

## Junior Engineer Civil Mechanical and Electrical Examination 2024 Paper I

Roll Number	
Candidate Name	
Venue Name	
Exam Date	05/06/2024
Exam Time	5:00 PM - 7:00 PM
Subject	Junior Engineer 2024 Electrical Paper I

### Section : General Intelligence and Reasoning

**Q.1** The position of how many letters will remain unchanged if each of the letters in the word CLOSURE is arranged in the English alphabetical order?

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

Question ID : 630680449454  
Option 1 ID : 6306801754941  
Option 2 ID : 6306801754942  
Option 3 ID : 6306801754943  
Option 4 ID : 6306801754944  
Status : Answered  
Chosen Option : 1

**Q.2** HGCA is related to LKGE in a certain way based on the English alphabetical order. In the same way, BKOM is related to FOSQ. To which of the following is NSJD related, following the same logic?

- Ans  1. PLNH  
 2. HSRD  
 3. LPRY  
 4. RWNH

Question ID : 630680377695  
Option 1 ID : 6306801471840  
Option 2 ID : 6306801471841  
Option 3 ID : 6306801471842  
Option 4 ID : 6306801471839  
Status : Answered  
Chosen Option : 4

**Q.3** L, M, N, O, P and Q are sitting around a circular table facing the centre (not necessarily in the same order). M is sitting to the immediate right of Q. L is sitting to the immediate left of O. Q is sitting to the immediate right of O. P is sitting to the immediate left of L. Who is sitting to the immediate right of M?

- Ans  1. P  
 2. O  
 3. N  
 4. L

Question ID : 630680377009  
Option 1 ID : 6306801469100  
Option 2 ID : 6306801469102  
Option 3 ID : 6306801469099  
Option 4 ID : 6306801469101  
Status : Answered  
Chosen Option : 3

**Q.4** What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
HNL, JPN, LRP, NTR, ?

- Ans
- 1. VPT
  - 2. PTV
  - 3. VTP
  - 4. PVT

Question ID : 630680376921  
Option 1 ID : 6306801468747  
Option 2 ID : 6306801468749  
Option 3 ID : 6306801468748  
Option 4 ID : 6306801468750  
Status : Answered  
Chosen Option : 4

**Q.5** Rahul walked 20 m towards the north. Then he turned right and walked 20 m. Then he turned right and walked 10 m. He then turned right and walked 10 m. In what direction is he headed?

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

Question ID : 630680377025  
Option 1 ID : 6306801469165  
Option 2 ID : 6306801469166  
Option 3 ID : 6306801469164  
Option 4 ID : 6306801469163  
Status : Answered  
Chosen Option : 2

**Q.6** Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(12, 8, 28)  
(34, 9, 52)

- Ans
- 1. (62, 11, 84)
  - 2. (15, 25, 60)
  - 3. (49, 12, 71)
  - 4. (54, 13, 70)

Question ID : 630680376812  
Option 1 ID : 6306801468312  
Option 2 ID : 6306801468314  
Option 3 ID : 6306801468313  
Option 4 ID : 6306801468311  
Status : Answered  
Chosen Option : 1

Q.7 In a Zoological park, seven giraffes L, M, R, E, V, Z and Y have different heights. R is taller than E but shorter than Y. Z is taller than M but shorter than V. L is taller than R but shorter than V. Y is shorter than M but taller than E. M is shorter than Z. Which among the seven is the shortest?

Ans  1. E

2. L

3. Y

4. R

Question ID : 630680519091

Option 1 ID : 6306802028825

Option 2 ID : 6306802028826

Option 3 ID : 6306802028824

Option 4 ID : 6306802028827

Status : Answered

Chosen Option : 1

Q.8 TILE is related to VLNH in a certain way based on the English alphabetical order. In the same way, RAMP is related to TDOS. To which of the following is SORT related, following the same logic?

Ans  1. URTW

2. VRTV

3. VRTW

4. URTV

Question ID : 630680376876

Option 1 ID : 6306801468569

Option 2 ID : 6306801468567

Option 3 ID : 6306801468570

Option 4 ID : 6306801468568

Status : Answered

Chosen Option : 1

Q.9 What will come in place of the question mark (?) in the following equation if '+' and '-' are interchanged?  
 $63 \div 9 - 14 \times 11 + 28 = ?$

Ans  1. 129

2. 138

3. 133

4. 135

Question ID : 630680376973

Option 1 ID : 6306801468958

Option 2 ID : 6306801468957

Option 3 ID : 6306801468955

Option 4 ID : 6306801468956

Status : Answered

Chosen Option : 3

**Q.10** Select the correct option that indicates the arrangement of the following words in a logical and meaningful order.

1. House
2. Curtain
3. Window
4. Room
5. Wall

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

Question ID : 630680565853  
Option 1 ID : 6306802212378  
Option 2 ID : 6306802212376  
Option 3 ID : 6306802212379  
Option 4 ID : 6306802212377  
Status : Answered  
Chosen Option : 3

**Q.11** What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
RJG, NFC, JBY, FXU, ?

- Ans
- 1. BSQ
  - 2. ATP
  - 3. ATQ
  - 4. BTQ

Question ID : 630680376692  
Option 1 ID : 6306801467833  
Option 2 ID : 6306801467834  
Option 3 ID : 6306801467831  
Option 4 ID : 6306801467832  
Status : Answered  
Chosen Option : 4

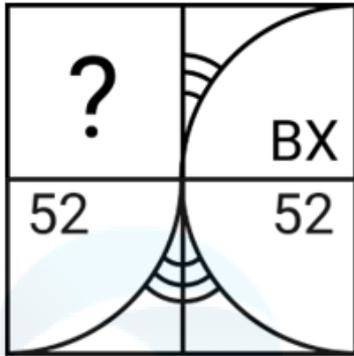
**Q.12** Select the correct option that indicates the arrangement of the following words in a logical and meaningful order.

1. School
2. Graduation
3. Birth
4. Doctorate
5. Under-graduation

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

Question ID : 630680395039  
Option 1 ID : 6306801540424  
Option 2 ID : 6306801540425  
Option 3 ID : 6306801540426  
Option 4 ID : 6306801540427  
Status : Answered  
Chosen Option : 1

Q.13 Select the figure from the options that can replace the question mark (?) and complete the given pattern.



Ans

✗ 1.



✗ 2.



✓ 3.



✗ 4.



Question ID : 630680524806

Option 1 ID : 6306802051323

Option 2 ID : 6306802051326

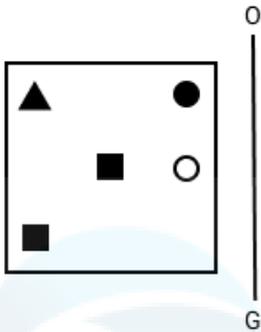
Option 3 ID : 6306802051324

Option 4 ID : 6306802051325

Status : Answered

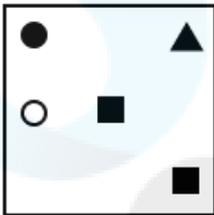
Chosen Option : 3

Q.14 Select the correct mirror image of the given figure when the mirror is placed at OG as shown below.

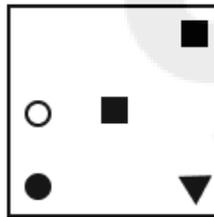


Ans

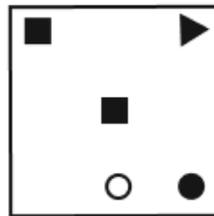
✓ 1.



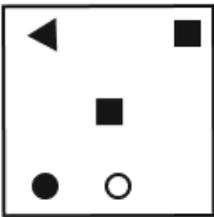
✗ 2.



✗ 3.



✗ 4.



Question ID : 630680462563

Option 1 ID : 6306801806455

Option 2 ID : 6306801806456

Option 3 ID : 6306801806457

Option 4 ID : 6306801806458

Status : Answered

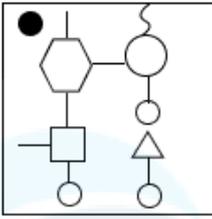
Chosen Option : 1

Q.15 Select the option figure in which the given figure is embedded as its part (rotation is NOT allowed).

