत्रित करते हैं

कारण R: कर्तन परिपथ को कम से कम तीन घटकों की आवश्यकता होती है, एक सामान्य डायोड, एक प्रतिरोध और एक संधारित्र

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

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

Options :

686340152649. 1
686340152650. 2
686340152651. 3
686340152652. 4

Question Number : 64 Question Id : 68634038651 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

If the power and current gains of a transistor amplifier are 16500 and 100 respectively, then voltage gain is ____

1. 165
2. 165×10^4
3. 100
4. $1/165$

Options :

686340152653. 1
686340152654. 2
686340152655. 3
686340152656. 4

Question Number : 64 Question Id : 68634038651 Question Type : MCQ Option Shuffling : No 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 ट्रांजिस्टर प्रवर्धक के शक्ति और धारा लब्धि क्रमशः 16500 और 100, तो वोल्टेज (विभव) लब्धि होगी?

1. 165
2. 165×10^4
3. 100
4. 1/165

Options :

686340152653. 1
686340152654. 2
686340152655. 3
686340152656. 4

Question Number : 65 Question Id : 68634038652 Question Type : MCQ Option Shuffling : No 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 purpose of a coupling capacitor in a transistor amplifier is to _____

1. increase the output impedance of transistor
2. protect the transistor
3. pass A.C and block D.C
4. provide biasing

Options :

686340152657. 1
686340152658. 2
686340152659. 3
686340152660. 4

Question Number : 65 Question Id : 68634038652 Question Type : MCQ Option Shuffling : No 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 ट्रांजिस्टर प्रवर्धक में, एक युग्मन संधारित्र का उद्देश्य है :-

1. ट्रांजिस्टर की निर्गत प्रतिबाधा को बढ़ाना
2. ट्रांजिस्टर की सुरक्षा
3. प्रत्यावर्ती धारा (AC) को बहने देने और दिष्ट धारा (DC) को रोकना
4. अभिनति (बायस) प्रदान करना

Options :

686340152657. 1
686340152658. 2
686340152659. 3
686340152660. 4

Question Number : 66 Question Id : 68634038653 Question Type : MCQ Option Shuffling : No 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 frequency stability of the oscillator output is maximum in _____

1. LC Oscillator
2. phase-shift Oscillators
3. Crystal Oscillators
4. Wein bridge Oscillators

Options :

- 686340152661. 1
- 686340152662. 2
- 686340152663. 3
- 686340152664. 4

Question Number : 66 Question Id : 68634038653 Question Type : MCQ Option Shuffling : No 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 दोलक के निर्गम का आवृत्ति स्थायित्व _____ में अधिकतम होता है।

1. LC दोलक
2. कला-विस्थापी
3. क्रिस्टल दोलक
4. वीन सेतु दोलक

Options :

- 686340152661. 1
- 686340152662. 2
- 686340152663. 3
- 686340152664. 4

Question Number : 67 Question Id : 68634038654 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Dark Current in semi-conductor photo-diode is _____

1. The forward bias current
2. the forward saturation current
3. the reverse saturation current
4. the transient current

Options :

- 686340152665. 1
- 686340152666. 2
- 686340152667. 3

686340152668. 4

Question Number : 67 Question Id : 68634038654 Question Type : MCQ Option Shuffling : No 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 अर्धचालक फोटो डायोड में अदीप्त धारा हैं :-

1. अग्रदिशिक बायस धारा
2. अग्र संतृप्ति धारा
3. पश्च संतृप्ति धारा
4. क्षणिक धारा

Options :

686340152665. 1

686340152666. 2

686340152667. 3

686340152668. 4

Question Number : 68 Question Id : 68634038655 Question Type : MCQ Option Shuffling : No 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 Op-amp has a slew rate of $5V/\mu s$. The largest sine wave output voltage possible at a frequency of 1MHz is _____

1. $10\pi V$
2. 5V
3. $(5/\pi)V$
4. $(5/2\pi)V$

Options :

686340152669. 1

686340152670. 2

686340152671. 3

686340152672. 4

Question Number : 68 Question Id : 68634038655 Question Type : MCQ Option Shuffling : No 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 Op-amp की द्रुत घूर्णन दर $5V/\mu s$ है। संभावित अधिकतम sine तरंग निर्गत वोल्टेज, 1MHz आवृत्ति पर होगी -

1. $10\pi V$
2. 5V
3. $(5/\pi)V$
4. $(5/2\pi)V$

Options :

- 686340152669. 1
- 686340152670. 2
- 686340152671. 3
- 686340152672. 4

Question Number : 69 Question Id : 68634038656 Question Type : MCQ Option Shuffling : No 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 fixed-bias common-emitter Circuit,

- A. Maintaining I_B constant will not provide operating-point stability as β changes.
- B. I_B should not be allowed to change as to maintain V_{CB} and I_C constant as β changes.
- C. The reverse saturation current I_{co} doubles for every 10°C rise in temperature.
- D. The value of stability factor $S=(1+\beta)$
- E. The circuit is highly unstable

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

Options :

