

National Testing Agency

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| Question Paper Name : | Electrical Power and Energy Engineering Eng 11th June 2023 Shift 2 |
| Subject Name : | Electrical Power and Energy Engineering Eng |
| Creation Date : | 2023-06-11 20:39:57 |
| Duration : | 120 |
| Total Marks : | 400 |
| Display Marks: | Yes |

Electrical Power and Energy Engineering

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|--------------------------------------|-----------|
| Group Number : | 1 |
| Group Id : | 686340130 |
| 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 : | 686340259 |
| 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 : | 686340426 |
| Question Shuffling Allowed : | No |
| Is Section Default? : | null |

Question Id : 68634013062 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

Beijing: As China tries to slow its demographic decline , women like Chen Luojin could be part of the solution. The divorced 33-years-old lives in Chengdu , capital of the southwestern Sichuan province, which legalised registration of children by unmarried women in february , something China is considering implementing nationwide to address record low birth rates .

The changes mean unmarried woman can take paid maternity leave and receive child subsidies previously only available to married couples . Crucially ,Chen could access invitro fertility (IVF) treatment legally in a private clinic . She is now 10 weeks pregnant."Becoming a single parent is not for everyone but I am happy with the decision ,"said Chen, who works in logistics ."Equally, getting married or not is for each individual to decide . We have liberalised the policies here and I know a lot of single women are doing IVF."

Concerned about China's first population drop in six decades and its rapid ageing , the government's political advisers proposed in March that single and unmarried women should have access to egg freezing and IVF treatment .But leaders haven't commented publicly on the recommendations.

Liberalising IVF nationwide could unleash more demand for fertility treatment in what is already the world's biggest market ,straining limited fertility services . Some investors in the industry see an opportunity to expand .

" If China changes their policy to allow single women to have children ,this can result in an increase of IVF demand ,"said Yve Lyppens , director of business development for Asia Pacific at INVO Bioscience ,which is awaiting regulatory approval to launch its IVF technology in China after signing a distribution agreement with Guangzhou-based Onesky Holdings last year .

Shanghai and the southern Guangdong province have also permitted unmarried women to register their children but IVF services for single women remain banned

Sub questions

Question Number : 1 Question Id : 68634013063 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Leberalising IVF means : -

1. Popularising IVF treatment.
2. Imposing fresh restrictions on IVF treatment .
3. Removing stringent conditions and allowing access to IVF treatment .
4. People who availed IVF treatment to be set free from jail.

Options :

- 68634051601. 1
- 68634051602. 2
- 68634051603. 3
- 68634051604. 4

Question Number : 2 Question Id : 68634013064 Question Type : MCQ Option Shuffling : No 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 IVF treatment is legalised as per the passage who would get paid maternity leave and child subsidies

1. Married and unmarried women
2. Only unmarried women
3. Only married women
4. Single women who became single parent through IVF treatment

Options :

- 68634051605. 1
- 68634051606. 2
- 68634051607. 3
- 68634051608. 4

Question Number : 3 Question Id : 68634013065 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The correct statement given is

1. Chengdu is the capital of sichuan province.
2. China has age old policies to allow single woman to have children
3. China is suffering from demographic decline.
4. Chen works in logics company

Options :

- 68634051609. 1
- 68634051610. 2
- 68634051611. 3
- 68634051612. 4

Question Number : 4 Question Id : 68634013066 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Antonym of the word liberal is :-

1. berserk
2. berth
3. bento
4. bigot

Options :

- 68634051613. 1
- 68634051614. 2
- 68634051615. 3
- 68634051616. 4

Question Number : 5 Question Id : 68634013067 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

According to this paragraph who is the Director of Business Development for Asia Pacific at INVO bioscience ?

1. Yev Lypeens
2. Yve Lyppens
3. Yiv Lyappen
4. Yve Lyippen

Options :

68634051617. 1

68634051618. 2

68634051619. 3

68634051620. 4

Question Id : 68634013062 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

Beijing: As China tries to slow its demographic decline , women like Chen Luojin could be part of the solution. The divorced 33-years-old lives in Chengdu , capital of the southwestern Sichuan province, which legalised registration of children by unmarried women in february , something China is considering implementing nationwide to address record low birth rates .

The changes mean unmarried woman can take paid maternity leave and receive child subsidies previously only available to married couples . Crucially ,Chen could access invitro fertility (IVF) treatment legally in a private clinic . She is now 10 weeks pregnant."Becoming a single parent is not for everyone but I am happy with the decision ,"said Chen, who works in logistics ."Equally, getting married or not is for each individual to decide . We have liberalised the policies here and I know a lot of single women are doing IVF."

Concerned about China's first population drop in six decades and its rapid ageing , the government's political advisers proposed in March that single and unmarried women should have access to egg freezing and IVF treatment .But leaders haven't commented publicly on the recommendations.

Liberalising IVF nationwide could unleash more demand for fertility treatment in what is already the world's biggest market ,straining limited fertility services . Some investors in the industry see an opportunity to expand .

" If China changes their policy to allow single women to have children ,this can result in an increase of IVF demand ,"said Yve Lyppens , director of business development for Asia Pacific at INVO Bioscience ,which is awaiting regulatory approval to launch its IVF technology in China after signing a distribution agreement with Guangzhou-based Onesky Holdings last year .

Shanghai and the southern Guangdong province have also permitted unmarried women to register their children but IVF services for single women remain banned

Sub questions

Question Number : 1 Question Id : 68634013063 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Leberalising IVF means : -

1. Popularising IVF treatment.
2. Imposing fresh restrictions on IVF treatment .
3. Removing stingent conditions and allowing access to IVF treatment .
4. People who availed IVF treatment to be set free from jail.

Options :

- 68634051601. 1
- 68634051602. 2
- 68634051603. 3
- 68634051604. 4

Question Number : 2 Question Id : 68634013064 Question Type : MCQ Option Shuffling : No 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 IVF treatment is legalised as per the passage who would get paid maternity leave and child subsidies

1. Married and unmarried women
2. Only unmarried women
3. Only married women
4. Single women who became single parent through IVF treatment

Options :

- 68634051605. 1
- 68634051606. 2
- 68634051607. 3
- 68634051608. 4

Question Number : 3 Question Id : 68634013065 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

The correct statement given is

1. Chengdu is the capital of sichuan province.
2. China has age old policies to allow single woman to have children
3. China is suffering from demographic decline.
4. Chen works in logics company

Options :

- 68634051609. 1
- 68634051610. 2

68634051611.3

68634051612.4

Question Number : 4 Question Id : 68634013066 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Antonym of the word liberal is :-

1. berserk
2. berth
3. bento
4. bigot

Options :

68634051613.1

68634051614.2

68634051615.3

68634051616.4

Question Number : 5 Question Id : 68634013067 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

According to this paragraph who is the Director of Business Development for Asia pacific at INVO bioscience ?

1. Yev Lypeens
2. Yve Lyppens
3. Yiv Lyappen
4. Yve Lyippen

Options :

68634051617.1

68634051618.2

68634051619.3

68634051620.4

Sub-Section Number :

2

Sub-Section Id :

686340427

Question Shuffling Allowed :

Yes

Is Section Default? :

null

Question Number : 6 Question Id : 68634013068 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Choose the correctly spelt word from the given options:

1. TIMORIGENIC
2. TUMORIGENIC
3. TOMORGENIC
4. TUMARGENIC

Options :

- 68634051621. 1
- 68634051622. 2
- 68634051623. 3
- 68634051624. 4

Question Number : 6 Question Id : 68634013068 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Choose the correctly spelt word from the given options:

1. TIMORIGENIC
2. TUMORIGENIC
3. TOMORGENIC
4. TUMARGENIC

Options :

- 68634051621. 1
- 68634051622. 2
- 68634051623. 3
- 68634051624. 4

Question Number : 7 Question Id : 68634013069 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Transform the assertive sentence to exclamatory -

The falcon skims the air elegantly.

1. Bravo! The falcon is skimming
2. Wow! The falcon skims
3. The falcon skims elegantly in the air!
4. How elegantly the falcon skims the air!

Options :

- 68634051625. 1
- 68634051626. 2
- 68634051627. 3

68634051628. 4

Question Number : 7 Question Id : 68634013069 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Transform the assertive sentence to exclamatory -

The falcon skims the air elegantly.

1. Bravo! The falcon is skimming
2. Wow! The falcon skims
3. The falcon skims elegantly in the air!
4. How elegantly the falcon skims the air!

Options :

- 68634051625. 1
- 68634051626. 2
- 68634051627. 3
- 68634051628. 4

Question Number : 8 Question Id : 68634013070 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Synonym of the word ' TRANSCEND ' is:

1. Lower
2. Climb
3. Cross
4. Energise

Options :

- 68634051629. 1
- 68634051630. 2
- 68634051631. 3
- 68634051632. 4

Question Number : 8 Question Id : 68634013070 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Synonym of the word ' TRANSCEND ' is:

1. Lower
2. Climb
3. Cross
4. Energise

Options :

- 68634051629. 1
- 68634051630. 2
- 68634051631. 3
- 68634051632. 4

Question Number : 9 Question Id : 68634013071 Question Type : MCQ Option Shuffling : No 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 grown male horse kept for breeding' is called:

1. Stride
2. Stooge
3. Stable
4. Stallion

Options :

- 68634051633. 1
- 68634051634. 2
- 68634051635. 3
- 68634051636. 4

Question Number : 9 Question Id : 68634013071 Question Type : MCQ Option Shuffling : No 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 grown male horse kept for breeding' is called:

1. Stride
2. Stooge
3. Stable
4. Stallion

Options :

- 68634051633. 1
- 68634051634. 2
- 68634051635. 3
- 68634051636. 4

Question Number : 10 Question Id : 68634013072 Question Type : MCQ Option Shuffling : No 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.

A high school teacher is to face trail ___ France after setting fire _____ his pupils English exam papers to protest _____ the state education system.

1. in, of, to
2. in, with, for
3. in, to, at
4. in, on, before

Options :

- 68634051637. 1
- 68634051638. 2
- 68634051639. 3
- 68634051640. 4

Question Number : 10 Question Id : 68634013072 Question Type : MCQ Option Shuffling : No 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.

A high school teacher is to face trail ___ France after setting fire _____ his pupils English exam papers to protest _____ the state education system.

1. in, of, to
2. in, with, for
3. in, to, at
4. in, on, before

Options :

- 68634051637. 1
- 68634051638. 2
- 68634051639. 3
- 68634051640. 4

Question Number : 11 Question Id : 68634013073 Question Type : MCQ Option Shuffling : No 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 age of a boy and a girl is 30 years. The ratio of their ages is 5:7. Ages of the boy and girl respectively:

1. 30 years, 25 years
2. 25 years, 35 years
3. 25 years, 40 years
4. 30 years , 42 years

Options :

68634051641. 1
68634051642. 2
68634051643. 3
68634051644. 4

Question Number : 11 Question Id : 68634013073 Question Type : MCQ Option Shuffling : No 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 age of a boy and a girl is 30 years. The ratio of their ages is 5:7. Ages of the boy and girl respectively:

1. 30 years, 25 years
2. 25 years, 35 years
3. 25 years, 40 years
4. 30 years , 42 years

Options :

68634051641. 1
68634051642. 2
68634051643. 3
68634051644. 4

Question Number : 12 Question Id : 68634013074 Question Type : MCQ Option Shuffling : No 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 article is marked for ₹ 200. A shopkeeper earns 25% profit even after allowing $12\frac{1}{2}\%$ discount on it. What is the cost price of the article (in ₹)?

1. 180
2. 165
3. 140
4. 112.50

Options :

68634051645. 1

68634051646. 2
68634051647. 3
68634051648. 4

Question Number : 12 Question Id : 68634013074 Question Type : MCQ Option Shuffling : No 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 article is marked for ₹ 200. A shopkeeper earns 25% profit even after allowing $12\frac{1}{2}\%$ discount on it. What is the cost price of the article (in ₹)?

1. 180
2. 165
3. 140
4. 112.50

Options :

68634051645. 1
68634051646. 2
68634051647. 3
68634051648. 4

Question Number : 13 Question Id : 68634013075 Question Type : MCQ Option Shuffling : No 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 how many years will a sum of ₹ 800 at 10% per annum compounded semi-annually become ₹ 926.10?

1. $1\frac{1}{3}$ years
2. $1\frac{1}{2}$ years
3. $2\frac{1}{3}$ years
4. 3 years

Options :

68634051649. 1
68634051650. 2
68634051651. 3
68634051652. 4

Question Number : 13 Question Id : 68634013075 Question Type : MCQ Option Shuffling : No 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 how many years will a sum of ₹ 800 at 10% per annum compounded semi-annually become ₹ 926.10?

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

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

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

4. 3 years

Options :

68634051649. 1

68634051650. 2

68634051651. 3

68634051652. 4

Question Number : 14 Question Id : 68634013076 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Five men working 8 hours per day take 6 days to do a work. How many days will 12 men take to do the same work if they work for 10 hours per day?

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

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

3. 3

4. 2

Options :

68634051653. 1

68634051654. 2

68634051655. 3

68634051656. 4

Question Number : 14 Question Id : 68634013076 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Five men working 8 hours per day take 6 days to do a work. How many days will 12 men take to do the same work if they work for 10 hours per day?