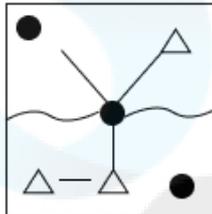


Ans

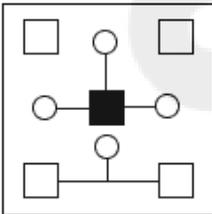
✗ 1.



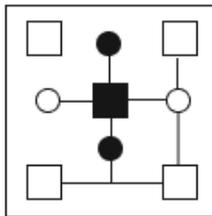
✗ 2.



✗ 3.



✓ 4.



Question ID : 630680422226

Option 1 ID : 6306801647340

Option 2 ID : 6306801647341

Option 3 ID : 6306801647342

Option 4 ID : 6306801647343

Status : Answered

Chosen Option : 4

Q.16 In a certain code language,  
 'A + B' means 'A is the mother of B',  
 'A - B' means 'A is the brother of B',  
 'A × B' means 'A is the wife of B', and  
 'A ÷ B' means 'A is the father of B'.  
 How is T related to O if 'P + N - S ÷ O + M × T'?

Ans ✗ 1. Son's son

✗ 2. Son

✓ 3. Daughter's husband

✗ 4. Daughter's son

Question ID : 630680378714

Option 1 ID : 6306801475905

Option 2 ID : 6306801475903

Option 3 ID : 6306801475904

Option 4 ID : 6306801475906

Status : Answered

Chosen Option : 3

Q.17 Which of the following numbers will replace the question mark (?) in the given series?  
30, 31, 36, 45, 62, ?

- Ans  1. 88  
 2. 87  
 3. 85  
 4. 90

Question ID : 630680389945  
Option 1 ID : 6306801520238  
Option 2 ID : 6306801520239  
Option 3 ID : 6306801520241  
Option 4 ID : 6306801520240  
Status : Answered  
Chosen Option : 2

Q.18 Select the word-pair that best represents a similar relationship to the one expressed in the pair of words given below.  
(The words must be considered as meaningful English words and must not be related to each other based on the number of letters/number of consonants/vowels in the word.)

Cockroach : Nymph

- Ans  1. Sheep : Fawn  
 2. Bear : Foal  
 3. Swan : Cygnet  
 4. Horse : Chick

Question ID : 630680565343  
Option 1 ID : 6306802210348  
Option 2 ID : 6306802210349  
Option 3 ID : 6306802210346  
Option 4 ID : 6306802210347  
Status : Answered  
Chosen Option : 3

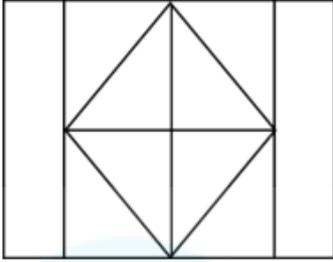
Q.19 42 is related to 21 following a certain logic. Following the same logic, 26 is related to 13. To which of the following is 68 related following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

- Ans  1. 30  
 2. 32  
 3. 34  
 4. 36

Question ID : 630680396687  
Option 1 ID : 6306801546836  
Option 2 ID : 6306801546837  
Option 3 ID : 6306801546838  
Option 4 ID : 6306801546839  
Status : Answered  
Chosen Option : 3

Q.20 How many triangles are there in the given figure?



- Ans
- 1. 14
  - 2. 12
  - 3. 18
  - 4. 16

Question ID : 630680524408  
Option 1 ID : 6306802049732  
Option 2 ID : 6306802049731  
Option 3 ID : 6306802049734  
Option 4 ID : 6306802049733  
Status : Answered  
Chosen Option : 4

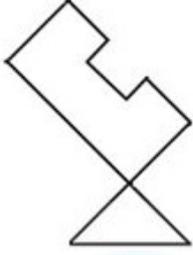
Q.21 Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)  
(120, 96, 54)  
(108, 84, 42)

- Ans
- 1. (128, 96, 60)
  - 2. (92, 68, 40)
  - 3. (116, 92, 62)
  - 4. (124, 100, 58)

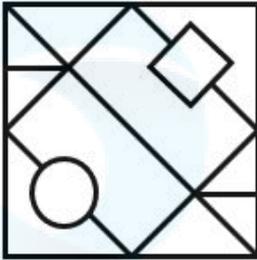
Question ID : 630680388984  
Option 1 ID : 6306801516401  
Option 2 ID : 6306801516400  
Option 3 ID : 6306801516399  
Option 4 ID : 6306801516398  
Status : Not Answered  
Chosen Option : --

Q.22 Select the option in which the given figure is embedded (rotation is NOT allowed).

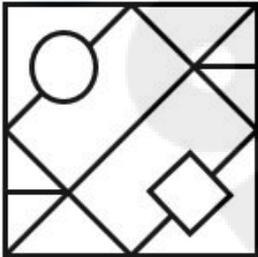


Ans

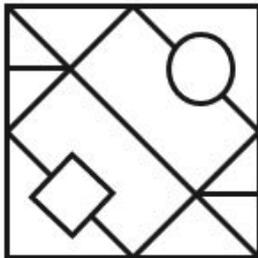
✓ 1.



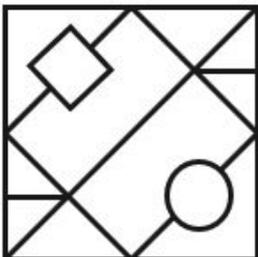
✗ 2.



✗ 3.



✗ 4.



Question ID : 630680524480

Option 1 ID : 6306802050021

Option 2 ID : 6306802050022

Option 3 ID : 6306802050019

Option 4 ID : 6306802050020

Status : Answered

Chosen Option : 1

Q.23 FJGK is related to HLIM in a certain way based on the English alphabetical order. In the same way, IMJN is related to KOLP. To which of the following is OSPT related, following the same logic?

- Ans
- 1. QUVR
  - 2. QVUR
  - 3. QURV
  - 4. QVRU

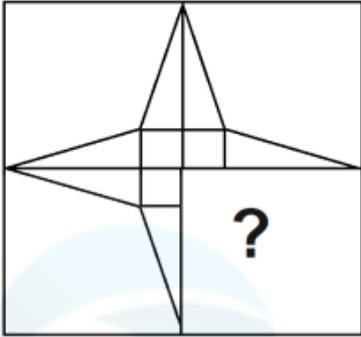
Question ID : 630680376718  
Option 1 ID : 6306801467937  
Option 2 ID : 6306801467935  
Option 3 ID : 6306801467938  
Option 4 ID : 6306801467936  
Status : Answered  
Chosen Option : 3

Q.24 In a certain code language, 'HIDE' is coded as '3795' and 'DOWN' is coded as '4287'. What is the code for 'D' in the given code language?

- Ans
- 1. 4
  - 2. 2
  - 3. 9
  - 4. 7

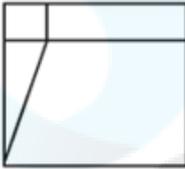
Question ID : 630680377192  
Option 1 ID : 6306801469831  
Option 2 ID : 6306801469834  
Option 3 ID : 6306801469832  
Option 4 ID : 6306801469833  
Status : Answered  
Chosen Option : 4

Q.25 Select the option figure that will replace the question mark (?) in the figure given below to complete the pattern.

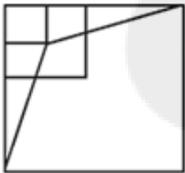


Ans

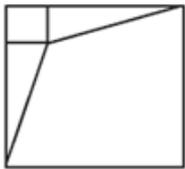
1.



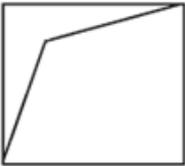
2.



3.



4.