- 686340152673. 1
- 686340152674. 2
- 686340152675. 3
- 686340152676. 4

Question Number : 69 Question Id : 68634038656 Question Type : MCQ Option Shuffling : No 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 स्थिर बायस उभयनिष्ठ उत्सर्जक परिपथ में,

- A. I_B को स्थिर बनाए रखने पर, β के परिवर्तन से, प्रचालन बिंदु स्थायित्व नहीं प्रदान होगा।
- B. I_B को परिवर्तन की अनुमति, V_{CE} और I_C को β के परिवर्तन होने पर, स्थिर बनाए
- C. पश्च संतृप्ति धारा I_{co} का मान हर $10^\circ C$ ताप बढ़ाने से दुगना हो जाता है।
- D. स्थायीकरण गुणांक का मान $S=(1+\beta)$ है
- E. परिपथ बहुत अधिक अस्थायी है

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

Options :

- 686340152673. 1
- 686340152674. 2
- 686340152675. 3
- 686340152676. 4

Question Number : 70 Question Id : 68634038657 Question Type : MCQ Option Shuffling : No 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 Sequence components of the fault current in a system are as follows:

$$I_{\text{positive}} = j1.5 \text{ p.u}$$

$$I_{\text{negative}} = -j 0.5 \text{ p.u}$$

$$I_{\text{zero}} = -j 1 \text{ p.u}$$

The type of fault in a power system is _____

1. LG
2. LL
3. LLG
4. LLLG

Options :

- 686340152677. 1
- 686340152678. 2
- 686340152679. 3
- 686340152680. 4

Question Number : 70 Question Id : 68634038657 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

किसी निकाय में दोष धारा के अनुक्रम घटक इस प्रकार दिए गए हैं :-

$$I_{\text{धनात्मक}} = j1.5 \text{ p.u}$$

$$I_{\text{ऋणात्मक}} = -j 0.5 \text{ p.u}$$

$$I_{\text{शून्य}} = -j 1 \text{ p.u}$$

शक्ति निकाय में कौन-से प्रकार का दोष है?

1. LG
2. LL
3. LLG
4. LLLG

Options :

686340152677. 1
686340152678. 2
686340152679. 3
686340152680. 4

Question Number : 71 Question Id : 68634038658 Question Type : MCQ Option Shuffling : No 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 (Type of Device)		LIST II (Characteristics/ Application)	
A.	GTO	I.	Triggering Circuit
B.	UJT	II.	Turn off by negative pulse rate
C.	TRIAC	III.	High Speed Switching
D.	MOSFET	IV.	Bidirectional Switching

Choose the correct answer from the options given below:

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

Options :

686340152681. 1
686340152682. 2
686340152683. 3
686340152684. 4

Question Number : 71 Question Id : 68634038658 Question Type : MCQ Option Shuffling : No 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 युक्ति का प्रकार	सूची II विशेषताएं/उपयोग
A. GTO	I. प्रवर्तन (ट्रिगरन) परिपथ
B. UJT	II. ऋणात्मक स्पंद गेट द्वारा बंद करना
C. TRIAC	III. उच्च चाल स्विचन
D. MOSFET	IV. द्विदिशिय स्विचन

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

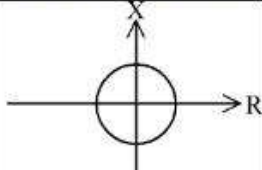
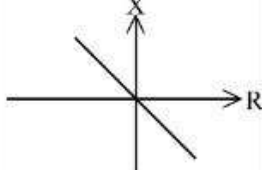
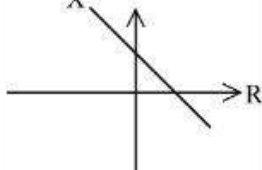
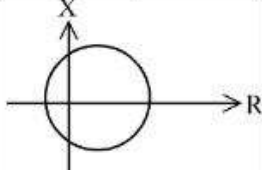
Options :

686340152681. 1
686340152682. 2
686340152683. 3
686340152684. 4

Question Number : 72 Question Id : 68634038659 Question Type : MCQ Option Shuffling : No 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 (Type of relay)		LIST II (characteristics)	
A.	Mho relay	I.	
B.	Plain Impedance Relay	II.	
C.	Directional relay	III.	
D.	Angle Impedance Relay	IV.	

Choose the correct answer from the options given below:

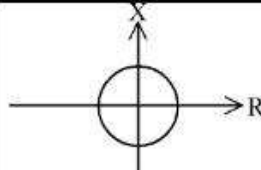
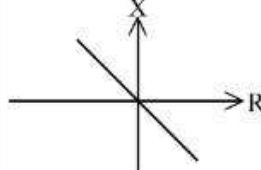
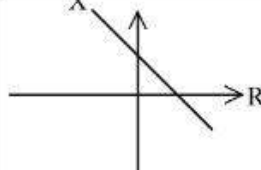
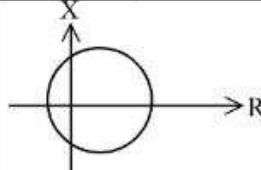
1. A-III, B-IV, C-II, D-I
2. A-IV, B-I, C-II, D-III
3. A-III, B-I, C-II, D-IV
4. A-IV, B-II, C-I, D-III

Options :

686340152685. 1
 686340152686. 2
 686340152687. 3
 686340152688. 4

Question Number : 72 Question Id : 68634038659 Question Type : MCQ Option Shuffling : No 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 (प्रतिसारण के प्रकार)		LIST II (विशेषताएं)	
A.	(Mho) महो प्रतिसारण	I.	
B.	सरल (साधारण) प्रतिबाधा प्रतिसारण	II.	
C.	दिशिक प्रतिसारण	III.	
D.	कोणीय प्रतिबाधा प्रतिसारण	IV.	