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

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

3. 3

4. 2

Options :

68634051653. 1

68634051654. 2

68634051655. 3

68634051656. 4

Question Number : 15 Question Id : 68634013077 Question Type : MCQ Option Shuffling : No 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 height of a room is 40% of semi-perimeter of the floor. Akshay wanted to put wall paper on the walls of his room. It cost ₹ 5,200 to put 50 cm wide wall paper at the rate of ₹40/m leaving an area of 15 m^2 for doors and windows . Height of room (in m) is:

1. 3.6

2. 3.8

3. 4

4. 3

Options :

68634051657. 1

68634051658. 2

68634051659. 3

68634051660. 4

Question Number : 15 Question Id : 68634013077 Question Type : MCQ Option Shuffling : No 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 height of a room is 40% of semi-perimeter of the floor. Akshay wanted to put wall paper on the walls of his room. It cost ₹ 5,200 to put 50 cm wide wall paper at the rate of ₹40/m leaving an area of 15 m² for doors and windows . Height of room (in m) is:

1. 3.6
2. 3.8
3. 4
4. 3

Options :

68634051657. 1
68634051658. 2
68634051659. 3
68634051660. 4

Question Number : 16 Question Id : 68634013078 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Identify the water - image of the combination

"96FSH52"

1. 9 6 E 2 H 2 5
2. 6 9 E 2 H 2 5
3. 9 6 E 2 H 2 5
4. 6 9 E 2 H 2 5

Options :

68634051661. 1
68634051662. 2
68634051663. 3
68634051664. 4

Question Number : 16 Question Id : 68634013078 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Identify the water - image of the combination

"96FSH52"

1. 9 6 E 2 H 2 5
2. 6 9 E 2 H 2 5
3. 9 6 E 2 H 2 5
4. 6 9 E 2 H 2 5

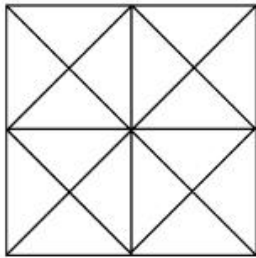
Options :

- 68634051661. 1
- 68634051662. 2
- 68634051663. 3
- 68634051664. 4

Question Number : 17 Question Id : 68634013079 Question Type : MCQ Option Shuffling : No 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 following figure find the number of triangles and squares ?



1. 44 triangles, 10 squares
2. 12 triangles, 14 squares
3. 27 triangles , 6 squares
4. 32 triangles , 12 squares

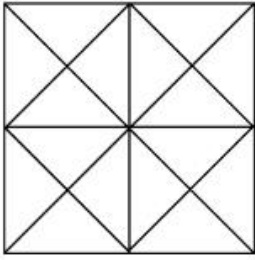
Options :

- 68634051665. 1
- 68634051666. 2
- 68634051667. 3
- 68634051668. 4

Question Number : 17 Question Id : 68634013079 Question Type : MCQ Option Shuffling : No 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 following figure find the number of triangles and squares ?



1. 44 triangles, 10 squares
2. 12 triangles, 14 squares
3. 27 triangles , 6 squares
4. 32 triangles , 12 squares

Options :

- 68634051665. 1
- 68634051666. 2
- 68634051667. 3
- 68634051668. 4

Question Number : 18 Question Id : 68634013080 Question Type : MCQ Option Shuffling : No 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 related number from the given alternatives:

$$DXH : 4 \times 8 :: M \times Q : ?$$

1. 12×17
2. 13×17
3. 12×16
4. 14×18

Options :

- 68634051669. 1
- 68634051670. 2
- 68634051671. 3
- 68634051672. 4

Question Number : 18 Question Id : 68634013080 Question Type : MCQ Option Shuffling : No 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 related number from the given alternatives:

$$DXH : 4 \times 8 :: M \times Q : ?$$

1. 12×17
2. 13×17
3. 12×16
4. 14×18

Options :

- 68634051669. 1
- 68634051670. 2
- 68634051671. 3
- 68634051672. 4

Question Number : 19 Question Id : 68634013081 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

As per the given series 9, 15, 23, 33, 45, 59 observe the series 16, (A), (B), (C), (D), (E) and by establishing the same relation find what will come in place of (D) ?

1. 46
2. 60
3. 34
4. 64

Options :

- 68634051673. 1
- 68634051674. 2
- 68634051675. 3
- 68634051676. 4

Question Number : 19 Question Id : 68634013081 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

As per the given series 9, 15, 23, 33, 45, 59 observe the series 16, (A), (B), (C), (D), (E) and by establishing the same relation find what will come in place of (D) ?

1. 46
2. 60
3. 34
4. 64

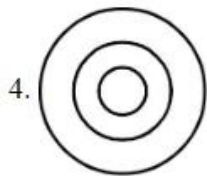
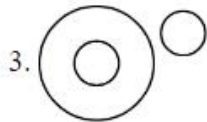
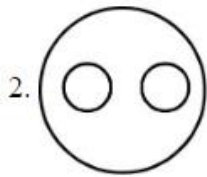
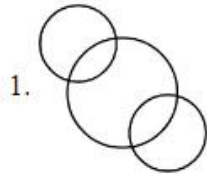
Options :

- 68634051673. 1

68634051674. 2
68634051675. 3
68634051676. 4

Question Number : 20 Question Id : 68634013082 Question Type : MCQ Option Shuffling : No 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 represents the relationship among factory, machinery and product:

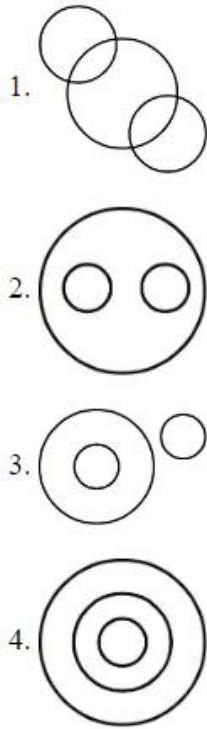


Options :

68634051677. 1
68634051678. 2
68634051679. 3
68634051680. 4

Question Number : 20 Question Id : 68634013082 Question Type : MCQ Option Shuffling : No 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 represents the relationship among factory, machinery and product:



Options :

- 68634051677. 1
- 68634051678. 2
- 68634051679. 3
- 68634051680. 4

Question Number : 21 Question Id : 68634013083 Question Type : MCQ Option Shuffling : No 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 statements which are true about Governor of a state:

- A. He is appointed by the President for five years.
- B. He should be above 45 years of age and should be an Indian citizen .
- C. Executive power of the state is vested in him.
- D. Chief minister and vice Chancellor of state university are appointed by Governor of a state.

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

Options :

- 68634051681. 1
- 68634051682. 2
- 68634051683. 3

68634051684. 4

Question Number : 21 Question Id : 68634013083 Question Type : MCQ Option Shuffling : No 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 statements which are true about Governor of a state:

- A. He is appointed by the President for five years.
- B. He should be above 45 years of age and should be an Indian citizen .
- C. Executive power of the state is vested in him.
- D. Chief minister and vice Chancellor of state university are appointed by Governor of a state.

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

Options :

- 68634051681. 1
- 68634051682. 2
- 68634051683. 3
- 68634051684. 4

Question Number : 22 Question Id : 68634013084 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Out of the following , which is the highest Indian Literacy award:

- 1. Jnanpith Award
- 2. Sahitya Academi Award
- 3. Yuva Puraskar
- 4. Booker prize

Options :

- 68634051685. 1
- 68634051686. 2
- 68634051687. 3
- 68634051688. 4

Question Number : 22 Question Id : 68634013084 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Out of the following , which is the highest Indian Literacy award:

1. Jnanpith Award
2. Sahitya Academi Award
3. Yuva Puraskar
4. Booker prize

Options :

68634051685. 1
68634051686. 2
68634051687. 3
68634051688. 4

Question Number : 23 Question Id : 68634013085 Question Type : MCQ Option Shuffling : No 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 Folk Dance | | LIST II State | |
|-------------------|-------------|---------------|----------------|
| A. | Chhau dance | I. | Maharashtra |
| B. | Lavami | II. | Bihar |
| C. | Kuchipudi | III. | Andhra Pradesh |
| D. | Bidesiya | IV. | Jharkhand |

Choose the correct answer from the options given below:

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

Options :

68634051689. 1
68634051690. 2
68634051691. 3
68634051692. 4

Question Number : 23 Question Id : 68634013085 Question Type : MCQ Option Shuffling : No 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 Folk Dance | | LIST II State | |
|-------------------|-------------|---------------|----------------|
| A. | Chhau dance | I. | Maharashtra |
| B. | Lavami | II. | Bihar |
| C. | Kuchipudi | III. | Andhra Pradesh |
| D. | Bidesiya | IV. | Jharkhand |

Choose the correct answer from the options given below:

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

Options :

- 68634051689. 1
- 68634051690. 2
- 68634051691. 3
- 68634051692. 4

Question Number : 24 Question Id : 68634013086 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Recently launched ' Bharat - NCAP ' is related to:

1. Crash safety performance of cars
2. Emission test protocols
3. Pollution control norms
4. Green fuel production

Options :

- 68634051693. 1
- 68634051694. 2
- 68634051695. 3
- 68634051696. 4

Question Number : 24 Question Id : 68634013086 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Recently launched ' Bharat - NCAP ' is related to:

1. Crash safety performance of cars
2. Emission test protocols
3. Pollution control norms
4. Green fuel production

Options :

- 68634051693. 1
- 68634051694. 2
- 68634051695. 3
- 68634051696. 4

Question Number : 25 Question Id : 68634013087 Question Type : MCQ Option Shuffling : No 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 is the first Indian to be Miss World ?

1. Aishwarya Rai
2. Reeta Faria
3. Diya Mirza
4. Lara Dutta

Options :

- 68634051697. 1
- 68634051698. 2
- 68634051699. 3
- 68634051700. 4

Question Number : 25 Question Id : 68634013087 Question Type : MCQ Option Shuffling : No 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 is the first Indian to be Miss World ?

1. Aishwarya Rai
2. Reeta Faria
3. Diya Mirza
4. Lara Dutta

Options :

- 68634051697. 1
- 68634051698. 2
- 68634051699. 3
- 68634051700. 4

Part B: Electrical Power and Energy Engineering

| | |
|--|-----------|
| Section Id : | 686340260 |
| 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 : | 686340428 |
| Question Shuffling Allowed : | Yes |
| Is Section Default? : | null |

Question Number : 26 Question Id : 68634013088 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 4 Wrong Marks : 1

Value of $\int_C \frac{2z+1}{z^2+z} dz$, where C is $|z| = \frac{1}{2}$, is :

1. $-2\pi i$
2. $2\pi i$
3. πi
4. 0

Options :

68634051701. 1
68634051702. 2
68634051703. 3
68634051704. 4

Question Number : 26 Question Id : 68634013088 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 4 Wrong Marks : 1

$\int_C \frac{2z+1}{z^2+z} dz$ का मान क्या होगा ? यहाँ C $|z| = \frac{1}{2}$:

1. $-2\pi i$
2. $2\pi i$
3. πi
4. 0

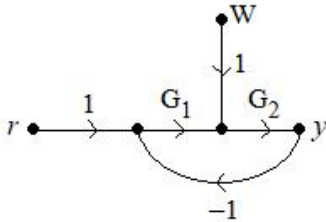
Options :

- 68634051701. 1
- 68634051702. 2
- 68634051703. 3
- 68634051704. 4

Question Number : 27 Question Id : 68634013089 Question Type : MCQ Option Shuffling : No 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 signal flow diagram shown represents a feedback system subjected to a disturbance $W(s)$. The transfer function relating output $y(s)$ to $w(s)$ with reference $[R(s)=0]$, is:-



1. $\frac{G_1 G_2}{1 + G_1 G_2}$

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

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

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

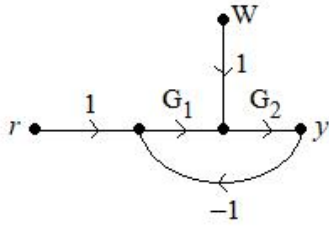
Options :

- 68634051705. 1
- 68634051706. 2
- 68634051707. 3
- 68634051708. 4

Question Number : 27 Question Id : 68634013089 Question Type : MCQ Option Shuffling : No 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 दिया गया चित्र एक पुर्नभरण संकेत (सिगनल) प्रवाह को दर्शाता है जो विक्षोभ $W(s)$ से प्रभावित है। निरति $y(s)$ को संबंधित करने वाला अंतरित फलन $[R(s) = 0]$, निर्देश के साथ क्या है:-



1. $\frac{G_1 G_2}{1 + G_1 G_2}$

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

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

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

Options :

- 68634051705. 1
- 68634051706. 2
- 68634051707. 3
- 68634051708. 4

Question Number : 28 Question Id : 68634013090 Question Type : MCQ Option Shuffling : No 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 maximum possible speeds in rpm at which an alternators can be driven to generate voltages at 60 Hz and 50 Hz are, respectively:

- 1. 7200 , 6000
- 2. 3000 , 3600
- 3. 6000 , 7200
- 4. 3600 , 3000

Options :

- 68634051709. 1
- 68634051710. 2
- 68634051711. 3
- 68634051712. 4

Question Number : 28 Question Id : 68634013090 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

अधिकतम संभावित rpm मे वे चाले जिस पर एक पत्यावर्तित्र को क्रमाश : 60 Hz और 50 Hz के विभव जनन करने के लिए परिचालित किया जा सकता है:

1. 7200 , 6000
2. 3000 , 3600
3. 6000 , 7200
4. 3600 , 3000

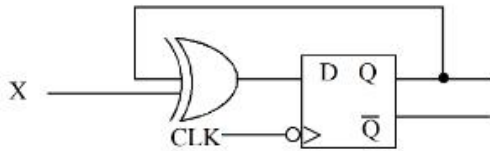
Options :

68634051709. 1
68634051710. 2
68634051711. 3
68634051712. 4

Question Number : 29 Question Id : 68634013091 Question Type : MCQ Option Shuffling : No 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 digital circuit shown in below represents:



1. JK Flip-flop
2. Clocked RS Flip-flop
3. T Flip-flop
4. Ring Counter

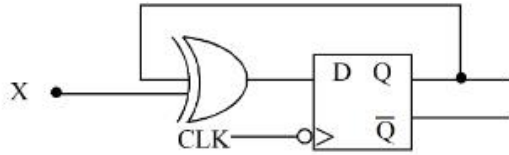
Options :

68634051713. 1
68634051714. 2
68634051715. 3
68634051716. 4

Question Number : 29 Question Id : 68634013091 Question Type : MCQ Option Shuffling : No 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 दिया गया द्वादशांश (डिजिटल) परिपथ क्या दर्शाता है?