Question ID : 630680525607

Option 1 ID : 6306802054513

Option 2 ID : 6306802054512

Option 3 ID : 6306802054514

Option 4 ID : 6306802054515

Status : Answered

Chosen Option : 3

Q.26 Aishwarya starts from her office in north direction. She turns to her left then to her right and finally after walking some more, she turns to her left. In which direction is she facing now?

Ans  1. East

2. West

3. North

4. South

Question ID : 630680385560

Option 1 ID : 6306801503020

Option 2 ID : 6306801503018

Option 3 ID : 6306801503019

Option 4 ID : 6306801503021

Status : Answered

Chosen Option : 2

Q.27 In a certain code language, 'TAKERS' is coded as '045%^1' and 'TALKER' is coded as '1\*450%'. What is the code for 'L' in the given code language?

- Ans
- 1. 0
  - 2. \*
  - 3. ^
  - 4. 5

Question ID : 630680384343  
Option 1 ID : 6306801498260  
Option 2 ID : 6306801498259  
Option 3 ID : 6306801498258  
Option 4 ID : 6306801498261  
Status : Answered  
Chosen Option : 2

Q.28 Select the option in which the numbers share the same relationship as that shared by the given pairs of numbers.

100 : 20

60 : 12

(NOTE: Operations should be performed on the whole number, without breaking down the numbers into its constituent digits. E.g. 13- Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is NOT allowed.)

- Ans
- 1. 120 : 12
  - 2. 54 : 6
  - 3. 45 : 9
  - 4. 144 : 12

Question ID : 630680387169  
Option 1 ID : 6306801509371  
Option 2 ID : 6306801509370  
Option 3 ID : 6306801509373  
Option 4 ID : 6306801509372  
Status : Answered  
Chosen Option : 3

Q.29 What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
SVX, QTV, ORT, MPR, ?

- Ans
- 1. LOR
  - 2. NRP
  - 3. KNP
  - 4. KMP

Question ID : 630680379935  
Option 1 ID : 6306801480776  
Option 2 ID : 6306801480778  
Option 3 ID : 6306801480775  
Option 4 ID : 6306801480777  
Status : Answered  
Chosen Option : 3

**Q.30** In a certain code language, 'BANISH' is coded as '9' and 'AMORPHOUS' is coded as '12'. What is the code for 'AMNESTY' in the given language?

- Ans
- 1. 16
  - 2. 10
  - 3. 11
  - 4. 9

Question ID : 630680375916  
Option 1 ID : 6306801464738  
Option 2 ID : 6306801464735  
Option 3 ID : 6306801464736  
Option 4 ID : 6306801464737  
Status : Answered  
Chosen Option : 4

**Q.31** In a certain code language,  
'A + B' means 'A is the mother of B',  
'A = B' means 'A is the brother of B',  
'A × B' means 'A is the wife of B' and  
'A > B' means 'A is the father of B'.  
How is P related to T if 'P + Q × R > S = T'?

- Ans
- 1. Father's mother's sister
  - 2. Mother's sister
  - 3. Father's mother
  - 4. Mother's mother

Question ID : 630680376685  
Option 1 ID : 6306801467806  
Option 2 ID : 6306801467804  
Option 3 ID : 6306801467805  
Option 4 ID : 6306801467803  
Status : Answered  
Chosen Option : 4

**Q.32** The position(s) of how many letters will remain unchanged if each of the letters in the word 'HANGOVER' is arranged in alphabetical order?

- Ans
- 1. Two
  - 2. Three
  - 3. Four
  - 4. Zero

Question ID : 630680375960  
Option 1 ID : 6306801464911  
Option 2 ID : 6306801464912  
Option 3 ID : 6306801464914  
Option 4 ID : 6306801464913  
Status : Answered  
Chosen Option : 4

**Q.33** Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion(s) logically follow(s) from the statements.

Statements: Some pens are red. All red are blue.

Conclusion 1: All pens are blue.

Conclusion 2: Some pens are not red.

- Ans
- 1. Only conclusion 1 follows
  - 2. Both conclusion 1 and 2 follow
  - 3. Only conclusion 2 follows
  - 4. Neither conclusion 1 nor 2 follows

Question ID : 630680381041  
Option 1 ID : 6306801485139  
Option 2 ID : 6306801485142  
Option 3 ID : 6306801485140  
Option 4 ID : 6306801485141  
Status : Answered  
Chosen Option : 4

**Q.34** MK 4 is related to OM 2 in a certain way. In the same way, QS 6 is related to SU 3. To which of the following is XU 8 related, following the same logic?

- Ans
- 1. ZW 4
  - 2. XE 7
  - 3. ST 5
  - 4. GX 5

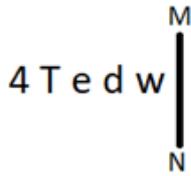
Question ID : 630680378692  
Option 1 ID : 6306801475817  
Option 2 ID : 6306801475816  
Option 3 ID : 6306801475818  
Option 4 ID : 6306801475815  
Status : Answered  
Chosen Option : 1

**Q.35** 16 is related to 225 following a certain logic. Following the same logic, 7 is related to 99. To which of the following is 11 related following the same logic?  
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

- Ans
- 1. 155
  - 2. 159
  - 3. 158
  - 4. 150

Question ID : 630680451716  
Option 1 ID : 6306801763950  
Option 2 ID : 6306801763951  
Option 3 ID : 6306801763952  
Option 4 ID : 6306801763953  
Status : Answered  
Chosen Option : 1

Q.36 Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



- Ans
- 1. m d e T 4
  - 2. w b e T 4
  - 3. w b e 4 T
  - 4. m p e l t

Question ID : 630680524859  
Option 1 ID : 6306802051536  
Option 2 ID : 6306802051537  
Option 3 ID : 6306802051535  
Option 4 ID : 6306802051538  
Status : Answered  
Chosen Option : 2

Q.37 What should come in place of the question mark (?) in the given series?  
25, 30, 40, 55, 75, ?

- Ans
- 1. 95
  - 2. 100
  - 3. 90
  - 4. 105

Question ID : 630680377719  
Option 1 ID : 6306801471936  
Option 2 ID : 6306801471937  
Option 3 ID : 6306801471935  
Option 4 ID : 6306801471938  
Status : Answered  
Chosen Option : 2

Q.38 What should come in place of the question mark (?) in the given series based on the English alphabetical order?

MGA, HBV, CWQ, XRL, ?

- Ans
- 1. SGM
  - 2. SMG
  - 3. GMS
  - 4. GSM

Question ID : 630680528607  
Option 1 ID : 6306802066437  
Option 2 ID : 6306802066438  
Option 3 ID : 6306802066439  
Option 4 ID : 6306802066440  
Status : Answered  
Chosen Option : 2

**Q.39** Which two numbers should be interchanged to make the given equation correct?  
 $(176 \div 4) + (22 \times 8) - (2 \times 20) = 70$   
(Note: Interchange should be done of entire number and not individual digits of a given number)

Ans  1. 4 and 8

2. 2 and 4

3. 22 and 20

4. 2 and 8

Question ID : 630680378794

Option 1 ID : 6306801476225

Option 2 ID : 6306801476226

Option 3 ID : 6306801476224

Option 4 ID : 6306801476223

Status : Answered

Chosen Option : 1

**Q.40** What should come in place of the question mark (?) in the given series?  
14, 19, 29, 44, 64, ?

Ans  1. 89

2. 88

3. 84

4. 82

Question ID : 630680377841

Option 1 ID : 6306801472426

Option 2 ID : 6306801472425

Option 3 ID : 6306801472424

Option 4 ID : 6306801472423

Status : Answered

Chosen Option : 1

**Q.41** 42 is related to 14 following a certain logic. Following the same logic, 33 is related to 11. To which of the following is 75 related following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

Ans  1. 15

2. 25

3. 35

4. 45

Question ID : 630680396935

Option 1 ID : 6306801547804

Option 2 ID : 6306801547805

Option 3 ID : 6306801547806

Option 4 ID : 6306801547807

Status : Answered

Chosen Option : 2

**Q.42** Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. You have to decide which conclusion/s logically follow/s from the given statements.