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

686340152685. 1
 686340152686. 2
 686340152687. 3
 686340152688. 4

Question Number : 73 Question Id : 68634038660 Question Type : MCQ Option Shuffling : No 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 incremental cost characteristics of two generators delivering a total load of 200MW are as follows.

$$df_1/dp_1 = 2.0 + 0.01 P_1, \quad df_2/dp_2 = 1.6 + 0.02P_2$$

What should be the values of P_1 and P_2 for economical operations?

1. $P_1=P_2 = 100$ W
2. $P_1=80$ MW, $P_2=120$ MW
3. $P_1=200$ MW, $P_2 = 0$ MW
4. $P_1=120$ MW, $P_2=80$ MV

Options :

686340152689. 1
686340152690. 2
686340152691. 3
686340152692. 4

Question Number : 73 Question Id : 68634038660 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

दो जनित्र, जो 200MW का कुल लोड प्रदान कर रहे हैं की वार्धिक मूल्य विशेषताएं दी गई हैं

$$df_1/dp_1 = 2.0 + 0.01 P_1, \quad df_2/dp_2 = 1.6 + 0.02P_2$$

तो मितव्ययी प्रचालन के लिए P_1 और P_2 का मान क्या होगा?

1. $P_1=P_2 = 100$ W
2. $P_1=80$ MW, $P_2=120$ MW
3. $P_1=200$ MW, $P_2 = 0$ MW
4. $P_1=120$ MW, $P_2=80$ MV

Options :

686340152689. 1
686340152690. 2
686340152691. 3
686340152692. 4

Question Number : 74 Question Id : 68634038661 Question Type : MCQ Option Shuffling : No 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 bus admittance matrix of a power system is given as.

$$\begin{array}{c} \begin{array}{ccc} & 1 & 2 & 3 \\ 1 & \left[\begin{array}{ccc} -j50 & +j10 & +j5 \\ +j10 & -j30 & +j10 \\ +j5 & +j10 & -j25 \end{array} \right] \\ 2 \\ 3 \end{array} \end{array}$$

The impedance of line between bus 2 and bus 3 will be equal to _____

1. $-j0.1$
2. $+j0.2$
3. $-j0.2$
4. $+j0.1$

Options :

686340152693. 1
686340152694. 2
686340152695. 3
686340152696. 4

Question Number : 74 Question Id : 68634038661 Question Type : MCQ Option Shuffling : No 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 शक्तिशाली निकाय (तंत्र) का, बस प्रवेश्यता आव्यूह दिया गया है :-

$$\begin{array}{c} \begin{array}{ccc} & 1 & 2 & 3 \\ 1 & \left[\begin{array}{ccc} -j50 & +j10 & +j5 \\ +j10 & -j30 & +j10 \\ +j5 & +j10 & -j25 \end{array} \right] \\ 2 \\ 3 \end{array} \end{array}$$

बस 2 और बस 3 के बीच की लाइन की प्रतिबाधा किसके बराबर होगी?

1. $-j0.1$
2. $+j0.2$
3. $-j0.2$
4. $+j0.1$

Options :

686340152693. 1
686340152694. 2
686340152695. 3
686340152696. 4

Question Number : 75 Question Id : 68634038662 Question Type : MCQ Option Shuffling : No 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 buck regulator has a input voltage of 16V and the required output voltage is 4V.
What is the duty cycle of the regulator?

1. $\frac{1}{16}$

2. $\frac{1}{8}$

3. $\frac{1}{4}$

4. $\frac{3}{4}$

Options :

686340152697. 1

686340152698. 2

686340152699. 3

686340152700. 4

Question Number : 75 Question Id : 68634038662 Question Type : MCQ Option Shuffling : No 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 बक (आधारक) नियंत्रक की निवेश वोल्टता 16 V है और आवश्यक निर्गत वोल्टता 4 V है तो नियंत्रक का उपयोगिता अनुपात क्या होगा।

1. $\frac{1}{16}$

2. $\frac{1}{8}$

3. $\frac{1}{4}$

4. $\frac{3}{4}$

Options :

686340152697. 1

686340152698. 2

686340152699. 3

686340152700. 4

Question Number : 76 Question Id : 68634038663 Question Type : MCQ Option Shuffling : No 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 classification of transmission lines (T.L) as short, Medium & Long T.L is based upon _____

1. Nominal Voltage of the line
2. Physical length of the line
3. Wave length of the line
4. Power Transmitted over the line

Options :

- 686340152701. 1
- 686340152702. 2
- 686340152703. 3
- 686340152704. 4

Question Number : 76 Question Id : 68634038663 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

संचरण लाइन का वर्गीकरण जैसे लघु, मध्यम और दीर्घ किस पर आधारित है?