1. JK Flip-flop
2. Clocked RS Flip-flop
3. T Flip-flop
4. Ring Counter

Options :

68634051713. 1
68634051714. 2
68634051715. 3
68634051716. 4

Question Number : 30 Question Id : 68634013092 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Assume the incremental cost characteristics of two generates delivering 250MW as.

$$\frac{dF_1}{dP_1} = 20 + 0.01P_1$$

$$\frac{dF_2}{dP_2} = 14 + 0.2 P_1$$

For economic operation, the generation P_1 and P_2 should be:

1. $P_1 = P_2 = 125\text{MW}$
2. $P_1 = 209.5 \text{ MW}; P_2 = 40.5 \text{ MW}$
3. $P_1 = 250\text{MW}; P_2 = 0 \text{ MW}$
4. $P_1 = 40.5\text{MW}; P_2 = 209.5\text{MW}$

Options :

68634051717. 1
68634051718. 2
68634051719. 3
68634051720. 4

Question Number : 30 Question Id : 68634013092 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

मानो दो जनित्र जो 250MW निकास कर रहे है की वार्धिक मूल्य विशेषता है

$$\frac{dF_1}{dP_1} = 20 + 0.01P_1$$

$$\frac{dF_2}{dP_2} = 14 + 0.2 P_1$$

आर्थिक प्रचालन के लिए P_1 और P_2 का उत्पादन क्या होना चाहिए?

1. $P_1 = P_2 = 125\text{MW}$
2. $P_1 = 209.5 \text{ MW}; P_2 = 40.5 \text{ MW}$
3. $P_1 = 250\text{MW}; P_2 = 0 \text{ MW}$
4. $P_1 = 40.5\text{MW}; P_2 = 209.5\text{MW}$

Options :

- 68634051717. 1
- 68634051718. 2
- 68634051719. 3
- 68634051720. 4

Question Number : 31 Question Id : 68634013093 Question Type : MCQ Option Shuffling : No 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 value of solar constant is.

1. 1000 W/m^2
2. Zero
3. 1367 W/m^2
4. 500 W/m^2

Options :

- 68634051721. 1
- 68634051722. 2
- 68634051723. 3
- 68634051724. 4

Question Number : 31 Question Id : 68634013093 Question Type : MCQ Option Shuffling : No 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 ऊष्मांक का मान क्या है?

1. 1000 W/m²
2. शून्य
3. 1367 W/m²
4. 500 W/m²

Options :

68634051721. 1
68634051722. 2
68634051723. 3
68634051724. 4

Question Number : 32 Question Id : 68634013094 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

UNFCCC stands for:

1. United nations Framework Control on Climate Change
2. United Nations Framework Communication on climate Change
3. United Nations Framework Convention on Climate Change
4. United Nations Framework Control on Communication Council

Options :

68634051725. 1
68634051726. 2
68634051727. 3
68634051728. 4

Question Number : 32 Question Id : 68634013094 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

UNFCCC किसके लिए है (प्रयोग होता है)

1. यूनाइटेड नेशन्स फ्रेमवर्क कंट्रोल ऑन क्लाइमेट चेंज
2. यूनाइटेड नेशन्स फ्रेमवर्क कोम्म्युनिकेशन ऑन क्लाइमेट चेंज
3. यूनाइटेड नेशन्स फ्रेमवर्क कन्वेंशन ऑन क्लाइमेट चेंज
4. यूनाइटेड नेशन्स फ्रेमवर्क कंट्रोल ऑन कोम्म्युनिकेशन चेंज

Options :

68634051725. 1

68634051726. 2

68634051727. 3

68634051728. 4

Question Number : 33 Question Id : 68634013095 Question Type : MCQ Option Shuffling : No 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: Dot product of two vectors is positive or negative depending on whether the angle between the vectors is less than or greater than $\frac{\pi}{2}$.

Statement II: Dot product is equal to the product of one vector and the projection of the vector on the first one

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 :

68634051729. 1

68634051730. 2

68634051731. 3

68634051732. 4

Question Number : 33 Question Id : 68634013095 Question Type : MCQ Option Shuffling : No 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: दो सदिशों का विंदु-गुणनफल ऋणात्मक है या घनात्मक वह इस बात पर निर्भर करता है कि उनके बीच कोण $\frac{\pi}{2}$ से बड़ा है या छोटा

कथन II: बिंदु-गुणनफल, एक सदिश और उसका पहले सदिश पर प्रक्षेपण के गुणनफल के बराबर होता है
उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:

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

Options :

68634051729. 1
68634051730. 2
68634051731. 3
68634051732. 4

Question Number : 34 Question Id : 68634013096 Question Type : MCQ Option Shuffling : No 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: For measuring the value of unknown capacitance one of the method used is the De Sauty's Bridge which is based on comparing the two capacitances

Reason R: De-Sauty's Bridge cannot be used for measuring the value of unknown capacitance if both the capacitors are not free from dielectric loss

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 :

68634051733. 1
68634051734. 2
68634051735. 3

Question Number : 34 Question Id : 68634013096 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

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

अभिकथन A: अज्ञात धारिता के मान को मापने के लिए प्रयोग आने वाली एक विधि डी साउटी सेतु है जो दो धारिताओ की तुलना पर आधारित हैं।

कारण R: डी.साउटी सेतु, को अज्ञात धारिता का मान मापने के लिए प्रयोग नहीं किया जा सकता यदि दोनो संधारित्र परावैद्युत हानि से मुक्त नहीं है।

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

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

Options :

68634051733. 1
68634051734. 2
68634051735. 3
68634051736. 4

Question Number : 35 Question Id : 68634013097 Question Type : MCQ Option Shuffling : No 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 statements for synchronous Machine.

- A. Synchronous machine can have a cylindrical rotor.
- B. Synchronous motors are connected to the bus bars in generating stations and electrical substations to improve power factor
- C. In a synchronous machine, hunting is predominantly damped by copper losses in the stator.
- D. During hunting of synchronous motor, damper bars develop torque
- E. Hunting is occurred in only synchronous motors

Choose the correct answer from the options given below:

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

Options :

- 68634051737. 1
- 68634051738. 2
- 68634051739. 3
- 68634051740. 4

Question Number : 35 Question Id : 68634013097 Question Type : MCQ Option Shuffling : No 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 समकालिक तुल्यकालिक यंत्र के लिए सही कथन चुने

- A. तुल्यकालिक यंत्र की बेलनाकार रोटर हो सकती है
- B. तुल्यकालिक मोटर को उत्पादन स्टेशन में और विद्युत उपसेटेशन बस की छड़ के साथ
- C. तुल्यकालिक यंत्र में, आखेटन (हंटिंग) अधिकतर स्टैटर में कापर हानि के कारण अवमंदित (डैम्प) होती है
- D. तुल्यकालिक यंत्र में हंटिंग के दौरान डम्पर (अवमंदक) छड़ बल आघूर्ण उत्पन्न करती है
- E. हंटिंग (आखटेन) केवल तुल्यकालिक मोटरों में होती है

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

- 68634051737. 1
- 68634051738. 2
- 68634051739. 3
- 68634051740. 4

Question Number : 36 Question Id : 68634013098 Question Type : MCQ Option Shuffling : No 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: Self-Bias and collector-to-Base circuits are examples of feedback amplifier which increase drastically the gain of the signal.

Statement II: Quite often, both bias compensation and stabilization techniques are used to provide maximum bias and thermal stabilization

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 :

68634051741. 1
68634051742. 2
68634051743. 3
68634051744. 4

Question Number : 36 Question Id : 68634013098 Question Type : MCQ Option Shuffling : No 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: स्वामिनति और अमिग्राही से बेस (आधार) परिपथ पुन भरण प्रवर्धक के उदाहरण है जो संकेत लब्धि को प्रचंड रूप से बढ़ा देते है

कथन II: अधिकतर बायस प्रतिकार (क्षतिपूर्ति) और स्थायीकरण तकनीक दोनों का प्रयोग अधिकतम बायस और ऊष्मीय स्थायीकरण प्रदान करने के लिए जाता है।

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

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

Options :

68634051741. 1
68634051742. 2
68634051743. 3

Question Number : 37 Question Id : 68634013099 Question Type : MCQ Option Shuffling : No 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 statements.

- A. In CSI input current is Variable.
- B. CSI requires feedback diodes.
- C. Both controlled and uncontrolled switches are used in CSI.
- D. CSI does not require filters.
- E. CSI circuit requires large inductance.

Choose the correct answer from the options given below:

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

Options :

- 68634051745. 1
- 68634051746. 2
- 68634051747. 3
- 68634051748. 4

Question Number : 37 Question Id : 68634013099 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

सही कथन चुनें

- A. CSI में, निवेश धारा बदसती रहती हैं।
- B. CSI में, पुनर्मरण डायडो की आवश्यकता होती हैं।
- C. CSI में, दोनों नियंत्रण और अनियंत्रण स्विच प्रयोग किए जाते है
- D. CSI में फिल्टर की आवश्यकता नहीं होती
- E. CSI परिपथम अधिक प्रतिबाधा की आवश्यकता होती है।

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

- 68634051745. 1

68634051746. 2
68634051747. 3
68634051748. 4

Question Number : 38 Question Id : 68634013100 Question Type : MCQ Option Shuffling : No 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: Power in waves is directly proportional to the square of its amplitude and inversely proportional to the period of motion

Statement II: Compared to open cycle system a closed cycle OTEC system has higher working pressure in boiler/ turbine and lower specific volume of working fluid

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 :

68634051749. 1
68634051750. 2
68634051751. 3
68634051752. 4

Question Number : 38 Question Id : 68634013100 Question Type : MCQ Option Shuffling : No 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: तरंगों की शक्ति, आयाम के वर्ग के समानुपाती और गति के कालकी व्यक्तमानुपाती होती है।

कथन II: खुले चक्र निकाय की तुलना में बंद चक्र (OTEC) निकाय के कथिन्न टरबाइन में उच्च प्रचालन दाव और प्रचालन द्रव का निम्न विशिष्ट आयतन होता है

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

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

Options :

68634051749. 1
68634051750. 2
68634051751. 3
68634051752. 4

Question Number : 39 Question Id : 68634013101 Question Type : MCQ Option Shuffling : No 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: Energy yield ratio is the ratio of energy consumed to the energy produced

Statement II: Primary energy sources have higher value of energy yield ratio

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

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

Options :

68634051753. 1
68634051754. 2
68634051755. 3
68634051756. 4

Question Number : 39 Question Id : 68634013101 Question Type : MCQ Option Shuffling : No 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: उर्जा पराभव अनुपात उर्जा उपमुक्त और उर्जा उत्सर्जन का अनुपात है।

कथन II: प्राथमिक उर्जा स्रोतो की उर्जा पराभव का मान उच्च होता है।

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

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

Options :

68634051753. 1

68634051754. 2

68634051755. 3

68634051756. 4

Question Number : 40 Question Id : 68634013102 Question Type : MCQ Option Shuffling : No 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 $X = [\alpha_{ij}]$, $i \geq 1, j \leq n$, with $\alpha_{ij} = i \cdot j$

Then number of linearly independent Rows are:

1. 0
2. 1
3. n
4. n-1

Options :

68634051757. 1

68634051758. 2

68634051759. 3

68634051760. 4

Question Number : 40 Question Id : 68634013102 Question Type : MCQ Option Shuffling : No 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 $X = [\alpha_{ij}]$, $i \geq 1, j \leq n$, $\alpha_{ij} = i \cdot j$

के साथ हैं, तो रैखिक स्वतंत्र पंक्तियों की संख्या क्या होगी?

1. 0
2. 1
3. n
4. n-1

Options :

68634051757. 1
68634051758. 2
68634051759. 3
68634051760. 4

Question Number : 41 Question Id : 68634013103 Question Type : MCQ Option Shuffling : No 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 first two rows in the Routh table for characteristics equation of a certain closed loop control system are given as:-

| | | |
|-------|---|----------|
| S^3 | 1 | $(2K+3)$ |
| S^2 | K | 4 |

The range of K for which the system is stable is-

1. $-2.0 < K < 0.5$
2. $0 < K < 0.5$
3. $0 < K < \infty$
4. $0.5 < K < \infty$

Options :

68634051761. 1
68634051762. 2
68634051763. 3
68634051764. 4

Question Number : 41 Question Id : 68634013103 Question Type : MCQ Option Shuffling : No 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 संवृत पाश तंत्र के अमिलक्षणिक समीकरण के लिए राउथ तालिका मे पहली दो पंक्तियाँ दी गई है

| | | |
|-------|---|----------|
| S^3 | 1 | $(2K+3)$ |
| S^2 | K | 4 |

K का परिसर जिसके लिए तंत्र स्थायी है क्या होगा?