**Statements:** Some horses are rocks. Some rocks are leaves. No rock is a tree.

**Conclusions:**

(I) No horse is a tree.

(II) At least some leaves are trees.

- Ans**
- 1. Only conclusion (II) follows.
  - 2. Neither conclusion (I) nor (II) follows.
  - 3. Only conclusion (I) follows.
  - 4. Both conclusions (I) and (II) follow.

Question ID : 630680376863  
Option 1 ID : 6306801468516  
Option 2 ID : 6306801468517  
Option 3 ID : 6306801468515  
Option 4 ID : 6306801468518  
Status : Answered  
Chosen Option : 1

**Q.43** In a certain code language, 'he was good' is coded as 'ik bu oy' and 'was she there' is coded as 'bu ha no'. How is 'was' coded in the given language?

- Ans**
- 1. bu
  - 2. ha
  - 3. ik
  - 4. no

Question ID : 630680377688  
Option 1 ID : 6306801471811  
Option 2 ID : 6306801471814  
Option 3 ID : 6306801471812  
Option 4 ID : 6306801471813  
Status : Answered  
Chosen Option : 1

**Q.44** If A means +, B means -, C means  $\times$  and D means  $\div$ , then what will come in place of the question mark (?) in the following equation?  
21 A 18 D 2 B 3 C 5 = ?

- Ans**
- 1. 14
  - 2. 15
  - 3. 17
  - 4. 16

Question ID : 630680376942  
Option 1 ID : 6306801468832  
Option 2 ID : 6306801468831  
Option 3 ID : 6306801468834  
Option 4 ID : 6306801468833  
Status : Answered  
Chosen Option : 2

Q.45 KSNJ is related to MUPL in a certain way based on the English alphabetical order. In the same way, NVQM is related to PXSO. To which of the following is EMHD related, following the same logic?

- Ans  1. GOJF  
 2. GOFJ  
 3. OGJF  
 4. OGFJ

Question ID : 630680444383  
Option 1 ID : 6306801734808  
Option 2 ID : 6306801734809  
Option 3 ID : 6306801734810  
Option 4 ID : 6306801734811  
Status : Answered  
Chosen Option : 1

Q.46 What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
STA, WXE, ABI, EFM, ?

- Ans  1. IJQ  
 2. JPS  
 3. JIS  
 4. KKP

Question ID : 630680382498  
Option 1 ID : 6306801490907  
Option 2 ID : 6306801490910  
Option 3 ID : 6306801490909  
Option 4 ID : 6306801490908  
Status : Answered  
Chosen Option : 1

Q.47 What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
HLP, TXB, FJN, RVZ, DHL, ?

- Ans  1. PTY  
 2. QTY  
 3. QSX  
 4. PTX

Question ID : 630680378630  
Option 1 ID : 6306801475567  
Option 2 ID : 6306801475568  
Option 3 ID : 6306801475569  
Option 4 ID : 6306801475570  
Status : Answered  
Chosen Option : 4

Q.48 What will come in place of the question mark (?) in the following equation if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$20 \times 5 - 13 + 3 \div 4 = ?$$

- Ans
- 1. 12
  - 2. 5
  - 3. 10
  - 4. 7

Question ID : 630680376798  
Option 1 ID : 6306801468258  
Option 2 ID : 6306801468255  
Option 3 ID : 6306801468257  
Option 4 ID : 6306801468256  
Status : Answered  
Chosen Option : 2

Q.49 L, M, N, O, P, Q, and R are sitting around a circular table, facing the centre. L sits second to the right of M. N sits third to the right of L. O sits second to the left of N. P is not an immediate neighbour of N. Q sits to the immediate right of O. How many people are sitting between L and R when counted from the left of L?

- Ans
- 1. Zero
  - 2. One
  - 3. Three
  - 4. Two

Question ID : 630680377644  
Option 1 ID : 6306801471635  
Option 2 ID : 6306801471636  
Option 3 ID : 6306801471638  
Option 4 ID : 6306801471637  
Status : Answered  
Chosen Option : 4

Q.50 GKHL is related to IMJN in a certain way based on the English alphabetical order. In the same way, KOLP is related to MQNR. To which of the following is NROS related, following the same logic?

- Ans
- 1. TPQU
  - 2. PTQU
  - 3. TPUQ
  - 4. PTUQ

Question ID : 630680376569  
Option 1 ID : 6306801467343  
Option 2 ID : 6306801467346  
Option 3 ID : 6306801467344  
Option 4 ID : 6306801467345  
Status : Answered  
Chosen Option : 2

Section : General Awareness

**Q.1 What was the main objection against the Directive Principles of State Policy in the Constituent Assembly?**

- Ans
- 1. The state was responsible for these policies
  - 2. They were an instrument of instructions
  - 3. They were considered as novel features
  - 4. They were non justiciable in character

Question ID : 630680511438  
Option 1 ID : 6306801998885  
Option 2 ID : 6306801998884  
Option 3 ID : 6306801998883  
Option 4 ID : 6306801998882  
Status : Answered  
Chosen Option : 4

**Q.2 When two nuclei fuse together forming one nucleus during cell fusion, it is known as:**

- Ans
- 1. synkaryon
  - 2. eukaryon
  - 3. heterokaryon
  - 4. syncytium

Question ID : 630680399212  
Option 1 ID : 6306801556795  
Option 2 ID : 6306801556796  
Option 3 ID : 6306801556797  
Option 4 ID : 6306801556798  
Status : Answered  
Chosen Option : 1

**Q.3 In the context of a Microsoft Excel sheet, what does the term 'workbook' mean?**

- Ans
- 1. A single sheet within a file
  - 2. The entire Microsoft Excel file
  - 3. A formula used in calculations
  - 4. A chart or graph

Question ID : 630680571823  
Option 1 ID : 6306802236193  
Option 2 ID : 6306802236194  
Option 3 ID : 6306802236195  
Option 4 ID : 6306802236196  
Status : Answered  
Chosen Option : 3

**Q.4 Who is the ultimate interpreter of the Constitution?**

- Ans
- 1. President
  - 2. Speaker
  - 3. District Courts
  - 4. Supreme Court

Question ID : 630680511449  
Option 1 ID : 6306801998928  
Option 2 ID : 6306801998929  
Option 3 ID : 6306801998927  
Option 4 ID : 6306801998926  
Status : Answered  
Chosen Option : 1

Q.5 A low pitched but louder sound has \_\_\_\_\_.

- Ans  1. lower frequency and higher amplitude  
 2. higher frequency and lower amplitude  
 3. lower frequency and lower amplitude  
 4. higher frequency and higher amplitude

Question ID : 630680419681  
Option 1 ID : 6306801637217  
Option 2 ID : 6306801637218  
Option 3 ID : 6306801637219  
Option 4 ID : 6306801637220  
Status : Answered  
Chosen Option : 4

Q.6 In the 1830's, which Scottish man was Commissioned by the East India Company to prepare reports on Education and progress in the native schools of Bengal and Bihar?

- Ans  1. William Adam  
 2. Joseph Hartog  
 3. John Sargent  
 4. Anthony Mc Donnel

Question ID : 630680511592  
Option 1 ID : 6306801999493  
Option 2 ID : 6306801999490  
Option 3 ID : 6306801999491  
Option 4 ID : 6306801999492  
Status : Answered  
Chosen Option : 3

Q.7 In 2023, who among the following individuals served as the governor of Telangana?

- Ans  1. Baby Rani Maurya  
 2. Kalraj Mishra  
 3. Ganesh Lal  
 4. Tamilisai Soundararajan

Question ID : 630680513910  
Option 1 ID : 6306802008267  
Option 2 ID : 6306802008268  
Option 3 ID : 6306802008266  
Option 4 ID : 6306802008265  
Status : Answered  
Chosen Option : 1

Q.8 On which date did the cantonment of Meerut break out in military mutiny during the 1857 movement?