1. लाइन की नामीय वोल्टता
2. लाइन की भौतिक लंबाई
3. लाइन की तरंगदैर्घ्य
4. लाइन पर शक्ति का संचरण

Options :

- 686340152701. 1
- 686340152702. 2
- 686340152703. 3
- 686340152704. 4

Question Number : 77 Question Id : 68634038664 Question Type : MCQ Option Shuffling : No 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 single pulse modulation of PWM inverter, third harmonic can be eliminated if pulse width is equal to

1. 60°
2. 30°
3. 150°
4. 120°

Options :

- 686340152705. 1
- 686340152706. 2
- 686340152707. 3
- 686340152708. 4

Question Number : 77 Question Id : 68634038664 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

ए PWM प्रतिलोमक की एकल स्पंद माडुलम में, तीसरे हार्मोनिक को विलुप्त किया जा सकता है यदि स्पंद विस्तार _____ के बराबर है

1. 60°
2. 30°
3. 150°
4. 120°

Options :

- 686340152705. 1
- 686340152706. 2
- 686340152707. 3
- 686340152708. 4

Question Number : 78 Question Id : 68634038665 Question Type : MCQ Option Shuffling : No 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 400 KV Network, 360 KV is recorded at a 400KV Bus. The reactive power absorbed by stunt reactor rated for 50M VAR, 400KV connected at a BUS is

1. 61.73MVAR
2. 55.60MVAR
3. 45MVAR
4. 40.5MVAR

Options :

- 686340152709. 1
- 686340152710. 2
- 686340152711. 3
- 686340152712. 4

Question Number : 78 Question Id : 68634038665 Question Type : MCQ Option Shuffling : No 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 400 KV के परिपथ में, 400KV बस पर, 360 KV अंकित किया गया। एक शंट रिएक्टर द्वारा निर्धारित 50M VAR, 400KV जो एक BUS से संयोजित है, के लिए अवशोषित प्रतिघाती शक्ति _____ होगी

1. 61.73MVAR
2. 55.60MVAR
3. 45MVAR
4. 40.5MVAR

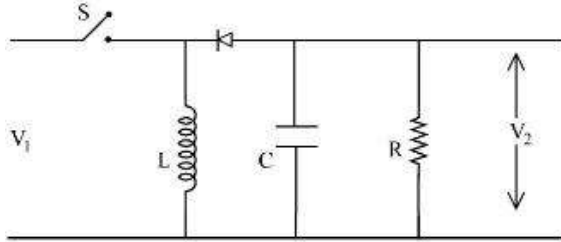
Options :

686340152709. 1
686340152710. 2
686340152711. 3
686340152712. 4

Question Number : 79 Question Id : 68634038666 Question Type : MCQ Option Shuffling : No 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 circuit shown in the figure will work as _____



1. Buck-boost converter
2. Buck converter
3. Boost converter
4. Dual converter

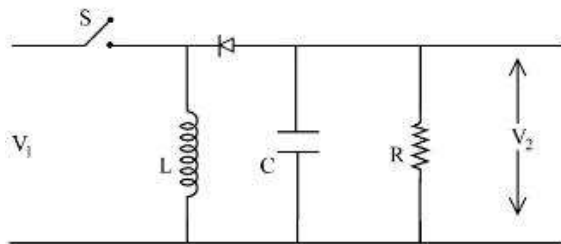
Options :

686340152713. 1
686340152714. 2
686340152715. 3
686340152716. 4

Question Number : 79 Question Id : 68634038666 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

दिया गया चित्र किसकी तरह काम करेगा?



1. बक - अभिवर्धित परिवर्तक
2. बक - परिवर्तक
3. अभिवर्धित परिवर्तक
4. द्वैत परिवर्तक

Options :

686340152713. 1

686340152714. 2

686340152715. 3

686340152716. 4

Question Number : 80 Question Id : 68634038667 Question Type : MCQ Option Shuffling : No 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 maximum output voltage of a 3-ph bridge rectifier supplied with line voltage of 440V?

1. 528V

2. 396V

3. 594V

4. 616V

Options :

686340152717. 1

686340152718. 2

686340152719. 3

686340152720. 4

Question Number : 80 Question Id : 68634038667 Question Type : MCQ Option Shuffling : No 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 3-Ph सेतु दिष्टकारी, जिसे 440V की लाइन वोल्टता प्रदान की जाती है, कि अधिकतम निर्गम वोल्टता क्या होगी?