1. $-2.0 < K < 0.5$
2. $0 < K < 0.5$
3. $0 < K < \infty$
4. $0.5 < K < \infty$

Options :

68634051761. 1
68634051762. 2
68634051763. 3
68634051764. 4

Question Number : 42 Question Id : 68634013104 Question Type : MCQ Option Shuffling : No 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 flux involved in the emf equation of a transformer has _____ .

1. rms value
2. maximum value
3. total value
4. average value

Options :

68634051765. 1
68634051766. 2
68634051767. 3
68634051768. 4

Question Number : 42 Question Id : 68634013104 Question Type : MCQ Option Shuffling : No 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 रूपांतरक (ट्रान्सफॉर्मर) के emf समीकरण में शामिल फ्लक्स क्या होगा?

1. rms मान
2. अधिकतम मान
3. कुल मान
4. औसत मान

Options :

68634051765. 1
68634051766. 2
68634051767. 3
68634051768. 4

Question Number : 43 Question Id : 68634013105 Question Type : MCQ Option Shuffling : No 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 value of the half-wave rectifier is given as:

1. $\frac{I_m}{\sqrt{2}}$
2. $\frac{I_m}{\pi}$
3. $\frac{2 I_m}{\pi}$
4. $\frac{I_m}{2}$

Options :

68634051769. 1
68634051770. 2
68634051771. 3
68634051772. 4

Question Number : 43 Question Id : 68634013105 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

अर्ध तरंग दिष्टकारी का औसत मान क्या है?

1. $\frac{Im}{\sqrt{2}}$

2. $\frac{Im}{\pi}$

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

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

Options :

68634051769. 1

68634051770. 2

68634051771. 3

68634051772. 4

Question Number : 44 Question Id : 68634013106 Question Type : MCQ Option Shuffling : No 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 three phase voltage source inverter operating in square wave mode, the output line voltage is free from

1. 3rd harmonic

2. 7th harmonic

3. 11th harmonic

4. 13th harmonic

Options :

68634051773. 1

68634051774. 2

68634051775. 3

68634051776. 4

Question Number : 44 Question Id : 68634013106 Question Type : MCQ Option Shuffling : No 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 तीन प्रावस्था विमक स्त्रोत प्रतिलोमक जो वर्ग तरंग विधा मे प्रचलित हैं, तो निर्गत लाइन विभव मुक्त रुप में क्या होगी

1. तीसरा हरात्मक
2. सातवाँ हरात्मक
3. ग्यारहवा हरात्मक
4. तेरहवा हरात्मक

Options :

68634051773. 1
68634051774. 2
68634051775. 3
68634051776. 4

Question Number : 45 Question Id : 68634013107 Question Type : MCQ Option Shuffling : No 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 value of solar radiation in summer is maximum on the surface having inclination angle equal to.

1. Latitude angle
2. Altitude angle
3. Zenith angle
4. Surface azimuth angle

Options :

68634051777. 1
68634051778. 2
68634051779. 3
68634051780. 4

Question Number : 45 Question Id : 68634013107 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

गर्मियों में सौर विकिरण उस सतह पर अधिकतम होती है जिसका आनाति कोण बराबर होता है

1. अक्षरा कोण के
2. उन्नतांश कोण के
3. शिरोबिंदु कोण के
4. पृष्ठीय दिगश कोण के

Options :

68634051777. 1

68634051778. 2
68634051779. 3
68634051780. 4

Question Number : 46 Question Id : 68634013108 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Method of estimating the total product cost by taking into account the whole life cycle of the product as well as the direct and external cost is.

1. Payback period
2. Life cycle costing
3. Net Present Value
4. Investment

Options :

68634051781. 1
68634051782. 2
68634051783. 3
68634051784. 4

Question Number : 46 Question Id : 68634013108 Question Type : MCQ Option Shuffling : No 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 उत्पाद मूल्य का, पूर्ण जीवन चक्र प्रत्यक्ष मूल्य तथा बाह्य (मौलिक) मूल्य को ध्यान में रख कर ऑकलन करने की विधि क्या कहलाती है

1. भुगतान काल
2. जीवन चक्र मूल्यांकन
3. निवल (नेट) वर्तमान मान
4. निवेश

Options :

68634051781. 1
68634051782. 2
68634051783. 3
68634051784. 4

Question Number : 47 Question Id : 68634013109 Question Type : MCQ Option Shuffling : No 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: If Matrices A is orthogonal then Determinant of A is ± 1 i.e $|A| = \pm 1$

Statement II: If Matrices A has Determinant of A is ± 1 i.e $|A| = \pm 1$, then matrice A is orthogonal

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 :

68634051785. 1
68634051786. 2
68634051787. 3
68634051788. 4

Question Number : 47 Question Id : 68634013109 Question Type : MCQ Option Shuffling : No 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: यदि आव्यूह A लांबिक है तो A का सारणिक ± 1 अर्थात $|A| = \pm 1$

कथन II: यदि आव्यूह A का सारणिक ± 1 है अर्थात $|A| = \pm 1$ तो आव्यूह A लांबिक है।

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

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

Options :

68634051785. 1
68634051786. 2
68634051787. 3
68634051788. 4

Question Number : 48 Question Id : 68634013110 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Consider the correct statements in respect of the thermoelectric instruments. The correct sequence is:

- A. They indicate the rms value of current or voltage
- B. They suffer from waveforms errors
- C. They can be used for frequency range of the order of MHz
- D. They have a low overload capacity
- E. They have a high accuracy

Choose the correct answer from the options given below:

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

Options :

- 68634051789. 1
- 68634051790. 2
- 68634051791. 3
- 68634051792. 4

Question Number : 48 Question Id : 68634013110 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

ताप-वैद्युत यंत्रों के संदर्भ में सही कथनों को ध्यान में रखिए, उनका सही क्रम है :-

- A. वे धारा या विभव के rms मान को दिखाते हैं (निदर्शित करते हैं)
- B. वे तरंग रूप त्रुटियों को झेलते हैं।
- C. वे MHz कोटि के आवृत्ति परिसर के लिए प्रयोग किए जा सकते हैं।
- D. उनकी अतिमार धारिता निम्न होती है।
- E. उनकी यथार्थकता उच्च होती है।

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

- 68634051789. 1
- 68634051790. 2
- 68634051791. 3
- 68634051792. 4

Question Number : 49 Question Id : 68634013111 Question Type : MCQ Option Shuffling : No 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: In a magnetic field, the force on a current carrying conductor is $F = BI l$.

Statement II: If the current carrying conductor is placed at an angle θ with the magnetic field. So $F = BI l \sin \theta$

(Where F: Force, B = flux density, l =area, I = the magnitude of current)

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 :

- 68634051793. 1
- 68634051794. 2
- 68634051795. 3
- 68634051796. 4

Question Number : 49 Question Id : 68634013111 Question Type : MCQ Option Shuffling : No 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 चालक जिसमें विद्युत धारा प्रवाहित हो रही है जब उसे चुम्बकिय क्षेत्र में रखा जाता है तो उस पर लगा रहा बल $F = BIl$

कथन II: यदि एक चालक जिसमें विद्युत धारा प्रवाहित हो रही है को चुम्बकिय क्षेत्र में इस तरह रखा जाता है कि उसका कोण चुम्बकिय क्षेत्र के साथ θ है तो लग रहा बल $F = BIl \sin \theta$

(यहाँ F : बल, B = फ्लक्स घनत्व, l = क्षेत्रफल I = धारा का परिमाण)

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

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

Options :

68634051793. 1
68634051794. 2
68634051795. 3
68634051796. 4

Question Number : 50 Question Id : 68634013112 Question Type : MCQ Option Shuffling : No 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: A 64-input Mux can be built by using eight 8-input Mux's

Reason R: Any six variable function can always be implemented by a multiplexer with six address lines

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 :

68634051797. 1
68634051798. 2

68634051799. 3

68634051800. 4

Question Number : 50 Question Id : 68634013112 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

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

अभिकथन A: एक 64- निवेश (इनपुट)Mux को आठ 8-निवेश (इनपुट) का प्रयोग कर के बनाया जा सकता है

कारण R: कोई 6 चर फलन को हमेशा एक बहुसंकेत, छ: एडडरेस (पता) लाइनो के द्वारा कार्यन्वित किया जा सकता है

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

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

Options :

68634051797. 1

68634051798. 2

68634051799. 3

68634051800. 4

Question Number : 51 Question Id : 68634013113 Question Type : MCQ Option Shuffling : No 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: In 120° conduction mode voltage source inverter, phase voltage waveforms are quasisquare in nature

Statement II: In 180° conduction mode voltage source inverter, phase voltage wave forms are eight step in nature

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 :

- 68634051801. 1
- 68634051802. 2
- 68634051803. 3
- 68634051804. 4

Question Number : 51 Question Id : 68634013113 Question Type : MCQ Option Shuffling : No 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: 120° चालन मोड (विधा) विमक स्त्रोत प्रतिलोमक में प्रावस्था विभव तरंगरूप, प्रकृति में लगभग वर्गकल्प होती है

कथन II: 180° चालन मोड (विधा) विमक स्त्रोत प्रतिलोमक में प्रावस्था विभव तरंगरूप, प्रकृति में अष्ट होती है

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

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

Options :

- 68634051801. 1
- 68634051802. 2
- 68634051803. 3
- 68634051804. 4

Question Number : 52 Question Id : 68634013114 Question Type : MCQ Option Shuffling : No 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 statements which are correct with referred to solar cell are:

- A. The short circuit current of a solar cell changes logarithmically with radiation
- B. At maximum power point of the solar cell the product of voltage and current are maximum
- C. Energy pay back period of a single crystal silicone cell is 10 to 20 years
- D. At maximum power point of the solar cell both voltage and current are maximum
- E. Energy pay back period of a single crystal silicon cell is 1 to 3 years

Choose the correct answer from the options given below:

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

Options :

- 68634051805. 1
- 68634051806. 2
- 68634051807. 3
- 68634051808. 4

Question Number : 52 Question Id : 68634013114 Question Type : MCQ Option Shuffling : No 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 सेल के संदर्भ में सही कथन चुनिए

- A. एक सौर सेल की लघु परिपथ धारा विकिरणों के साथ लघु गणिकिय रूप से परिवर्तित होती है
- B. सौर सेल के अधिकतम (शीर्ष) शक्ति बिंदु पर विभव और धारा का घुणनफल अधिकतम होता है
- C. एक एकल क्रिस्टल सिलिकॉन सेल का उर्जा भुगतान काल 10 से 20 वर्ष होता है
- D. सौर सेल के अधिकतम (शीर्ष) शक्ति बिंदु पर विभव और धारा दोनों अधिकतम होते हैं
- E. एक एकल क्रिस्टल सिलिकॉन सेल का उर्जा भुगतान 1 से 3 वर्ष है

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

- 68634051805. 1
- 68634051806. 2

68634051807. 3

68634051808. 4

Question Number : 53 Question Id : 68634013115 Question Type : MCQ Option Shuffling : No 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: Sustainability in any process is to maintain the process indefinitely

Statement II: For sustainable development environment damage rate should be greater than environment recovery rate

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 :

68634051809. 1

68634051810. 2

68634051811. 3

68634051812. 4

Question Number : 53 Question Id : 68634013115 Question Type : MCQ Option Shuffling : No 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: किसी प्रक्रम मे संघारणीयता, प्रक्रम को अनिश्चित काल तक बनाए रखने के लिए है।

कथन II: संघारणीय विकास के लिए पर्यावरण क्षति दर पर्यावरण प्राप्तिदर से अधिक होनी चाहिए।

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

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

Options :

68634051809. 1

68634051810. 2
68634051811. 3
68634051812. 4

Question Number : 54 Question Id : 68634013116 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

For the function $f(x,y)=x^2-y^2+xy$ defined on \mathbb{R}^2 the point $(0,0)$ is:

1. Local minimum
2. Neither local minimum nor a local maximum
3. Local Maximum
4. Both local minimum and local maximum

Options :

68634051813. 1
68634051814. 2
68634051815. 3
68634051816. 4

Question Number : 54 Question Id : 68634013116 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

फलन $f(x,y)=x^2-y^2+xy$ जो \mathbb{R}^2 पर परिभाषित है, के लिए बिंदु $(0,0)$ है:

1. स्थानीय न्यूनतम
2. न स्थानीय न्यूनतम और नही स्थानीय अधिकतम
3. स्थानीय अधिकतम
4. स्थानीय न्यूनतम और स्थानीय अधिकतम दोनों

Options :

68634051813. 1
68634051814. 2
68634051815. 3
68634051816. 4

Question Number : 55 Question Id : 68634013117 Question Type : MCQ Option Shuffling : No 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 dimension for conductivity (σ) is.

1. $[M^{-1} L^{-3} T^3 A^2]$
2. $[M L^{-3} T^{-3} A^{-2}]$
3. $[M^{-1} L^{-3} T^3 A^{-2}]$
4. $[M L^{-3} T^3 A^2]$

Options :

68634051817. 1
68634051818. 2
68634051819. 3
68634051820. 4

Question Number : 55 Question Id : 68634013117 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

चालकता की विमा क्या है?