- Ans  1. 30 March 1857  
 2. 10 May 1857  
 3. 30 May 1857  
 4. 09 April 1857

Question ID : 630680511558  
Option 1 ID : 6306801999357  
Option 2 ID : 6306801999356  
Option 3 ID : 6306801999354  
Option 4 ID : 6306801999355  
Status : Answered  
Chosen Option : 3

Q.9 Which of the following is NOT included while estimating National Income?

I. Goods sold by street hawkers

II. Services of housewives

III. Production of vegetable in kitchen garden

Ans  1. All I, II and III

2. Only II and III

3. Only III

4. Only I and II

Question ID : 630680512400

Option 1 ID : 6306802002573

Option 2 ID : 6306802002571

Option 3 ID : 6306802002572

Option 4 ID : 6306802002570

Status : Answered

Chosen Option : 1

Q.10 After realising the deadly effects of depleting the ozone layer, under which programme was the decision taken to ban the usage of CFC?

Ans  1. United Nations Development Programme

2. Natural State Environmental Programme

3. United Nations Environment Programme

4. Federal Energy Management Programme

Question ID : 630680403332

Option 1 ID : 6306801572837

Option 2 ID : 6306801572838

Option 3 ID : 6306801572839

Option 4 ID : 6306801572840

Status : Answered

Chosen Option : 3

Q.11 Which of the following states has launched the 'Mo Ghara' or 'My Home' scheme, with an aim to transform kutcha houses into pucca ones?

Ans  1. West Bengal

2. Chhattisgarh

3. Odisha

4. Jharkhand

Question ID : 630680513785

Option 1 ID : 6306802007765

Option 2 ID : 6306802007767

Option 3 ID : 6306802007768

Option 4 ID : 6306802007766

Status : Answered

Chosen Option : 1

Q.12 The animals or plants which can inbreed successfully must belong to the same \_\_\_\_\_.

- Ans
- 1. country
  - 2. planet
  - 3. locality
  - 4. species

Question ID : 630680539378  
Option 1 ID : 6306802108642  
Option 2 ID : 6306802108641  
Option 3 ID : 6306802108643  
Option 4 ID : 6306802108640  
Status : Answered  
Chosen Option : 4

Q.13 Which Nationalist Democratic Progressive Party (NDPP) leader was sworn in as the fifth Chief Minister of Nagaland in March 2023?

- Ans
- 1. Wanweiroy Kharlukhi
  - 2. Chingwang Konyak
  - 3. Tokheho Yepthomi
  - 4. Neiphiu Rio

Question ID : 630680412267  
Option 1 ID : 6306801607891  
Option 2 ID : 6306801607892  
Option 3 ID : 6306801607893  
Option 4 ID : 6306801607894  
Status : Answered  
Chosen Option : 4

Q.14 Before starting a 5 day and 5 night excursion, Mr. Patel provided all his students with battery powered flash lights. He also gave them some extra batteries to use as spare. Then Mr. Patel asked them whether they know how the batteries will produce electricity and help them. What do you think the correct answer to his question is?

- Ans
- 1. Electricity is produced by the chemicals stored in the battery
  - 2. Electricity is produced by friction between the battery and the flash light
  - 3. Electricity is saved in the battery from the factory that produces it
  - 4. Battery extracts electricity from the environment and passes it to the flash light

Question ID : 630680401741  
Option 1 ID : 6306801566730  
Option 2 ID : 6306801566731  
Option 3 ID : 6306801566732  
Option 4 ID : 6306801566733  
Status : Answered  
Chosen Option : 1

Q.15 What is the name of the compound with the formula  $N_2O_5$ ?

- Ans
- 1. Nitric oxide
  - 2. Nitrous oxide
  - 3. Dinitrogen pentoxide
  - 4. Nitrogen dioxide

Question ID : 630680540122  
Option 1 ID : 6306802111589  
Option 2 ID : 6306802111588  
Option 3 ID : 6306802111590  
Option 4 ID : 6306802111591  
Status : Answered  
Chosen Option : 3

Q.16 The Arid soils are developed in the western part of which state from the following?

- Ans
- 1. Assam
  - 2. Bihar
  - 3. Telangana
  - 4. Rajasthan

Question ID : 630680511023  
Option 1 ID : 6306801997222  
Option 2 ID : 6306801997224  
Option 3 ID : 6306801997223  
Option 4 ID : 6306801997225  
Status : Answered  
Chosen Option : 3

Q.17 According to Census of India 2011, which state recorded negative population growth rate?

- Ans
- 1. Manipur
  - 2. Nagaland
  - 3. Sikkim
  - 4. Kerala

Question ID : 630680477701  
Option 1 ID : 6306801865952  
Option 2 ID : 6306801865953  
Option 3 ID : 6306801865954  
Option 4 ID : 6306801865955  
Status : Answered  
Chosen Option : 2

Q.18 What is the main content of the Fourth Schedule in the Constitution of India?

- Ans
- 1. Directive Principles of State Policy
  - 2. Allocation of seats in the Lok Sabha
  - 3. Provisions for State Legislature
  - 4. Allocation of seats in the Council of States

Question ID : 630680804341  
Option 1 ID : 6306803151098  
Option 2 ID : 6306803151095  
Option 3 ID : 6306803151097  
Option 4 ID : 6306803151096  
Status : Answered  
Chosen Option : 4

**Q.19** Who marked the historic moment by unveiling the 'Yashobhoomi' convention centre in Delhi in September 2023?

- Ans
- 1. Arvind Kejriwal
  - 2. Dharmendra Pradhan
  - 3. Narendra Modi
  - 4. Droupadi Murmu

Question ID : 630680412653  
Option 1 ID : 6306801609435  
Option 2 ID : 6306801609436  
Option 3 ID : 6306801609437  
Option 4 ID : 6306801609438  
Status : Answered  
Chosen Option : 4

**Q.20** Who among the following scientists discovered free living cells in pond water for the first time?

- Ans
- 1. Robert Hooke
  - 2. Robert Brown
  - 3. Anton Van Leeuwenhoek
  - 4. Franz Bauer

Question ID : 630680565191  
Option 1 ID : 6306802209737  
Option 2 ID : 6306802209740  
Option 3 ID : 6306802209738  
Option 4 ID : 6306802209739  
Status : Answered  
Chosen Option : 1

**Q.21** A village is established in a region where land meets the ocean. What is this region called?

- Ans
- 1. Tropical Region
  - 2. Coastal Region
  - 3. Sea Beach
  - 4. Marshy Land

Question ID : 630680546841  
Option 1 ID : 6306802137934  
Option 2 ID : 6306802137933  
Option 3 ID : 6306802137931  
Option 4 ID : 6306802137932  
Status : Answered  
Chosen Option : 1

Q.22 On cold pressing groundnut, oils are released. This indicates the presence of \_\_\_\_\_.

- Ans
- 1. Carbohydrates
  - 2. Fats
  - 3. Vitamins
  - 4. Proteins

Question ID : 630680539582  
Option 1 ID : 6306802109457  
Option 2 ID : 6306802109458  
Option 3 ID : 6306802109459  
Option 4 ID : 6306802109460  
Status : Answered  
Chosen Option : 2

Q.23 The largest river system of Rajasthan is \_\_\_\_\_.

- Ans
- 1. Luni
  - 2. Kaveri
  - 3. Bhima
  - 4. Tapi

Question ID : 630680564469  
Option 1 ID : 6306802206807  
Option 2 ID : 6306802206809  
Option 3 ID : 6306802206810  
Option 4 ID : 6306802206808  
Status : Answered  
Chosen Option : 1

Q.24 Pascal is the SI unit of \_\_\_\_\_, which is defined as a force of 1 N applied uniformly over an area of  $1 \text{ m}^2$ .