1. 528V

2. 396V

3. 594V

4. 616V

Options :

686340152717. 1

686340152718. 2

686340152719. 3

686340152720. 4

Question Number : 81 Question Id : 68634038668 Question Type : MCQ Option Shuffling : No 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.	Voltage Stability	I.	Power system stabilizer
B.	Transient stability	II.	Damping Power
C.	Oscillatory instability	III.	Angle stability
D.	Study-state dynamics	IV.	Reactive power

Choose the correct answer from the options given below:

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

Options :

686340152721. 1
686340152722. 2
686340152723. 3
686340152724. 4

Question Number : 81 Question Id : 68634038668 Question Type : MCQ Option Shuffling : No 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.	वोल्टता स्थायित्व	I.	शक्ति निकाय स्थायीकारी
B.	क्षणिक स्थायित्व	II.	अवमंदन शक्ति
C.	दोलित अस्थायित्व	III.	कोणीय स्थायित्व
D.	स्थायी अवस्था गतिक	IV.	अभिक्रियाशील शक्ति

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

686340152721. 1
686340152722. 2
686340152723. 3
686340152724. 4

Question Number : 82 Question Id : 68634038669 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

PIV of a SCR is 650V. Find out the required Voltage if the safety factor is 2.

1. 230.4 Volt
2. 232 Volt
3. 300 Volt
4. 320 Volt

Options :

686340152725. 1
686340152726. 2
686340152727. 3
686340152728. 4

Question Number : 82 Question Id : 68634038669 Question Type : MCQ Option Shuffling : No 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 SCR की PIV, 650V है। वोल्टता का मान ज्ञात कीजिए यदि सुरक्षा गुणांक 2 है।

1. 230.4 वोल्ट
2. 232 वोल्ट
3. 300 वोल्ट
4. 320 वोल्ट

Options :

686340152725. 1
686340152726. 2
686340152727. 3
686340152728. 4

Question Number : 83 Question Id : 68634038670 Question Type : MCQ Option Shuffling : No 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 fully controlled line commutated converter functions as an inverter when firing angle (α) is in the range.

1. 0° - 90°
2. 90° - 180°
3. 90° - 180° (Only when there is a suitable dc source in the load)
4. 0° - 90° (Only when there is a suitable dc source in the load)

Options :

686340152729. 1
686340152730. 2
686340152731. 3
686340152732. 4

Question Number : 83 Question Id : 68634038670 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

एक पूर्ण नियंत्रित लाइन दिक्परिवर्ती परिवर्तक, एक प्रतिलोमक की तरह कार्य करता है जब फायरिंग कोण _____ प्रसार में होता है।

1. $0^\circ-90^\circ$
2. $90^\circ-180^\circ$
3. $90^\circ-180^\circ$ (केवल तब, जब उपयुक्त DC स्रोत लोड में है)
4. $0^\circ-90^\circ$ (केवल तब, जब उपयुक्त DC स्रोत लोड में है)

Options :

686340152729. 1
686340152730. 2
686340152731. 3
686340152732. 4

Question Number : 84 Question Id : 68634038671 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Calculate the area required for Rotor to generate 4.5KW in a 5m/s. Assume a drive train efficiency of 0.85, a generator efficiency of 0.75, and an altitude of 92m

1. 265m^2
2. 132.5m^2
3. 26.5m^2
4. 13.25m^2

Options :

686340152733. 1
686340152734. 2
686340152735. 3
686340152736. 4

Question Number : 84 Question Id : 68634038671 Question Type : MCQ Option Shuffling : No 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 रोटर (घूर्णक) को, 5m/s में 4.5KW उत्पन्न करने के लिए कितने क्षेत्रफल की आवश्यकता होगी। मानो प्रतिचालन ट्रेन दक्षता 0.75 और तुंगता 92 मीटर है।

1. 265m^2
2. 132.5m^2
3. 26.5m^2
4. 13.25m^2

Options :

- 686340152733. 1
- 686340152734. 2
- 686340152735. 3
- 686340152736. 4

Question Number : 85 Question Id : 68634038672 Question Type : MCQ Option Shuffling : No 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. Higher concentration ratio increases the absorber temperature.
- B. The thermal efficiency of the power cycle decreases with an increase in absorber temperature.
- C. The thermal efficiency of the power cycle increases with an increase in absorber temperature.
- D. The higher the concentration, the lower is the temperature of absorber.
- E. The higher the concentration ratio, the higher is the temperature of absorber.

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

Options :

- 686340152737. 1
- 686340152738. 2
- 686340152739. 3
- 686340152740. 4

Question Number : 85 Question Id : 68634038672 Question Type : MCQ Option Shuffling : No 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. उच्च सांद्रता अनुपात, अवशोषक का तापमान बढ़ाता है
- B. शक्ति चक्र की तापीय दक्षता, अवशोषक के तापमान बढ़ने से, घटती है
- C. शक्ति चक्र की तापीय दक्षता, अवशोषक के तापमान बढ़ने से, बढ़ती है
- D. जितनी सांद्रता उच्च होती है, अवशोषक का तापमान उतना निम्न होता है
- E. जितना सांद्रता अनुपात उच्च होता है उतना ही अवशोषक का तापमान उच्च होता है

नीचे दिए गए विकल्पों में से सही उत्तर दीजिए :