1. $[M^{-1} L^{-3} T^3 A^2]$
2. $[M L^{-3} T^{-3} A^{-2}]$
3. $[M^{-1} L^{-3} T^3 A^{-2}]$
4. $[M L^{-3} T^3 A^2]$

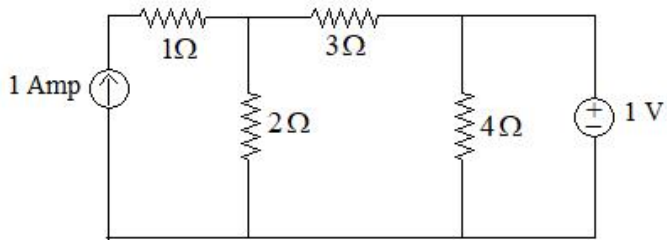
Options :

68634051817. 1
68634051818. 2
68634051819. 3
68634051820. 4

Question Number : 56 Question Id : 68634013118 Question Type : MCQ Option Shuffling : No 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 given circuit, current through 3Ω resistor is equal to.



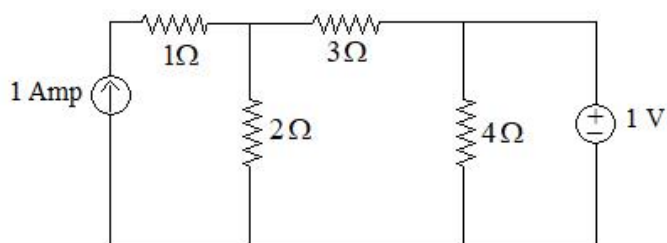
1. 0.20 Amp
2. 0.25 Amp
3. 0.022 Amp
4. 0.60 Amp

Options :

- 68634051821. 1
- 68634051822. 2
- 68634051823. 3
- 68634051824. 4

Question Number : 56 Question Id : 68634013118 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

दिए गए परिपथ में 3Ω के प्रतिरोध से प्रवाहित होने वाली विद्युत धारा क्या है?



1. 0.20 एम्पियर
2. 0.25 एम्पियर
3. 0.022 एम्पियर
4. 0.60 एम्पियर

Options :

- 68634051821. 1

68634051822. 2
68634051823. 3
68634051824. 4

Question Number : 57 Question Id : 68634013119 Question Type : MCQ Option Shuffling : No 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 relationship among the emitter capacitance (C_e), the diffusion capacitance (C_{De}) and the transition capacitance (C_{Te}) is given by:

1. $C_e = C_{De} + C_{Te}$

2. $C_{De} = C_e + C_{Te}$

3. $C_{Te} = C_e + C_{De}$

4. $C_e = \frac{C_{De} \times C_{Te}}{C_{De} + C_{Te}}$

Options :

68634051825. 1
68634051826. 2
68634051827. 3
68634051828. 4

Question Number : 57 Question Id : 68634013119 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

उत्सर्जक धारिता (C_e), विसरण धारिता (C_{De}) और संक्रमण धारिता (C_{Te}) के बीच संबंध दिया जाता है:

1. $C_e = C_{De} + C_{Te}$

2. $C_{De} = C_e + C_{Te}$

3. $C_{Te} = C_e + C_{De}$

4. $C_e = \frac{C_{De} \times C_{Te}}{C_{De} + C_{Te}}$

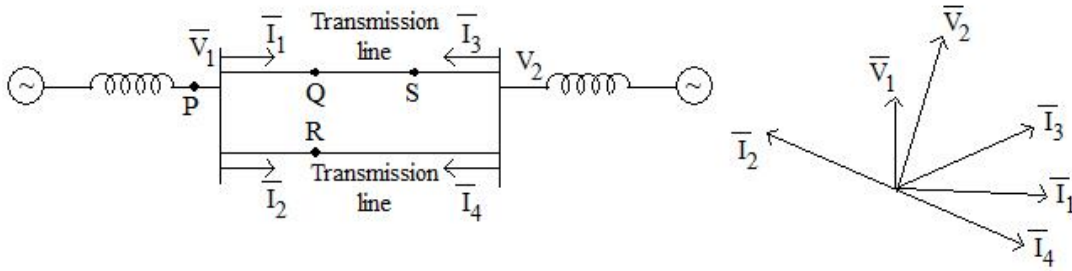
Options :

68634051825. 1
68634051826. 2
68634051827. 3
68634051828. 4

Question Number : 58 Question Id : 68634013120 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Identify the location of fault in the power system shown in the figure below. A sustained 3- Φ fault occurred. (The voltage and current phasors, after the natural transients have died down are also shown.)



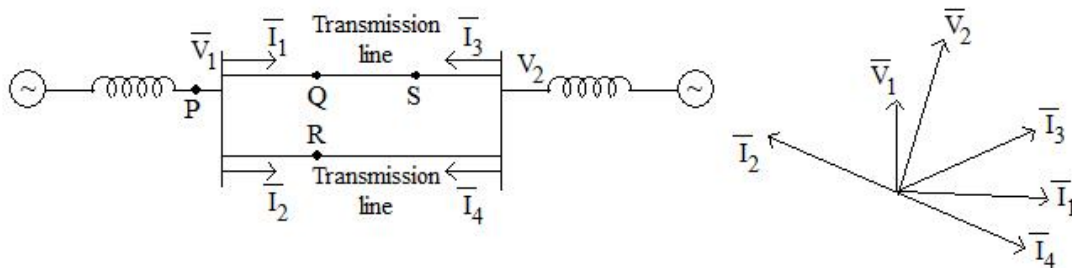
1. Location Q
2. Location P
3. Location S
4. Location R

Options :

68634051829. 1
 68634051830. 2
 68634051831. 3
 68634051832. 4

Question Number : 58 Question Id : 68634013120 Question Type : MCQ Option Shuffling : No 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 में एक शक्ति तंत्र में दोष की अवस्थिति पहचानिए। एक संधारणीय 3- Φ दोष उत्पन्न होता है। प्राकृतिक क्षणिकाओं के बाद विभव और धारा फेजर समाप्त हो जाते हैं जैसा चित्र में दिखाया गया है।



1. अवस्थिति Q
2. अवस्थिति P
3. अवस्थिति S
4. अवस्थिति R

Options :

68634051829. 1
 68634051830. 2
 68634051831. 3

68634051832. 4

Question Number : 59 Question Id : 68634013121 Question Type : MCQ Option Shuffling : No 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 wind speed at a site is 6 m/s for half of the year and 10 m/s for the rest of the year calculate the energy content in a year.

1. 6524.5 kWh/m²
2. 6524.5 Wh/m²
3. 5326.1 kWh/m²
4. 5326.1 Wh/m²

Options :

- 68634051833. 1
- 68634051834. 2
- 68634051835. 3
- 68634051836. 4

Question Number : 59 Question Id : 68634013121 Question Type : MCQ Option Shuffling : No 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 किसी स्थल पर पवन (वायु) चाल 6 मी/से. है और दुसरे आधे वर्ष के लिए 10 मी/से. है तो पूरे वर्ष मे उर्जा मात्रा क्या होगी?

1. 6524.5 kWh/m²
2. 6524.5 Wh/m²
3. 5326.1 kWh/m²
4. 5326.1 Wh/m²

Options :

- 68634051833. 1
- 68634051834. 2
- 68634051835. 3
- 68634051836. 4

Question Number : 60 Question Id : 68634013122 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

The correct sequence of countries in increasing order of their per capita emissions of carbon dioxide at present:

1. India, Japan, USA, China
2. India, China, Japan, USA
3. China, Japan, India, USA
4. China, India, Japan, USA

Options :

- 68634051837. 1
- 68634051838. 2
- 68634051839. 3
- 68634051840. 4

Question Number : 60 Question Id : 68634013122 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

वर्तमान में, प्रति व्यक्ति कार्बन उत्सर्जन के बढ़ने हुए क्रम के अनुसार, देशों का सही क्रम क्या है?

1. भारत, जापान, यू एस ए, चीन
2. भारत, चीन, जापान, यू एस ए
3. चीन, जापान, भारत, यू एस ए
4. चीन, भारत, जापान, यू.एस.ए

Options :

- 68634051837. 1
- 68634051838. 2
- 68634051839. 3
- 68634051840. 4

Question Number : 61 Question Id : 68634013123 Question Type : MCQ Option Shuffling : No 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. | Singular Matrix | I. | Determinant is always one. |
| B. | Real Symmetric Matrix | II. | Digonal element are necessarily either purely imaginary or zero |
| C. | Skew-Hermitian Matrix | III. | Eigen values are always Real |
| D. | Orthogonal Matrix | IV. | Determinant is always zero |

Choose the correct answer from the options given below:

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

Options :

68634051841. 1
 68634051842. 2
 68634051843. 3
 68634051844. 4

Question Number : 61 Question Id : 68634013123 Question Type : MCQ Option Shuffling : No 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. | अव्यक्रमणीय आव्यूह | I. | सारणिक हमेशा 1 होता है |
| B. | वास्तविक सममित आव्यूह | II. | विकर्ण अवयव जरूरी है कि या शुद्ध अधिकल्पित हो और या शून्य हो |
| C. | विषम हर्मिटिय आव्यूह | III. | अभिलक्षणिक मान हमेशा वास्तविक होते हैं |
| D. | लांबिक आव्यूह | IV. | सारणिक हमेशा शून्य होता है |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634051841. 1
 68634051842. 2
 68634051843. 3

Question Number : 62 Question Id : 68634013124 Question Type : MCQ Option Shuffling : No 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: For a unity feedback system with open-loop transfer function

$$G(s) = \frac{w_n}{s(s + 2z w_n)}, \tau < 0.7 ;$$

Statement I: Phase margin is explicitly indicative of damping ratio

Statement II: Resonance peak is explicitly indicative of damping ratio

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

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

Options :

- 68634051845. 1
- 68634051846. 2
- 68634051847. 3
- 68634051848. 4

Question Number : 62 Question Id : 68634013124 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

नीचे दो कथन दिए गए हैं:

एक एकल पुनर्भरण तंत्र खुला-पाश अंतरित फलन के साथ, के लिए

$$G(s) = \frac{w_n}{s(s + 2z w_n)}, \tau < 0.7 :$$

कथन I: कला परिसर, सूक्ष्म रूप से अवमंदन अनुपात का सूचक है।

कथन II: अनुवाद शिखर सूक्ष्म रूप से अवमंदन अनुपात का सूचक है।

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

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

Options :

68634051845. 1
68634051846. 2
68634051847. 3
68634051848. 4

Question Number : 63 Question Id : 68634013125 Question Type : MCQ Option Shuffling : No 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: At the resonant frequency, the impedance of a series RLC circuit is zero

Statement II: In a parallel GLC circuit, increasing the conductor G, results in increase in Q factor

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 :

68634051849. 1
68634051850. 2
68634051851. 3

Question Number : 63 Question Id : 68634013125 Question Type : MCQ Option Shuffling : No 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: अनुनादी आवृत्ति पर एक श्रेणीक्रम RLC परिपथ की प्रतिबाधा शून्य होती है।

कथन II: एक समांतर क्रम में, GLC परिपथ की, चालकत्व G बढ़ाने से, Q गुणक (घटक) बढ़ जाता है
उपरोक्त कथन के आलोक में, नीचे दिए गए विकल्पों में से सबसे उपयुक्त उत्तर का चयन कीजिए:

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

Options :

68634051849. 1
68634051850. 2
68634051851. 3
68634051852. 4

Question Number : 64 Question Id : 68634013126 Question Type : MCQ Option Shuffling : No 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 (EPRESSION-I) | | LIST II (EXPRESSION-II) | |
|-------------------------|---|----------------------------|----------------|
| A. | $ABC + AB\bar{C} + A\bar{B}C$ | I. | $\bar{A} + BC$ |
| B. | $\bar{A}B\bar{C} + AB\bar{C} + B\bar{C}$ | II. | $A(B + C)$ |
| C. | $\bar{A}BC + A\bar{B}C + AB\bar{C} + ABC$ | III. | $B\bar{C}$ |
| D. | $\bar{A}B + \bar{A}B + ABC$ | IV. | $AB + BC + AC$ |

Choose the correct answer from the options given below:

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

Options :

68634051853. 1
68634051854. 2
68634051855. 3
68634051856. 4

**Question Number : 64 Question Id : 68634013126 Question Type : MCQ Option Shuffling : No 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 (व्यंजक -I) | | सूची II (व्यंजक-II) |
|----|---|------|------------------------|
| A. | $ABC + AB\bar{C} + A\bar{B}C$ | I. | $\bar{A} + BC$ |
| B. | $\bar{A}B\bar{C} + AB\bar{C} + B\bar{C}$ | II. | $A(B + C)$ |
| C. | $\bar{A}BC + A\bar{B}C + AB\bar{C} + ABC$ | III. | $B\bar{C}$ |
| D. | $\bar{A}B + \bar{A}B + ABC$ | IV. | $AB + BC + AC$ |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634051853. 1
68634051854. 2
68634051855. 3
68634051856. 4

**Question Number : 65 Question Id : 68634013127 Question Type : MCQ Option Shuffling : No 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 Power MOSFET is current controlled device and requires very high input current.

Statement II: IGBT combines the advantages of BJTs and MOSFETs.