- Ans
- 1. mass density
  - 2. energy
  - 3. power
  - 4. pressure

Question ID : 630680403591  
Option 1 ID : 6306801573859  
Option 2 ID : 6306801573858  
Option 3 ID : 6306801573861  
Option 4 ID : 6306801573860  
Status : Answered  
Chosen Option : 4

Q.25 The process by which molecules from a region of higher concentration move to a region of lower concentration is known as:

- Ans
- 1. evaporation
  - 2. boiling
  - 3. diffusion
  - 4. melting

Question ID : 630680402647  
Option 1 ID : 6306801570187  
Option 2 ID : 6306801570188  
Option 3 ID : 6306801570189  
Option 4 ID : 6306801570190  
Status : Answered  
Chosen Option : 3

**Q.26** In which Union Territory is the 'slash and burn' agriculture known as 'Dipa'?

- Ans
- 1. Jammu and Kashmir
  - 2. Ladakh
  - 3. Dadra & Nagar Haveli and Daman & Diu
  - 4. Andaman and Nicobar Islands

Question ID : 630680510948  
Option 1 ID : 6306801996924  
Option 2 ID : 6306801996923  
Option 3 ID : 6306801996925  
Option 4 ID : 6306801996922  
Status : Answered  
Chosen Option : 3

**Q.27** When was the First Five-Year Plan of India launched?

- Ans
- 1. 1950
  - 2. 1951
  - 3. 1956
  - 4. 1961

Question ID : 630680460139  
Option 1 ID : 6306801797002  
Option 2 ID : 6306801797003  
Option 3 ID : 6306801797004  
Option 4 ID : 6306801797005  
Status : Answered  
Chosen Option : 1

**Q.28** Based on which committee recommendations, RBI introduced a comprehensive regulatory framework for NBFC-MFIs?

- Ans
- 1. Gadgil committee
  - 2. Malegam committee
  - 3. Kelkar committee
  - 4. Rangarajan committee

Question ID : 630680401332  
Option 1 ID : 6306801565129  
Option 2 ID : 6306801565130  
Option 3 ID : 6306801565131  
Option 4 ID : 6306801565132  
Status : Answered  
Chosen Option : 3

**Q.29** Which one of the following has the largest population in a food chain?

- Ans
- 1. Decomposers
  - 2. Primary consumers
  - 3. Producers
  - 4. Secondary consumers

Question ID : 630680540577  
Option 1 ID : 6306802113386  
Option 2 ID : 6306802113384  
Option 3 ID : 6306802113383  
Option 4 ID : 6306802113385  
Status : Answered  
Chosen Option : 1

**Q.30** Which of the following sports events was NEVER hosted by India?

- Ans
- 1. Commonwealth Games
  - 2. Asian Games
  - 3. ICC Men World Cup Cricket
  - 4. Olympics

Question ID : 630680510861  
Option 1 ID : 6306801996575  
Option 2 ID : 6306801996577  
Option 3 ID : 6306801996576  
Option 4 ID : 6306801996574  
Status : Answered  
Chosen Option : 1

**Q.31** In which of the following groups of the periodic table is the metallic element 'silver' found?

- Ans
- 1. Group 11
  - 2. Group 15
  - 3. Group 7
  - 4. Group 3

Question ID : 630680403020  
Option 1 ID : 6306801571653  
Option 2 ID : 6306801571654  
Option 3 ID : 6306801571652  
Option 4 ID : 6306801571651  
Status : Answered  
Chosen Option : 3

**Q.32** Which species of sponges is commonly called glass sponge due to the presence of silica spicules?

- Ans
- 1. Calcareo
  - 2. Spongilla
  - 3. Planaria
  - 4. Euplectella

Question ID : 630680404146  
Option 1 ID : 6306801576071  
Option 2 ID : 6306801576072  
Option 3 ID : 6306801576073  
Option 4 ID : 6306801576070  
Status : Answered  
Chosen Option : 2

**Q.33** "Meri LiFE" (My life) app was launched in May 2023 by union minister Shri Bhupender Yadav. Which ministry does he belong?

- Ans
- 1. Ministry of Earth Sciences
  - 2. Ministry of Environment, Forest and Climate Change
  - 3. Ministry of Agriculture and Farmers Welfare
  - 4. Ministry of Health and Family Welfare

Question ID : 630680412711  
Option 1 ID : 6306801609667  
Option 2 ID : 6306801609668  
Option 3 ID : 6306801609669  
Option 4 ID : 6306801609670  
Status : Answered  
Chosen Option : 3

Q.34 Which of the following is an example of formation of metamorphic rocks?

- Ans  1. Formation of Chalk
2. Formation of Sandstone
3. Formation of Slate
4. Formation of Limestone

Question ID : 630680546828  
Option 1 ID : 6306802137881  
Option 2 ID : 6306802137882  
Option 3 ID : 6306802137879  
Option 4 ID : 6306802137880  
Status : Answered  
Chosen Option : 2

Q.35 What is the height of the Kanchenjunga peak?

- Ans  1. 8958 m
2. 8598 m
3. 8859 m
4. 8527 m

Question ID : 630680510967  
Option 1 ID : 6306801996999  
Option 2 ID : 6306801996998  
Option 3 ID : 6306801997000  
Option 4 ID : 6306801997001  
Status : Answered  
Chosen Option : 4

Q.36 Who along with Barry Marshall, was awarded the Nobel Prize in Physiology or Medicine in 2005 for discovering that stomach ulcer is an infectious disease caused by bacteria?

- Ans  1. Jean Paul Vuillemin
2. Robert Koch
3. Gabriel Pouchet
4. Robin Warren

Question ID : 630680404299  
Option 1 ID : 6306801576694  
Option 2 ID : 6306801576695  
Option 3 ID : 6306801576696  
Option 4 ID : 6306801576697  
Status : Answered  
Chosen Option : 3

**Q.37** Food digested in the stomach passes through the intestines so that the blood vessels can absorb essential nutrients for the functioning and growth of the body. What is this process known as?

- Ans
- 1. Transmission
  - 2. Assimilation
  - 3. Transfusion
  - 4. Integration

Question ID : 630680539638  
Option 1 ID : 6306802109677  
Option 2 ID : 6306802109678  
Option 3 ID : 6306802109679  
Option 4 ID : 6306802109680  
Status : Answered  
Chosen Option : 2

**Q.38** Which chemical compound is responsible for the spicy taste in chilli peppers?

- Ans
- 1. Capsaicin
  - 2. Caffeine
  - 3. Ethanol
  - 4. Tannin

Question ID : 630680412076  
Option 1 ID : 6306801607139  
Option 2 ID : 6306801607140  
Option 3 ID : 6306801607141  
Option 4 ID : 6306801607142  
Status : Answered  
Chosen Option : 1

**Q.39** What does the CONCATENATE function do in Microsoft Excel?

- Ans
- 1. Combines text from multiple cells into one cell
  - 2. Splits text into separate cells
  - 3. Converts text to uppercase
  - 4. Finds the average of a range of cells

Question ID : 630680571924  
Option 1 ID : 6306802236592  
Option 2 ID : 6306802236593  
Option 3 ID : 6306802236594  
Option 4 ID : 6306802236595  
Status : Answered  
Chosen Option : 3

**Q.40** In which year was the Integrated Child Development Scheme (ICDS) launched in India?

- Ans
- 1. 1975
  - 2. 1984
  - 3. 1978
  - 4. 1982

Question ID : 630680394644  
Option 1 ID : 6306801538862  
Option 2 ID : 6306801538865  
Option 3 ID : 6306801538863  
Option 4 ID : 6306801538864  
Status : Answered  
Chosen Option : 3

Q.41 According to Article 58 of the Constitution of India, no person shall be eligible for election as President unless he is a citizen of India, has completed the age of \_\_\_\_ and is qualified for election as a member of the House of the People.

- Ans
- 1. 27 years
  - 2. 30 years
  - 3. 35 years
  - 4. 40 years

Question ID : 630680407801  
Option 1 ID : 6306801590142  
Option 2 ID : 6306801590143  
Option 3 ID : 6306801590144  
Option 4 ID : 6306801590145  
Status : Answered  
Chosen Option : 3

Q.42 Who composed the music for the film Kashmir ki Kali?