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

Options :

- 686340152737. 1
- 686340152738. 2
- 686340152739. 3

686340152740. 4

Question Number : 86 Question Id : 68634038673 Question Type : MCQ Option Shuffling : No 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 solar photovoltaic system feeds power to a motor of 1hp at the shaft. The motor has an efficiency of 85%. Each module has 40 multi crestline Silicone solar cells arranged in 9×5 matrix? The cell is $130 \text{ mm} \times 130 \text{ mm}$ and the cell efficiency is 13%. Calculate the number of photovoltaic modules required, assuming global radiation incident to the panel as 1 kW/m^2

1. 7

2. 8

3. 9

4. 10

Options :

686340152741. 1

686340152742. 2

686340152743. 3

686340152744. 4

Question Number : 86 Question Id : 68634038673 Question Type : MCQ Option Shuffling : No 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 सौर प्रकाश वोल्टीय निकाय, एक मोटर का शाफ्ट पर, 1hp शक्ति से भरण करता है मोटर की दक्षता 85% है। हर प्रतिरूपक (मॉड्यूल) के 40 बहुक्रिस्टलाइन सिलिकॉन सौर सैल है जो 9×5 के आव्यूह में व्यवस्थित है। सेल $130 \text{ mm} \times 130 \text{ mm}$ है और सेल की दक्षता 13% है। प्रकाश वोल्टीय प्रतिरूपको की संख्या ज्ञात कीजिए यदि पैनल पर आपतित भूमंडलीय विकिरण 1 kW/m^2 है

1. 7

2. 8

3. 9

4. 10

Options :

686340152741. 1

686340152742. 2

686340152743. 3

686340152744. 4

Question Number : 87 Question Id : 68634038674 Question Type : MCQ Option Shuffling : No 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. Pyranometer measures global solar radiation received from entire hemisphere on a horizontal surface.
- B. Solarimeter can be interpreted to mean same as pyrheliometric instrument.
- C. Pyranometer produces a voltage as a function of the incident solar radiation.
- D. Pyranometre uses photovoltaic detectors.
- E. Pyranometre's spectral response is linear.

Choose the correct answer from the options given below:

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

Options :

- 686340152745. 1
- 686340152746. 2
- 686340152747. 3
- 686340152748. 4

Question Number : 87 Question Id : 68634038674 Question Type : MCQ Option Shuffling : No 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. पाइरैनोमीटर उन भूमंडलीय सौर विकिरणों को मापता है, जो वह क्षैतिज सतह पर सारे गोलार्ध से प्राप्त करता है।
- B. सौरमीटर को, बिल्कुल पाइर हैलियोमीटर उपकरण की तरह माध्य से निर्वचनित किया जाता है।
- C. पाइरैनोमीटर, वोल्टता उत्पन्न करता है जो आपतित सौर विकिरणों का फलन होता है।
- D. पाइरैनोमीटर प्रकाश वोल्टीय संसूचक का प्रयोग करता है।
- E. पाइरैनोमीटर का स्पेक्ट्रमी अभिक्रिया रैखिक होती है।

नीचे दिए गए विकल्पों में से सही उत्तर दीजिए :

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

Options :

- 686340152745. 1
- 686340152746. 2
- 686340152747. 3
- 686340152748. 4

Question Number : 88 Question Id : 68634038675 Question Type : MCQ Option Shuffling : No 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.	Water heating system	I.	Used in absorption type air-conditions
B.	Leak of smaller consequences	II.	Freezing problem in collector
C.	Heating system with storage tank	III.	Forced circulation
D.	For large quantity of hot water	IV.	Air heating system

Choose the correct answer from the options given below:

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

Options :

686340152749. 1
686340152750. 2
686340152751. 3
686340152752. 4

Question Number : 88 Question Id : 68634038675 Question Type : MCQ Option Shuffling : No 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.	जल तापन प्रणाली	I.	अवशोषण प्रकार के एयर कंडीशनर में उपयोग
B.	छोटे परिणामों का रिसाव	II.	संग्राही में जमने की समस्या
C.	तापन प्रणाली भंडारण टैंक के साथ	III.	प्रणोदित परिसंचरण
D.	गर्म पानी की अधिक मात्रा	IV.	वायु तापन प्रणाली

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

686340152749. 1
686340152750. 2
686340152751. 3
686340152752. 4

Question Number : 89 Question Id : 68634038676 Question Type : MCQ Option Shuffling : No 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.	Vertical axis wind turbines	I.	Higher wind energy conserved efficiency
B.	Variable speed wind turbines	II.	Lower wind energy conservation
C.	Horizontal axis wind turbines	III.	High mechanical stress
D.	Fixed speed wind turbines	IV.	High-energy conservation efficiency

Choose the correct answer from the options given below:

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

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

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

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

Options :