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 :

- 68634051857. 1
- 68634051858. 2
- 68634051859. 3
- 68634051860. 4

Question Number : 65 Question Id : 68634013127 Question Type : MCQ Option Shuffling : No 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 धारा नियंत्रित शक्ति MOSFET हैं जिसे उच्च निवेश धारा की आवश्यकता होती है।

कथन II: IGBT, BJTs और MOSFETs दोनों के लाभ का संयोजन करता है।

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

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

Options :

- 68634051857. 1
- 68634051858. 2
- 68634051859. 3
- 68634051860. 4

Question Number : 66 Question Id : 68634013128 Question Type : MCQ Option Shuffling : No 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 (Name of power plant) | | LIST II (Plant feature) | |
|---------------------------------|---------|----------------------------|-------------------------------|
| A. | Thermal | I. | High operating cost |
| B. | Nuclear | II. | High capital cost |
| C. | Hydro | III. | High plant life |
| D. | Diesal | IV. | High fuel transtoortairc cost |

Choose the correct answer from the options given below:

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

Options :

- 68634051861. 1
- 68634051862. 2
- 68634051863. 3
- 68634051864. 4

Question Number : 66 Question Id : 68634013128 Question Type : MCQ Option Shuffling : No 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. | ऊष्मीय | I. | उच्च प्रचालन मूल्य |
| B. | परमाणु | II. | गर्भपूँजी की उच्च लागत |
| C. | जलय | III. | संयंत्र की उच्च अवधि |
| D. | डीजल | IV. | ईंधन परिवहन की उच्च लागत |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

- 68634051861. 1
- 68634051862. 2
- 68634051863. 3

Question Number : 67 Question Id : 68634013129 Question Type : MCQ Option Shuffling : No 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: Carbon dioxide (CO₂) is the only gas responsible for global warming.

Statement II: Most carbon dioxide (CO₂) emission are from the use of fossil fuel.

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 :

- 68634051865. 1
- 68634051866. 2
- 68634051867. 3
- 68634051868. 4

Question Number : 67 Question Id : 68634013129 Question Type : MCQ Option Shuffling : No 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: कार्बन डाइऑक्साइड (CO₂) गैस ही केवल भूमंडलीय उष्मण के लिए उत्तरदायी है

कथन II: अधिकतर कार्बन डाइऑक्साइड (CO₂) का उत्सर्जन जीवाश्म ईंधन के प्रयोग से होता है

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

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

Options :

- 68634051865. 1
- 68634051866. 2

68634051867. 3

68634051868. 4

Question Number : 68 Question Id : 68634013130 Question Type : MCQ Option Shuffling : No 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 complete solution of the ordinary differential equation

$$\frac{d^2y}{dx^2} + \alpha \frac{dy}{dx} + \beta y = 0 \text{ is } y = c_1 e^{-x} + c_2 e^{-3x},$$

Then the values of α and β are:

1. $\beta=4, \alpha=3$

2. $\beta=3, \alpha=4$

3. $\beta=3, \alpha=3$

4. $\beta=4, \alpha=4$

Options :

68634051869. 1

68634051870. 2

68634051871. 3

68634051872. 4

Question Number : 68 Question Id : 68634013130 Question Type : MCQ Option Shuffling : No 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 सामान्य अवकल समीकरण

$$\frac{d^2y}{dx^2} + \alpha \frac{dy}{dx} + \beta y = 0$$

का पूर्ण हल है $y = c_1 e^{-x} + c_2 e^{-3x}$,

तो α और β का मान क्या है?

1. $\beta=4, \alpha=3$

2. $\beta=3, \alpha=4$

3. $\beta=3, \alpha=3$

4. $\beta=4, \alpha=4$

Options :

68634051869. 1

68634051870. 2

68634051871. 3

68634051872. 4

Question Number : 69 Question Id : 68634013131 Question Type : MCQ Option Shuffling : No 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 type -1 plant is changed to type -2 feedback system by which cascade control action:

1. PD
2. PI
3. Either PD or PI
4. Neither PD nor PI

Options :

68634051873. 1
68634051874. 2
68634051875. 3
68634051876. 4

Question Number : 69 Question Id : 68634013131 Question Type : MCQ Option Shuffling : No 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 टाइप -1 ,सयंत्र को टाइप -2 के पुनर्भरण तंत्र मे किस सोपानी नियंत्रण क्रिया से परिवर्तित किया जाता है

1. PD
2. PI
3. या PD और या PI से
4. न PD से और न PI से

Options :

68634051873. 1
68634051874. 2
68634051875. 3
68634051876. 4

Question Number : 70 Question Id : 68634013132 Question Type : MCQ Option Shuffling : No 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 short circuit admittance matrix of a two port network is $\begin{bmatrix} 0 & -1/2 \\ 1/2 & 0 \end{bmatrix}$. The given two port network is.

1. Non-reciprocal and passive
2. Non-reciprocal and active
3. Reciprocal and passive
4. Reciprocal and active

Options :

68634051877. 1
68634051878. 2
68634051879. 3
68634051880. 4

Question Number : 70 Question Id : 68634013132 Question Type : MCQ Option Shuffling : No 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 दो पोर्ट परिपथ की लघु-परिरथ प्रवेक्षता आव्यूह हैं $\begin{bmatrix} 0 & -1/2 \\ 1/2 & 0 \end{bmatrix}$ तो दिया गया दो पोर्ट परिपथ क्या है।

1. अव्युत्क्रम और निष्क्रिय
2. अव्युत्क्रम और सक्रिय
3. व्युत्क्रम और निष्क्रिय
4. व्युत्क्रम और सक्रिय

Options :

68634051877. 1
68634051878. 2
68634051879. 3
68634051880. 4

Question Number : 71 Question Id : 68634013133 Question Type : MCQ Option Shuffling : No 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 output of a clocked sequential circuit independent of the input. The circuit can be represented by.

1. Mealy Model
2. Moore Model
3. Either Mealy or Moore Model
4. Neither Mealy nor Moore Model

Options :

- 68634051881. 1
- 68634051882. 2
- 68634051883. 3
- 68634051884. 4

Question Number : 71 Question Id : 68634013133 Question Type : MCQ Option Shuffling : No 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 कालवदध अनुक्रमिके परिपथ, निवेश पर निर्भर नहीं करता। परिपथ को निम्नलिखित में से किससे दर्शाया जाता है?

- 1. मीले मॉडल
- 2. मूरे मॉडल
- 3. मीले या मूरे मॉडल
- 4. न मीले न मूरे मॉडल

Options :

- 68634051881. 1
- 68634051882. 2
- 68634051883. 3
- 68634051884. 4

Question Number : 72 Question Id : 68634013134 Question Type : MCQ Option Shuffling : No 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 Reaction turbine the length of draught tube is limited by the:

- 1. Speed of flowing water
- 2. Strength of material
- 3. The amount of available discharge
- 4. Possibility of cavitation

Options :

- 68634051885. 1
- 68634051886. 2
- 68634051887. 3
- 68634051888. 4

Question Number : 72 Question Id : 68634013134 Question Type : MCQ Option Shuffling : No 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 अभिक्रिया टरबाइन में प्रवात नली की लंबाई किस के द्वारा सीमित की जाती है

1. प्रवाहित जल की चाल से
2. पदार्थ की समर्थता
3. उपलब्ध विसर्जन की मात्रा से
4. कोटरीय संभावना से

Options :

- 68634051885. 1
- 68634051886. 2
- 68634051887. 3
- 68634051888. 4

Question Number : 73 Question Id : 68634013135 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

The rate of return that an investment provides its investor is classified as:

1. Investment Return Rate
2. Internal Rate of Return
3. International Rate of Return
4. Intrinsic Rate of Return

Options :

- 68634051889. 1
- 68634051890. 2
- 68634051891. 3
- 68634051892. 4

Question Number : 73 Question Id : 68634013135 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

वह प्रतिगामी दर जो एक निवेश अपने निवेशक को प्रदान करता है का वर्गीकरण किया जाता है

1. निवेश प्रतिगामी दर
2. आंतरिक प्रतिगामी दर
3. अंतरराष्ट्रीय प्रतिगामी दर
4. नैज प्रतिगामी दर

Options :

- 68634051889. 1
- 68634051890. 2

68634051891. 3

68634051892. 4

Question Number : 74 Question Id : 68634013136 Question Type : MCQ Option Shuffling : No 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: Low value Resistances can be measured by any one of the following methods:-Ammeter - Voltmeter method, Kelvins double bridge method and Potentiometer method.

Statement II: High value Resistance can be measured by any one of the following methods:-Direct deflection method, Mega-ohm bridge method, Kelvins double bridge method.

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 :

68634051893. 1

68634051894. 2

68634051895. 3

68634051896. 4

Question Number : 74 Question Id : 68634013136 Question Type : MCQ Option Shuffling : No 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: कम मान के प्रतिरोधो को इनमें से दी गई किसी भी एक विधि द्वारा मापा जा सकता है अमीटर वोल्टमीटर विधि, केल्विन दवि-सेतु विधि और विभवमापी विधि।

कथन II: उच्च मान के प्रतिरोध को दी गई किसी भी एक विधि द्वारा मापा जा सकता है प्रत्यक्ष विचलन विधि, मैगओम सेतु विधि, केल्विन दवि-सेतु विधि

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

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

Options :

68634051893. 1
68634051894. 2
68634051895. 3
68634051896. 4

Question Number : 75 Question Id : 68634013137 Question Type : MCQ Option Shuffling : No 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 3- ϕ Induction motor connected to a balanced 3- ϕ supply, if one of the lines suddenly gets disconnected, then the:

- A. Motor will come to a standstill.
- B. Motor will continue to run at the same speed with line current unchanged.
- C. Motor will continue to run at a slightly reduced speed with increased line current.
- D. Rotor currents will have both sf and $(2-s)f$ components frequencies where s is slip and f is the supply frequency.

Choose the correct answer from the options given below:

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

Options :

68634051897. 1
68634051898. 2
68634051899. 3

Question Number : 75 Question Id : 68634013137 Question Type : MCQ Option Shuffling : No 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- ϕ प्रेरण मोटर मे जिसे एक संतुलित 3- ϕ संभरण से जोड़ा जा सकता है। यदि एक लाइन अचानक टूट जाए तो

- A. मोटर पर विराम लग जाएगा (रुक जाएगी)
- B. मोटर अपरिवर्ति लाइन विद्युत धारा के साथ समान चाल से चलती रहेगी
- C. मोटर बढ़ी हुई लाइन विद्युत धारा के साथ कुछ (घटी हुई) कम चाल से चलती है
- D. रोटर धारा की दोनों s f और $(2-s)f$ दोनों घटक आवृत्तियाँ होंगी। यहाँ s स्लिप और f संभरण आवृत्ति है

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

- 68634051897. 1
- 68634051898. 2
- 68634051899. 3
- 68634051900. 4

Question Number : 76 Question Id : 68634013138 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

The correct statements are:

- A. A thyristor requires turn off circuit while transistor dose not.
- B. The voltage drop of thyristor is less than that of a transistor.
- C. A thyristor requires a continuous gate current.
- D. A transistor draws continuous base current.

Choose the correct answer from the options given below:

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

Options :

- 68634051901. 1

68634051902. 2

68634051903. 3

68634051904. 4

Question Number : 76 Question Id : 68634013138 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

उचित कथन चुनिए

- A. एक थाइरिस्टर को पिधानन परिपथ (बंद करने वाले परिपथ) की आवश्यकता होती है पर एक ट्रांजिस्टर को नहीं होती
- B. थाइरिस्टर का वोल्टता पात एक ट्रांजिस्टर से कम होता है
- C. थाइरिस्टर को निरंतर गेट द्वारा धारा की आवश्यकता होती है
- D. एक ट्रांजिस्टर निरंतर बेस (आधार) धारा का कर्षण करता है (लेता है)

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

68634051901. 1

68634051902. 2

68634051903. 3

68634051904. 4

Question Number : 77 Question Id : 68634013139 Question Type : MCQ Option Shuffling : No 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 net present value (NPV) of the investment is the sum of the present value of the benefits and cost of the investment.

Statement II: Net present value (NPV) can never be negative.