- Ans
- 1. Naushad
  - 2. OP Nayyar
  - 3. Hemant Kumar
  - 4. Salil Chowdhury

Question ID : 630680701406  
Option 1 ID : 6306802747562  
Option 2 ID : 6306802747561  
Option 3 ID : 6306802747563  
Option 4 ID : 6306802747564  
Status : Answered  
Chosen Option : 3

Q.43 Who inspired Indians by raising the slogan 'Freedom is my birthright and I shall have it!'?

- Ans
- 1. Swami Vivekananda
  - 2. Sachindra Nath Sanyal
  - 3. Bhagat Singh
  - 4. Bal Gangadhar Tilak

Question ID : 630680572374  
Option 1 ID : 6306802238336  
Option 2 ID : 6306802238337  
Option 3 ID : 6306802238338  
Option 4 ID : 6306802238339  
Status : Answered  
Chosen Option : 4

**Q.44** Which word has been substituted for the words 'Unity of the Nation' in the 42nd Amendment Act of the Preamble of the Constitution of India?

- Ans
- 1. Unity and honesty of the nation
  - 2. Unity and equity of the nation
  - 3. Unity and integrity of the nation
  - 4. Unity and morality of the nation

Question ID : 630680493456  
Option 1 ID : 6306801927563  
Option 2 ID : 6306801927564  
Option 3 ID : 6306801927565  
Option 4 ID : 6306801927566  
Status : Answered  
Chosen Option : 3

**Q.45** India defeated West Indies in which of the following World Cup finals?

- Ans
- 1. 1983 England
  - 2. 2007 West Indies
  - 3. 2019 England
  - 4. 2003 South Africa

Question ID : 630680436000  
Option 1 ID : 6306801701949  
Option 2 ID : 6306801701950  
Option 3 ID : 6306801701951  
Option 4 ID : 6306801701952  
Status : Answered  
Chosen Option : 1

**Q.46** The Registration of Births and Deaths (Amendment) Bill was introduced in the Lok Sabha by which ministry on 26 July 2023?

- Ans
- 1. Ministry of Home Affairs
  - 2. Ministry of Women and Child Development
  - 3. Ministry of Health and Family Welfare
  - 4. Ministry of Information and Broadcasting

Question ID : 630680411229  
Option 1 ID : 6306801603668  
Option 2 ID : 6306801603669  
Option 3 ID : 6306801603670  
Option 4 ID : 6306801603671  
Status : Answered  
Chosen Option : 3

**Q.47** The Pala rulers achieved their domination in which province of India?

- Ans
- 1. Kashmir
  - 2. Bengal
  - 3. Orissa
  - 4. Assam

Question ID : 630680511625  
Option 1 ID : 6306801999624  
Option 2 ID : 6306801999622  
Option 3 ID : 6306801999623  
Option 4 ID : 6306801999625  
Status : Answered  
Chosen Option : 2

**Q.48** Which Minister led the Indian delegation in the meeting of the digital and technology ministers of G7 countries held in Japan on 29 and 30 April 2023?

- Ans  1. Ashwini Vaishnaw  
 2. Ajay Bhatt  
 3. Bhupendra Yadav  
 4. Sarbananda Sonowal

Question ID : 630680469624  
Option 1 ID : 6306801834259  
Option 2 ID : 6306801834260  
Option 3 ID : 6306801834261  
Option 4 ID : 6306801834262  
Status : Answered  
Chosen Option : 1

**Q.49** According to Census 2011 of India, which of the following groups of union territories has the highest urban population?

- Ans  1. Chandigarh and Lakshadweep  
 2. Daman & Diu and Lakshadweep  
 3. Puducherry and Lakshadweep  
 4. Puducherry and Chandigarh

Question ID : 630680477226  
Option 1 ID : 6306801864065  
Option 2 ID : 6306801864066  
Option 3 ID : 6306801864067  
Option 4 ID : 6306801864068  
Status : Answered  
Chosen Option : 1

**Q.50** Kala Ramnath is associated with which of the following gharanas?

- Ans  1. Indore gharana  
 2. Agra gharana  
 3. Mewati gharana  
 4. Bhendibazaar gharana

Question ID : 630680413011  
Option 1 ID : 6306801610867  
Option 2 ID : 6306801610869  
Option 3 ID : 6306801610870  
Option 4 ID : 6306801610868  
Status : Answered  
Chosen Option : 3

Section : General Engineering Electrical

Q.1 In the context of magnetic circuits, the value of the leakage coefficient for electrical machines is usually about \_\_\_\_\_.

Ans  1. 1.15 to 1.25

2. 1.5 to 1.75

3. 0.5 to 1

4. 1.25 to 1.5

Question ID : 630680504223

Option 1 ID : 6306801970454

Option 2 ID : 6306801970456

Option 3 ID : 6306801970453

Option 4 ID : 6306801970455

Status : Answered

Chosen Option : 1

Q.2 1 ampere of current is equal to how many number of electrons?

Ans  1.  $6.25 \times 10^{-18}$

2.  $4.25 \times 10^{-18}$

3.  $4.25 \times 10^{18}$

4.  $6.25 \times 10^{18}$

Question ID : 630680340658

Option 1 ID : 6306801325076

Option 2 ID : 6306801325075

Option 3 ID : 6306801325073

Option 4 ID : 6306801325074

Status : Answered

Chosen Option : 4

Q.3 Which of the following systems is NOT a part of the operating mechanism in a single-phase energy meter?

Ans  1. Braking system

2. Energy system

3. Driving system

4. Registering system

Question ID : 630680217936

Option 1 ID : 630680845652

Option 2 ID : 630680845653

Option 3 ID : 630680845651

Option 4 ID : 630680845654

Status : Answered

Chosen Option : 4

**Q.4** The magnetic flux through a coil having a single turn is varying according to the relation  $\phi = (5t^2 + 4t + 10)$  wb. Determine the impedance of the coil if the induced current through the coil is 5A at  $t = 2$  seconds.

**Ans**  1. 4.8  $\Omega$

2. 4  $\Omega$

3. 8.4  $\Omega$

4. 40  $\Omega$

Question ID : 630680504202  
Option 1 ID : 6306801970371  
Option 2 ID : 6306801970369  
Option 3 ID : 6306801970372  
Option 4 ID : 6306801970370  
Status : Answered  
Chosen Option : 1

**Q.5** In an unbiased pnp transistor, the barrier voltages are \_\_\_\_\_ on the base and \_\_\_\_\_ on the emitter and collector.

**Ans**  1. negative; negative

2. positive; positive

3. negative; positive

4. positive; negative

Question ID : 630680502538  
Option 1 ID : 6306801963736  
Option 2 ID : 6306801963737  
Option 3 ID : 6306801963734  
Option 4 ID : 6306801963735  
Status : Answered  
Chosen Option : 1

**Q.6** A signal applied to a CRO has a rising time of 0.5  $\mu$  s. Its bandwidth is:

**Ans**  1. 0.2 MHz

2. 0.07 MHz

3. 0.7 MHz

4. 0.05 MHz

Question ID : 630680509389  
Option 1 ID : 6306801990846  
Option 2 ID : 6306801990845  
Option 3 ID : 6306801990844  
Option 4 ID : 6306801990843  
Status : Answered  
Chosen Option : 3

Q.7 In radial distribution system, the consumers are dependent on \_\_\_\_\_ and \_\_\_\_\_.

- Ans
- 1. multiple feeder, multiple distributor
  - 2. multiple feeder, single distributor
  - 3. single feeder, single distributor
  - 4. single feeder, multiple distributor

Question ID : 630680503851  
Option 1 ID : 6306801968968  
Option 2 ID : 6306801968965  
Option 3 ID : 6306801968967  
Option 4 ID : 6306801968966  
Status : Answered  
Chosen Option : 3

Q.8 Which of the following statements is FALSE in the context of the characteristics of synchronous motors?