686340152753. 1

686340152754. 2

686340152755. 3

686340152756. 4

Question Number : 89 Question Id : 68634038676 Question Type : MCQ Option Shuffling : No 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.	ऊर्ध्वाधर अक्षीय पवन टरबाइन	I.	उच्च पवन ऊर्जा रूपांतरण दक्षता
B.	चर चाल पवन टरबाइन	II.	निम्न पवन ऊर्जा रूपांतरण दक्षता
C.	क्षैतिज अक्षीय पवन टरबाइन	III.	उच्च यांत्रिक प्रतिबल
D.	स्थिर चाल पवन टरबाइन	IV.	उच्च ऊर्जा रूपांतरण दक्षता

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

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

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

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

Options :

686340152753. 1

686340152754. 2

686340152755. 3

Question Number : 90 Question Id : 68634038677 Question Type : MCQ Option Shuffling : No 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.	Bio-diesel	I.	needs low temperature and high pressure
B.	Pyrolysis	II.	an upgraded vegetables oil
C.	Liquifaction of bio mass	III.	direct combustion of biomass
D.	Incimeration	IV.	biomass into more useful products.

Choose the correct answer from the options given below:

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

Options :

686340152757. 1
686340152758. 2
686340152759. 3
686340152760. 4

Question Number : 90 Question Id : 68634038677 Question Type : MCQ Option Shuffling : No 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.	जैव-डीजल	I.	कम ताप और उच्च दाब की आवश्यकता होती है
B.	उत्ताप-अपघटन	II.	एक उच्चकृत वनस्पति तेल
C.	जैव द्रव्यमान का द्रवण	III.	जैव द्रव्यमान का प्रत्यक्ष दहन
D.	भस्मीकरण	IV.	जैव द्रव्यमान को अधिक उपयोगी उत्पादों में

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

686340152757. 1
686340152758. 2

686340152759. 3

686340152760. 4

Question Number : 91 Question Id : 68634038678 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Factors affecting the performance of solar collector are:

- A. Selective surfaces, spacing, dust on top cover.
- B. Outlet fluid temperature, Spacing, incident solar flux.
- C. Number of glass covers, incident solar flux
- D. Spacing between glass covers, their numbers (glass cover)
- E. Inlet fluid temperatures

1. A, C, D Only

2. A, C, E Only

3. B, C, E Only

4. A, B, C, D Only

Options :

686340152761. 1

686340152762. 2

686340152763. 3

686340152764. 4

Question Number : 91 Question Id : 68634038678 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

सौर संग्राही के प्रदर्शन को प्रभावित करने वाले कारक हैं :-

- A. वरणात्मक सतह, अंतराल और शीर्ष आवरण पर धूल
- B. निर्गम द्रव तापमान, अंतराल, आपतित सौर फ्लक्स (अभिवाह)
- C. ग्लास कवर की संख्या, घटना सौर फ्लू
- D. ग्लास कवरों (आवरणों) के बीच अंतराल और उनकी संख्या (ग्लास कवरों की)
- E. निवेशिका द्रव तापमान

नीचे दिए गए विकल्पों में से सही उत्तर दीजिए :

1. केवल A, C, D

2. केवल A, C, E

3. केवल B, C, E

4. केवल A, B, C, D

Options :

686340152761. 1

686340152762. 2

686340152763. 3

686340152764. 4

Question Number : 92 Question Id : 68634038679 Question Type : MCQ Option Shuffling : No 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: Kinetic energy of the wind is proportional to (velocity).

Statement II: Kinetic energy of the wind is proportional to area of sweep of wind turbine and also on Air density.

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 :

686340152765. 1
686340152766. 2
686340152767. 3
686340152768. 4

Question Number : 92 Question Id : 68634038679 Question Type : MCQ Option Shuffling : No 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: पवन की गतिज ऊर्जा उसके (वेग)³ पर निर्भर करती है।

कथन II: पवन की गतिज ऊर्जा, पवन टरबाइन द्वारा प्रसर्प क्षेत्रफल और हवा के घनत्व पर भी निर्भर करती है।

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

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

Options :

686340152765. 1
686340152766. 2
686340152767. 3
686340152768. 4

Question Number : 93 Question Id : 68634038680 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

International organization which coordinates and unify the petroleum policies is:

1. United Nations Economic Commission
2. United Nations Industrial Commission
3. SAARC
4. OPEC

Options :

686340152769. 1
686340152770. 2
686340152771. 3
686340152772. 4

Question Number : 93 Question Id : 68634038680 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

अन्तरराष्ट्रीय संगठन जो, पेट्रोलियम की नीतियों का समन्वय और एकताकरण करता है वह है

1. यूनाइटेड नेशन्स इकॉनॉमिक कमीशन
2. यूनाइटेड नेशन्स इन्डस्ट्रियल कमीशन
3. SAARC
4. OPEC

Options :

686340152769. 1
686340152770. 2
686340152771. 3
686340152772. 4

Question Number : 94 Question Id : 68634038681 Question Type : MCQ Option Shuffling : No 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 area is preferred for solar plants?

1. Coastal areas
2. Hot arid zones
3. Mountain tops
4. High rainfall zones

Options :

686340152773. 1
686340152774. 2
686340152775. 3

686340152776. 4

Question Number : 94 Question Id : 68634038681 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

सौर प्लांट के लिए नीचे दिए गए कौन-से क्षेत्रों (प्रदेशों) को वरीयता दी जाती है?