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 :

- 68634051905. 1
- 68634051906. 2
- 68634051907. 3
- 68634051908. 4

Question Number : 77 Question Id : 68634013139 Question Type : MCQ Option Shuffling : No 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: किसी निवेश का नेट वर्तमान मान (NPV) वर्तमान मान लाभ और निवेश के मूल्य के योग के बराबर होता है।

कथन II: नेट वर्तमान मान कभी भी ऋणात्मक नहीं हो 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 है
2. कथन I और II दोनों सही नहीं है
3. कथन I सही है, लेकिन कथन II गलत है
4. कथन I गलत है, लेकिन कथन II सही है

Options :

- 68634051905. 1
- 68634051906. 2
- 68634051907. 3
- 68634051908. 4

Question Number : 78 Question Id : 68634013140 Question Type : MCQ Option Shuffling : No Is Question Mandatory :

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

Correct Marks : 4 Wrong Marks : 1

Value of $\int_C \frac{z+4}{z^2+2z+5} dz$ if C is the circle $|Z+1|=1$, is:

1. -1

2. $-\pi i$

3. $-\frac{1}{2\pi i}$

4. Zero

Options :

68634051909. 1

68634051910. 2

68634051911. 3

68634051912. 4

Question Number : 78 Question Id : 68634013140 Question Type : MCQ Option Shuffling : No Is Question Mandatory :

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

Correct Marks : 4 Wrong Marks : 1

$\int_C \frac{z+4}{z^2+2z+5} dz$ का मान क्या होगा? अगर C एक गोला है और $|Z+1|=1$,

1. -1

2. $-\pi i$

3. $-\frac{1}{2\pi i}$

4. Zero

Options :

68634051909. 1

68634051910. 2

68634051911. 3

68634051912. 4

Question Number : 79 Question Id : 68634013141 Question Type : MCQ Option Shuffling : No Is Question Mandatory :

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

Correct Marks : 4 Wrong Marks : 1

During hunting of Synchronous motor:

1. Negative phase sequence currents are generated
2. Harmonics are developed in the armature circuit
3. Damper for develops torque
4. Field excitation increases

Options :

- 68634051913. 1
- 68634051914. 2
- 68634051915. 3
- 68634051916. 4

Question Number : 79 Question Id : 68634013141 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

तुल्यकालिक मोटर की हंटिंग (आखेटन) के दौरान

1. ऋणात्मक कला अनुक्रम धाराएँ उत्पन्न होती हैं
2. आर्मेचर परिपथ में हरात्मक हार्मोनिक विकसित होते हैं
3. डैम्पर बल आधूर्ण विकसित करता है
4. क्षेत्र उत्तेजन बढ़ जाता है

Options :

- 68634051913. 1
- 68634051914. 2
- 68634051915. 3
- 68634051916. 4

Question Number : 80 Question Id : 68634013142 Question Type : MCQ Option Shuffling : No 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 32:1 MUX can be designed using:

1. Two 16:1 MUX and one 2-input OR gate
2. Two 16:1 MUX and one 2-input AND gate
3. Two 16:1 MUX and two 2-input OR gate
4. Two 16:1 MUX and two 2-input AND gate

Options :

- 68634051917. 1
- 68634051918. 2

68634051919. 3

68634051920. 4

Question Number : 80 Question Id : 68634013142 Question Type : MCQ Option Shuffling : No 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 32:1 MUX को निम्नलिखित में से किसे प्रयोग करके डिजाइन किया जा सकता है

1. दो 16:1 MUX और एक 2-इनपुट (निवेश) OR गेट
2. दो 16:1 MUX और एक 2-इनपुट (निवेश) AND गेट
3. दो 16:1 MUX और दो 2-इनपुट (निवेश) OR गेट
4. दो 16:1 MUX और दो 2-इनपुट (निवेश) AND गेट

Options :

68634051917. 1

68634051918. 2

68634051919. 3

68634051920. 4

Question Number : 81 Question Id : 68634013143 Question Type : MCQ Option Shuffling : No 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 ethanol operated engine produces _____ an compound to the petrol operated engine.

1. 50% more power
2. 20 % more power
3. Comparable amount of power
4. 50% less power

Options :

68634051921. 1

68634051922. 2

68634051923. 3

68634051924. 4

Question Number : 81 Question Id : 68634013143 Question Type : MCQ Option Shuffling : No 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 एथनॉल प्रचलित इंजिन, एक पेट्रोल प्रचलित इंजिन की अपेक्षा (तुलना में) _____ उत्पन्न करता है।

1. 50%अधिक शक्ति
2. 20 % अधिक शक्ति
3. तुलनीय मात्रा की शक्ति
4. 50% कम शक्ति

Options :

68634051921. 1
68634051922. 2
68634051923. 3
68634051924. 4

Question Number : 82 Question Id : 68634013144 Question Type : MCQ Option Shuffling : No 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 which is the true regarding time value of money concepts is:

1. Money received today is worth the same as money received in the future.
2. Money received today is worth more than money received in the future.
3. Money received today is worth less than money received in the future.
4. Money paid today is worth the same as money paid in the future.

Options :

68634051925. 1
68634051926. 2
68634051927. 3
68634051928. 4

Question Number : 82 Question Id : 68634013144 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

वैधकथन जो मुद्रा के कालांतर मान संकल्पना के लिए सत्य है चुनिए।

1. आज प्राप्त की गई मुद्रा का महत्व (मूल्य) भविष्य में प्राप्त की गई मुद्रा के समान हैं
2. आज प्राप्त की गई मुद्रा का महत्व (मूल्य) भविष्य में प्राप्त की गई मुद्रा से अधिक हैं
3. आज प्राप्त की गई मुद्रा का महत्व (मूल्य) भविष्य में प्राप्त की गई मुद्रा से कम हैं
4. आज अदा की गई मुद्रा का महत्व (मूल्य) भविष्य में प्राप्त की गई मुद्रा के समान हैं

Options :

68634051925. 1

68634051926. 2

68634051927. 3

68634051928. 4

Question Number : 83 Question Id : 68634013145 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Two Random Variable x and y are distributed according to.

$$f_{x,y}(x,y) = \begin{cases} (x+y), & 0 \leq x \leq 1, 0 \leq y \leq 1 \\ 0, & \text{otherwise} \end{cases}$$

The Probability $P(x + y \leq 1)$ is:

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

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

3. $\frac{1}{6}$

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

Options :

68634051929. 1

68634051930. 2

68634051931. 3

68634051932. 4

Question Number : 83 Question Id : 68634013145 Question Type : MCQ Option Shuffling : No 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 यादृच्छिक चर x और y , इसके अनुसार वितरित हैं

$$f_{x,y}(x,y) = \begin{cases} (x+y), & 0 \leq x \leq 1, 0 \leq y \leq 1 \\ 0, & \text{अन्यथा} \end{cases}$$

प्रायिकता $P(x+y \leq 1)$ हैं

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

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

3. $\frac{1}{6}$

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

Options :

68634051929. 1

68634051930. 2

68634051931. 3

68634051932. 4

Question Number : 84 Question Id : 68634013146 Question Type : MCQ Option Shuffling : No 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 partial differential equation

$$\frac{\partial u}{\partial x} = 2 \frac{\partial u}{\partial t} + U$$

$$U(x, 0) = 6e^{-3x}$$

1. $U = 6e^{-3x-2t}$

2. $U = 6e^{3x-2t}$

3. $U = 6e^{3x+2t}$

4. $U = 6e^{-3x+2t}$

Options :

68634051933. 1

68634051934. 2

68634051935. 3

68634051936. 4

Question Number : 84 Question Id : 68634013146 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

आंशिक अवकल समीकरण x

$$\frac{\partial u}{\partial x} = 2 \frac{\partial u}{\partial t} + U$$

यहाँ का $U(x, 0) = 6e^{-3x}$ का हल है

1. $U = 6e^{-3x-2t}$
2. $U = 6e^{3x-2t}$
3. $U = 6e^{3x+2t}$
4. $U = 6e^{-3x+2t}$

Options :

68634051933. 1
68634051934. 2
68634051935. 3
68634051936. 4

Question Number : 85 Question Id : 68634013147 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Skewing is used in Induction motor in order to reduce the torque due to:

1. Time harmonics
2. Space harmonics
3. Slot harmonics
4. Reverse rotating fields

Options :

68634051937. 1
68634051938. 2
68634051939. 3
68634051940. 4

Question Number : 85 Question Id : 68634013147 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

प्रेरक मोटर मे विषमत्तीय (स्क्वूइंग) का प्रयोग किसके द्वारा उत्पन्न बल आघूर्ण को कम करने के लिए किया जाता है।

1. काल हरात्मक (हार्मोनिक)
2. दिक्स्थान हरात्मक (हार्मोनिक)
3. खांया हरात्मक (हार्मोनिक)
4. विलोम घूर्णी क्षेत्र

Options :

68634051937. 1
68634051938. 2
68634051939. 3
68634051940. 4

Question Number : 86 Question Id : 68634013148 Question Type : MCQ Option Shuffling : No 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 cut-off frequency (f_2) of a second-order Butterworth filter

(Given $R_1 = 27 \text{ k}\Omega$, $R_F = 15.8 \text{ k}\Omega$, $R_2 = R_3 = 3.3 \text{ k}\Omega$ and $C_2 = C_3 = 0.047 \text{ }\mu\text{F}$.)

1. 1000 HZ
2. 100 HZ
3. 10 HZ
4. 1 HZ

Options :

68634051941. 1
68634051942. 2
68634051943. 3
68634051944. 4

Question Number : 86 Question Id : 68634013148 Question Type : MCQ Option Shuffling : No 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 द्वितीय क्रम बंटरवर्थ फिल्टर की अंतक आवृत्ति क्या होगी? दिया गया है: $R_1 = 27 \text{ k}\Omega$, $R_F = 15.8 \text{ k}\Omega$, $R_2 = R_3 = 3.3 \text{ k}\Omega$ और $C_2 = C_3 = 0.047 \text{ }\mu\text{F}$.)

1. 1000 HZ
2. 100 HZ
3. 10 HZ
4. 1 HZ

Options :

- 68634051941. 1
- 68634051942. 2
- 68634051943. 3
- 68634051944. 4

Question Number : 87 Question Id : 68634013149 Question Type : MCQ Option Shuffling : No 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 $V_1 = \sin(2\pi \times 10^3 t)$ sinusoidal signal is applied at the input of an op-amp differentiator circuit then the output voltage is given as:- (Given $R = 1.5 \text{ k}\Omega$ and $C = 0.1 \text{ }\mu\text{F}$).

- 1. $V_0 = 0.94 \cos(2\pi \times 10^3 t)$
- 2. $V_0 = -0.94 \cos(2\pi \times 10^3 t)$
- 3. $V_0 = -0.94 \sin(2\pi \times 10^3 t)$
- 4. $V_0 = 0.94 \sin(2\pi \times 10^3 t)$

Options :

- 68634051945. 1
- 68634051946. 2
- 68634051947. 3
- 68634051948. 4

Question Number : 87 Question Id : 68634013149 Question Type : MCQ Option Shuffling : No 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 $V_1 = \sin(2\pi \times 10^3 t)$, एक ज्यावक्रिय संकेत को एक op-amp अवकलक परिपथ के निवेश पर अनुप्रयुक्त किया जाता है तो निर्गम विमक्क्या होगी यदि $R = 1.5 \text{ k}\Omega$ और $C = 0.1 \text{ }\mu\text{F}$).

- 1. $V_0 = 0.94 \cos(2\pi \times 10^3 t)$
- 2. $V_0 = -0.94 \cos(2\pi \times 10^3 t)$
- 3. $V_0 = -0.94 \sin(2\pi \times 10^3 t)$
- 4. $V_0 = 0.94 \sin(2\pi \times 10^3 t)$

Options :

- 68634051945. 1
- 68634051946. 2
- 68634051947. 3
- 68634051948. 4

Question Number : 88 Question Id : 68634013150 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

Diameter of a wind turbine is 3m, width of blade 20cm and number of blades as 20. The solidity factor for this wind turbine is:

1. 0.0435
2. 4.25
3. 0.425
4. 0.0425

Options :

- 68634051949. 1
- 68634051950. 2
- 68634051951. 3
- 68634051952. 4

Question Number : 88 Question Id : 68634013150 Question Type : MCQ Option Shuffling : No 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 पवन (वायु) टरबाइन का व्यास 3 मीटर हैं, ब्लैड (पंखे) की चौड़ाई 20 से.मी. और ब्लैड (पंखो) की संख्या 20 है तो पवन टरबाइन का पिंडन गुणक (करक) हैं।

1. 0.0435
2. 4.25
3. 0.425
4. 0.0425

Options :

- 68634051949. 1
- 68634051950. 2
- 68634051951. 3
- 68634051952. 4

Question Number : 89 Question Id : 68634013151 Question Type : MCQ Option Shuffling : No 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 Ghawar oilfield discovered in 1948 is located in:

1. Iran
2. USA
3. Saudi Arabia
4. Iraq

Options :

- 68634051953. 1

68634051954. 2
68634051955. 3
68634051956. 4

Question Number : 89 Question Id : 68634013151 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

घवर तेल क्षेत्र जिसका अविष्कार 1948 में हुआ था, कहाँ स्थित हैं?