1. तटीय क्षेत्र
2. तप्त शुष्क प्रदेश
3. पर्वतीय चोटी
4. उच्च वर्षा क्षेत्र (प्रदेश)

Options :

686340152773. 1

686340152774. 2

686340152775. 3

686340152776. 4

Question Number : 95 Question Id : 68634038682 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Reason for acid rain is the presence of the following gas in the atmosphere.

1. CH₄
2. H₂
3. NH₃
4. H₂S

Options :

686340152777. 1

686340152778. 2

686340152779. 3

686340152780. 4

Question Number : 95 Question Id : 68634038682 Question Type : MCQ Option Shuffling : No 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, वायुमंडल में किस गैस के दाब के कारण अम्लीय वर्षा होती है

1. CH₄
2. H₂
3. NH₃
4. H₂S

Options :

686340152777. 1
686340152778. 2
686340152779. 3
686340152780. 4

**Question Number : 96 Question Id : 68634038683 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 4 Wrong Marks : 1

At present, the percentage of electricity comes from fossil fuels in India is around

1. 57
2. 37
3. 77
4. 87

Options :

686340152781. 1
686340152782. 2
686340152783. 3
686340152784. 4

**Question Number : 96 Question Id : 68634038683 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 4 Wrong Marks : 1

आजकल कितने प्रतिशत के लगभग, भारत में विद्युत, जीवाश्मी, ईंधन, से आती हैं?

1. 57
2. 37
3. 77
4. 87

Options :

686340152781. 1
686340152782. 2
686340152783. 3
686340152784. 4

**Question Number : 97 Question Id : 68634038684 Question Type : MCQ Option Shuffling : No 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 terms of total primary energy consumption. At present India stands at what position ?

1. First
2. Second
3. Third
4. Fourth

Options :

686340152785. 1
686340152786. 2
686340152787. 3
686340152788. 4

Question Number : 97 Question Id : 68634038684 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

कुल प्राथमिक ऊर्जा उपभोग के शब्दों में भारत का वर्तमान स्थान क्या है?

1. पहला
2. दूसरा
3. तीसरा
4. चौथा

Options :

686340152785. 1
686340152786. 2
686340152787. 3
686340152788. 4

Question Number : 98 Question Id : 68634038685 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

One of the roles of ozone layer is to protect earth from

1. Sound Waves
2. UV Radiations
3. IR Radiations
4. Greenhouse effect

Options :

686340152789. 1
686340152790. 2
686340152791. 3
686340152792. 4

Question Number : 98 Question Id : 68634038685 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

ओज़ोन परत की एक भूमिका पृथ्वी की सुरक्षा _____ से हैं।

1. ध्वनि तरंगें
2. UV विकिरणें
3. IR विकिरणें
4. ग्रीन हाउस (पौधा घर) प्रभाव

Options :

686340152789. 1
686340152790. 2
686340152791. 3
686340152792. 4

Question Number : 99 Question Id : 68634038686 Question Type : MCQ Option Shuffling : No 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 main constituents of Acid rain are

1. Nitric acid and acetic acid
2. Nitric acid and sulfuric acid
3. Sulfuric acid and acetic acid
4. Acetic acid and hydrochloric acid

Options :

686340152793. 1
686340152794. 2
686340152795. 3
686340152796. 4

Question Number : 99 Question Id : 68634038686 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

अम्लीय वर्षा के मुख्य घटक है :-

1. नाइट्रिक अम्ल और एसिटिक अम्ल
2. नाइट्रिक अम्ल और सल्फ्यूरिक अम्ल
3. सल्फ्यूरिक अम्ल और एसिटिक अम्ल
4. एसिटिक अम्ल और हाइड्रोक्लोरिक अम्ल

Options :

686340152793. 1
686340152794. 2

686340152795. 3

686340152796. 4

Question Number : 100 Question Id : 68634038687 Question Type : MCQ Option Shuffling : No 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.	Kakrapar Atomic Power station	I.	Uttar pradesh
B.	Narora Atomic Power Station	II.	Karnataka
C.	Kaiga Nuclear Power Plant	III.	Tamilnadu
D.	Kudankulam Nuclear Power Plant	IV.	Gujrat

Choose the correct answer from the options given below:

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

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

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

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

Options :

686340152797. 1

686340152798. 2

686340152799. 3

686340152800. 4

Question Number : 100 Question Id : 68634038687 Question Type : MCQ Option Shuffling : No 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.	काकरापार नाभिकीय शक्ति संयंत्र	I.	उत्तर प्रदेश
B.	नरोरा नाभिकीय शक्ति संयंत्र	II.	कर्नाटक
C.	कैग नाभिकीय शक्ति संयंत्र	III.	तमिलनाडु
D.	कुडनकुलम नाभिकीय शक्ति संयंत्र	IV.	गुजरात

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

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

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

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

Options :

686340152797. 1

686340152798. 2

686340152799. 3

686340152800.4