1. ईरान
2. यू एस ए
3. साउदी अरब
4. ईराक

Options :

68634051953. 1
68634051954. 2
68634051955. 3
68634051956. 4

Question Number : 90 Question Id : 68634013152 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

The Primary detector type transducers employed for displacement measurement are:

- A. Thermistor
- B. Diaphragm
- C. Thermocouple
- D. Pivot Torque
- E. Capacitive displacement transducer

Choose the correct answer from the options given below:

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

Options :

68634051957. 1
68634051958. 2
68634051959. 3
68634051960. 4

Question Number : 90 Question Id : 68634013152 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

प्रथमिक संसूचक प्रकार के ट्रान्सड्यूसर जिन्हे विस्थापन मापन के लिए नियुक्त किया जाता हैं। वे हैं

- A. ऊष्म प्रतिरोधक
- B. तनुपट (डायफ्राम)
- C. ताप वैद्युत-युग्म
- D. कीलक बल आघूर्ण
- E. धारिता विस्थापन ट्रान्सड्यूसर

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

- 68634051957. 1
- 68634051958. 2
- 68634051959. 3
- 68634051960. 4

Question Number : 91 Question Id : 68634013153 Question Type : MCQ Option Shuffling : No 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 motors) | | LIST II (Application) | |
|----------------------------|--|--------------------------|-------------------------|
| A. | Stepper motor | I. | Refrigerator compressor |
| B. | Universal motor | II. | Computer printer |
| C. | Shaded pole motor | III. | Sewing machine |
| D. | Capacitor and capacitor run Inductor motor | IV. | Photo coping machine |

Choose the correct answer from the options given below:

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

Options :

- 68634051961. 1
- 68634051962. 2
- 68634051963. 3
- 68634051964. 4

Question Number : 91 Question Id : 68634013153 Question Type : MCQ Option Shuffling : No 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 (मोटर के प्रकार) | | सूची II (अनप्रयोग) | |
|----------------------------|--|-----------------------|----------------------------|
| A. | स्टेपर मोटर | I. | रेफ्रिजरेटर संपीडित्र |
| B. | सर्वत्र मोटर | II. | कम्प्यूटर प्रिंटर |
| C. | छायामय पोल मोटर | III. | सिलाई की मशीन |
| D. | संघारित्र और संघारित्र द्वारा चलाए जाने वाली प्रेरक मोटर | IV. | फोटो कापी (प्रतिलिपी) मशीन |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634051961. 1
68634051962. 2
68634051963. 3
68634051964. 4

Question Number : 92 Question Id : 68634013154 Question Type : MCQ Option Shuffling : No 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 SCR Rating | | LIST II Protective element | |
|----------------------|----------------------------|-------------------------------|----------------|
| A. | di/dt limit | I. | Snubber |
| B. | dv/dt limit | II. | Heat Sink |
| C. | i^2t limit | III. | Series Reactor |
| D. | Junction Temperature Limit | IV. | Fuse |

Choose the correct answer from the options given below:

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

Options :

68634051965. 1
68634051966. 2
68634051967. 3
68634051968. 4

**Question Number : 92 Question Id : 68634013154 Question Type : MCQ Option Shuffling : No 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. | di/dt सीमा | I. | प्रदूषित उर्जा अवशोषक |
| B. | dv/dt सीमा | II. | ऊष्मा अभिगम |
| C. | i^2t सीमा | III. | श्रेणी रिऐक्टर |
| D. | संधिस्थान तापमान सीमा | IV. | संयोजन |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634051965. 1
68634051966. 2
68634051967. 3
68634051968. 4

**Question Number : 93 Question Id : 68634013155 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 4 Wrong Marks : 1**

The correct statements are:

- A. Energy payback time (EPBT) should be less than life of PV System
- B. Life cycle conversion efficiency (LCCE) should be less than one
- C. Energy production factor (CEPF) on life time basis should be more than one
- D. Carbon emission is more if electrical power is generated by PV in comparison to the electrical power generated by conventional power plant

Choose the correct answer from the options given below:

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

Options :

- 68634051969. 1
- 68634051970. 2
- 68634051971. 3
- 68634051972. 4

Question Number : 93 Question Id : 68634013155 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

सही कथन चुनिए:

- A. उर्जा भुगतान समय (EPBT), PV तंत्र के जीवन से कम होना चाहिए।
- B. जीवन चक्र रूपांतरण दक्षता (LCCE), 1 से कम होनी चाहिए
- C. ऊर्जा उत्पादन कारक (CEPF), जीवन काल के आधार पर 1 से अधिक होना चाहिए।
- D. पारंपारिक उर्जा सयंत्र द्वारा उत्पन्न वैद्युत उर्जा की तुलना में, PV द्वारा उत्पन्न वैद्युत उर्जा में कार्बन का उत्सर्जन अधिक होता है।

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

- 68634051969. 1
- 68634051970. 2
- 68634051971. 3
- 68634051972. 4

Question Number : 94 Question Id : 68634013156 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

Consider the correct statements:

- A. Both voltage source inverter and current source inverter require feed back diode.
- B. Only current source inverter require feedback.
- C. GTO can not be used in a current source inverter.
- D. Only voltage source inverter requires feedback diode.

Choose the correct answer from the options given below:

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

Options :

- 68634051973. 1
- 68634051974. 2
- 68634051975. 3
- 68634051976. 4

Question Number : 94 Question Id : 68634013156 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 4 Wrong Marks : 1

सही कथन चुनिए।

- A. दोनों विभव स्रोत प्रतिलोमक और स्रोत प्रतिलोमक को पुनर्भरण डायोड की आवश्यकता होती हैं
- B. केवल धारा स्रोत प्रतिलोमक पुनर्भरण डायोड की आवश्यकता होती है।
- C. GTO का धारा स्रोत प्रतिलोमक में प्रयोग नहीं किया जा सकता
- D. केवल विभव स्रोत प्रतिलोमक में पुनर्भरण डायोड की आवश्यकता होती है।

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

- 68634051973. 1
- 68634051974. 2
- 68634051975. 3
- 68634051976. 4

Question Number : 95 Question Id : 68634013157 Question Type : MCQ Option Shuffling : No 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 eigenvectors of the matrix are:

$$A = \begin{pmatrix} i & 1 \\ 2 & -i \end{pmatrix}$$

1. $\left\{ \begin{pmatrix} 1 \\ 1-i \end{pmatrix}, \begin{pmatrix} 1 \\ 1+i \end{pmatrix} \right\}$

2. $\left\{ \begin{pmatrix} 1 \\ 1-i \end{pmatrix}, \begin{pmatrix} 1 \\ -1-i \end{pmatrix} \right\}$

3. $\left\{ \begin{pmatrix} 1+i \\ -1 \end{pmatrix}, \begin{pmatrix} 1 \\ 1+i \end{pmatrix} \right\}$

4. $\left\{ \begin{pmatrix} 2+i \\ 1 \end{pmatrix}, \begin{pmatrix} 1 \\ 3-i \end{pmatrix} \right\}$

Options :

68634051977. 1

68634051978. 2

68634051979. 3

68634051980. 4

Question Number : 95 Question Id : 68634013157 Question Type : MCQ Option Shuffling : No 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 के अमिलक्षणिक सदिश क्या हैं?

$$A = \begin{pmatrix} i & 1 \\ 2 & -i \end{pmatrix}$$

1. $\left\{ \begin{pmatrix} 1 \\ 1-i \end{pmatrix}, \begin{pmatrix} 1 \\ 1+i \end{pmatrix} \right\}$

2. $\left\{ \begin{pmatrix} 1 \\ 1-i \end{pmatrix}, \begin{pmatrix} 1 \\ -1-i \end{pmatrix} \right\}$

3. $\left\{ \begin{pmatrix} 1+i \\ -1 \end{pmatrix}, \begin{pmatrix} 1 \\ 1+i \end{pmatrix} \right\}$

4. $\left\{ \begin{pmatrix} 2+i \\ 1 \end{pmatrix}, \begin{pmatrix} 1 \\ 3-i \end{pmatrix} \right\}$

Options :

68634051977. 1

68634051978. 2
68634051979. 3
68634051980. 4

Question Number : 96 Question Id : 68634013158 Question Type : MCQ Option Shuffling : No 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 classification of oscillators on the basis of frequency range over which they are used.

| LIST I (Type of Oscillators) | | LIST II (Frequency Range) | |
|---------------------------------|----------------------------------|------------------------------|-----------------|
| A. | Audio Frequency (AF) oscillators | I. | 20 KHZ - 30MHZ |
| B. | Radio frequency (RF) oscillators | II. | 1.5 MHZ - 30MHZ |
| C. | Video frequency (VF) oscillators | III. | 20HZ - 20KHZ |
| D. | High frequency (HF) oscillators | IV. | dc - 5MHZ |

Choose the correct answer from the options given below:

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

Options :

68634051981. 1
68634051982. 2
68634051983. 3
68634051984. 4

Question Number : 96 Question Id : 68634013158 Question Type : MCQ Option Shuffling : No 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 के प्रकार) | | सूची II (आवृत्ति परिसर) | |
|----------------------------|--------------------------|----------------------------|-----------------|
| A. | श्रव्य आवृत्ति दोलक (AF) | I. | 20 KHZ - 30MHZ |
| B. | रेडियो आवृत्ति दोलक (RF) | II. | 1.5 MHZ - 30MHZ |
| C. | वीडियो आवृत्ति दोलक (VF) | III. | 20HZ - 20KHZ |
| D. | उच्च आवृत्ति दोलक (HF) | IV. | dc - 5MHZ |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634051981. 1
68634051982. 2
68634051983. 3
68634051984. 4

Question Number : 97 Question Id : 68634013159 Question Type : MCQ Option Shuffling : No 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 Response) | | LIST II (Condition for Response) | |
|--------------------------------|-----------------------|-------------------------------------|---|
| A. | Steady-state response | I. | Sum of steady- state and transient response |
| B. | Transient response | II. | Response of a system for impulse input |
| C. | Total response | III. | Part of response which approaches zero as $t \rightarrow \infty$ |
| D. | Impulse response | IV. | Part of response which does not approach zero as $t \rightarrow \infty$ |

Choose the correct answer from the options given below:

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

Options :

68634051985. 1
68634051986. 2

68634051987. 3
68634051988. 4

**Question Number : 97 Question Id : 68634013159 Question Type : MCQ Option Shuffling : No 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 (अनुक्रिया का प्रकृति) | | सूची II (अनुक्रिया की स्थिति) | |
|----------------------------------|-------------------------|----------------------------------|--|
| A. | स्थायी अवस्था अनुक्रिया | I. | स्थायी अवस्था और सत्पस्थायी अनुक्रिया का योग |
| B. | अल्पस्थायी अनुक्रिया | II. | एक तंत्र की आवेगी निवेश के लिए अनुक्रिया |
| C. | कुल अनुक्रिया | III. | अनुक्रिया का वह मान जो शून्य को उपगमन करता है जब $t \rightarrow \infty$ |
| D. | आवेगी अनुक्रिया | IV. | अनुक्रिया का वह मान जो शून्य का उपगमन नहीं करता है जब $t \rightarrow \infty$ |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634051985. 1
68634051986. 2
68634051987. 3
68634051988. 4

**Question Number : 98 Question Id : 68634013160 Question Type : MCQ Option Shuffling : No 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 1- ϕ rectifier topology feeding resistive load | | LIST II Output Voltage | |
|---|------------------------|---------------------------|---|
| A. | Controlled half wave | I. | $\frac{2V_{peak}}{\pi} \cos \alpha$ |
| B. | Semi-controlled | II. | $\frac{V_{peak}}{\pi}$ |
| C. | Controlled full wave | III. | $\frac{V_{peak}}{\pi} (1 + \cos \alpha)$ |
| D. | Uncontrolled-half wave | IV. | $\frac{V_{peak}}{2\pi} (1 + \cos \alpha)$ |

Choose the correct answer from the options given below:

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

Options :

68634051989. 1
 68634051990. 2
 68634051991. 3
 68634051992. 4

Question Number : 98 Question Id : 68634013160 Question Type : MCQ Option Shuffling : No 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 (1- ϕ - दिष्टकारी सांस्थिकी संमरण प्रतिरोधी लोड) | | सूची II | |
|---|---------------------|---------|---|
| A. | नियंत्रण अर्धतरंग | I. | $\frac{2V_{peak}}{\pi} \cos \alpha$ |
| B. | अर्ध नियंत्रण | II. | $\frac{V_{peak}}{\pi}$ |
| C. | नियंत्रण पूर्ण तरंग | III. | $\frac{V_{peak}}{\pi} (1 + \cos \alpha)$ |
| D. | अनियंत्रित अर्धतरंग | IV. | $\frac{V_{peak}}{2\pi} (1 + \cos \alpha)$ |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634051989. 1
68634051990. 2
68634051991. 3
68634051992. 4

Question Number : 99 Question Id : 68634013161 Question Type : MCQ Option Shuffling : No 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 HVDC transmission Line the auxiliary components are:

- A. D.C Line inductor
- B. A.C Line inductor
- C. Series capacitance on A.C line
- D. Distance relays on D.C. line
- E. Reactive power sources

Choose the correct answer from the options given below:

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

Options :

- 68634051993. 1
- 68634051994. 2
- 68634051995. 3
- 68634051996. 4

Question Number : 99 Question Id : 68634013161 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Wrong Marks : 1

HVDC वितरण लाइन के लिए, सहायक कारक हैं:

- A. D.C लाइन प्रेरक
- B. A.C लाइन प्रेरक
- C. क्षणीक्रम धारिता, A.C लाइन
- D. D.C. लाइन पर दूरी रिले (प्रतिसरण)
- E. अभिक्रिया शील उर्जा (शक्ति) स्रोत

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

- 68634051993. 1
- 68634051994. 2
- 68634051995. 3
- 68634051996. 4

Question Number : 100 Question Id : 68634013162 Question Type : MCQ Option Shuffling : No 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. | 1973 oil crisis | I. | The Gulf War |
| B. | 1979 energy crisis | II. | The Iranian revolution |
| C. | 1990 spike in the price of oil | III. | An OPEC oil export embargo |
| D. | 2000-2001 California electricity crisis | IV. | Failed deregulation and business corruption |

Choose the correct answer from the options given below:

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

Options :

68634051997. 1
68634051998. 2
68634051999. 3
68634052000. 4

Question Number : 100 Question Id : 68634013162 Question Type : MCQ Option Shuffling : No 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. | 1973 तेल संकट | I. | खाड़ी युद्ध |
| B. | 1979 उर्जा संकट | II. | ईरान की क्रांति |
| C. | तेल के मूल्य में 1990 में तीव्र वृद्धि | III. | एक OPEC तेल निर्यात प्रतिरोध (निषेध) |
| D. | 2000-2001, कैलिफोर्निया वैद्युत संकट | IV. | व्यापार भ्रष्टाचार और विनियमितकरण में असफलता |

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

68634051997. 1
68634051998. 2
68634051999. 3
68634052000. 4