- Ans
- 1. They have constant speed operation.
  - 2. Synchronous motors have high power factor correction.
  - 3. They have low operating efficiency.
  - 4. They are made in large sizes.

Question ID : 630680337171  
Option 1 ID : 6306801311407  
Option 2 ID : 6306801311405  
Option 3 ID : 6306801311406  
Option 4 ID : 6306801311408  
Status : Answered  
Chosen Option : 3

Q.9 With the increase in voltage level of the distribution network, the weight and corresponding cost of the conductor material will be \_\_\_\_\_ and \_\_\_\_\_, respectively, for the same voltage drop.

- Ans
- 1. increased; decreased
  - 2. decreased; decreased
  - 3. increased; increased
  - 4. decreased; increased

Question ID : 630680503818  
Option 1 ID : 6306801968834  
Option 2 ID : 6306801968835  
Option 3 ID : 6306801968836  
Option 4 ID : 6306801968833  
Status : Answered  
Chosen Option : 2

Q.10 In the shaded-pole induction motor, the shading coil fitted on the \_\_\_\_\_ is called \_\_\_\_\_.

- Ans
- 1. auxiliary pole; shading pole
  - 2. main pole; non-shading pole
  - 3. main pole; shading pole
  - 4. auxiliary pole; non-shading pole

Question ID : 630680509537  
Option 1 ID : 6306801991419  
Option 2 ID : 6306801991418  
Option 3 ID : 6306801991420  
Option 4 ID : 6306801991417  
Status : Answered  
Chosen Option : 3

Q.11 The ratio of the mean spherical candle power to the mean horizontal candle power is called \_\_\_\_\_.

- Ans
- 1. reduction factor
  - 2. utilization factor
  - 3. beam factor
  - 4. lamp efficiency

Question ID : 630680401395  
Option 1 ID : 6306801565371  
Option 2 ID : 6306801565372  
Option 3 ID : 6306801565373  
Option 4 ID : 6306801565370  
Status : Answered  
Chosen Option : 1

Q.12 What is the armature-circuit-resistance speed control method for DC motor?

- Ans
- 1. Variation of armature terminal voltage
  - 2. Variation of resistance in the field circuit
  - 3. Variation of resistance in the armature circuit
  - 4. Variation of field flux

Question ID : 630680503353  
Option 1 ID : 6306801966993  
Option 2 ID : 6306801966994  
Option 3 ID : 6306801966995  
Option 4 ID : 6306801966996  
Status : Answered  
Chosen Option : 3

Q.13 Which of the following statements is true about the voltage control of DC motors?

- Ans  1. The field current is kept constant and the terminal voltage is varied to obtain speed control.
2. The application of this method is restricted to separately excited DC motors.
3. The terminal voltage is kept constant and the field current is varied so as to obtain speed control.
4. The application of this method is restricted to self-excited DC motors.

Question ID : 630680503380  
Option 1 ID : 6306801967104  
Option 2 ID : 6306801967102  
Option 3 ID : 6306801967101  
Option 4 ID : 6306801967103  
Status : Answered  
Chosen Option : 2

Q.14 A voltage source of  $V(t) = (10t^3 - 5t + 10)$  Volt is applied across a 10F capacitor, the current through the capacitor at  $t = 2$  sec is \_\_\_\_\_.

- Ans  1. 1100 A
2. 1150 A
3. 1160 A
4. 1000 A

Question ID : 630680504176  
Option 1 ID : 6306801970266  
Option 2 ID : 6306801970265  
Option 3 ID : 6306801970268  
Option 4 ID : 6306801970267  
Status : Answered  
Chosen Option : 2

Q.15 A series R-L-C circuit having  $R = 5 \Omega$ ,  $L = 400$  H and  $C = 4$  F is fed from a  $400 \angle 0^\circ$  volt supply. Then the voltage across the capacitor at resonance will be \_\_\_\_\_.

- Ans  1. 200 V
2. 800 V
3. 400 V
4. 1000 V

Question ID : 630680209218  
Option 1 ID : 630680811089  
Option 2 ID : 630680811087  
Option 3 ID : 630680811088  
Option 4 ID : 630680811090  
Status : Answered  
Chosen Option : 3

Q.16 Which of the following statements is NOT true about DC signal?

- Ans
- 1. A DC voltage is always negative or always positive.
  - 2. A DC voltage has both positive and negative values with change in time.
  - 3. Cell, batteries and regulated power supplies provide a steady DC that is ideal for an electronic circuit.
  - 4. Pure Direct Current always has a constant value.

Question ID : 630680504257  
Option 1 ID : 6306801970590  
Option 2 ID : 6306801970592  
Option 3 ID : 6306801970591  
Option 4 ID : 6306801970589  
Status : Answered  
Chosen Option : 2

Q.17 If  $R_1 = 1 \Omega$ ;  $R_2 = 2 \Omega$ ;  $R_3 = 3 \Omega$ ;  $R_2$  and  $R_3$  are connected in parallel and the combination is in series with  $R_1$ , then the total resistance will be \_\_\_\_\_.

- Ans
- 1.  $1.2 \Omega$
  - 2.  $1.5 \Omega$
  - 3.  $2.8 \Omega$
  - 4.  $2.2 \Omega$

Question ID : 630680504233  
Option 1 ID : 6306801970493  
Option 2 ID : 6306801970494  
Option 3 ID : 6306801970496  
Option 4 ID : 6306801970495  
Status : Answered  
Chosen Option : 4

Q.18 The wattmeter method is used to measure power in a three-phase load. The wattmeter readings are 200 W and  $-35$  W. Find the respective values of active power and reactive power.

- Ans
- 1. 165 W and  $235\sqrt{3}$  VAR
  - 2. 165 W and  $\frac{50}{\sqrt{3}}$  VAR
  - 3. 235 W and  $\frac{150}{\sqrt{3}}$  VAR
  - 4. 235 W and  $50\sqrt{3}$  VAR

Question ID : 630680509385  
Option 1 ID : 6306801990827  
Option 2 ID : 6306801990830  
Option 3 ID : 6306801990828  
Option 4 ID : 6306801990829  
Status : Answered  
Chosen Option : 1

Q.19 The current reverser in the earth tester converts \_\_\_\_\_.

- Ans
- 1. AC to AC
  - 2. DC to DC
  - 3. DC to AC
  - 4. AC to DC

Question ID : 630680396182  
Option 1 ID : 6306801544843  
Option 2 ID : 6306801544842  
Option 3 ID : 6306801544840  
Option 4 ID : 6306801544841  
Status : Answered  
Chosen Option : 3

Q.20 Ten capacitors, each of capacitance  $20\ \mu\text{F}$ , are first connected in series and then in parallel. The ratio of the equivalent capacitance in series to the equivalent capacitance in parallel is:

- Ans
- 1. 1/100
  - 2. 1/200
  - 3. 1/400
  - 4. 1/250

Question ID : 630680504466  
Option 1 ID : 6306801971426  
Option 2 ID : 6306801971427  
Option 3 ID : 6306801971425  
Option 4 ID : 6306801971428  
Status : Answered  
Chosen Option : 1

Q.21 Which of the following is a pure resistive device?

- Ans
- 1. Transformer
  - 2. Heater
  - 3. Generator
  - 4. Motor

Question ID : 630680340668  
Option 1 ID : 6306801325113  
Option 2 ID : 6306801325116  
Option 3 ID : 6306801325114  
Option 4 ID : 6306801325115  
Status : Answered  
Chosen Option : 2

Q.22 The maximum efficiency in the transmission of bulk AC power will be achieved when the power factor of the load is:

- Ans
- 1. slightly less than unity leading
  - 2. slightly less than unity lagging
  - 3. considerably less than unity
  - 4. unity

Question ID : 630680503831  
Option 1 ID : 6306801968886  
Option 2 ID : 6306801968885  
Option 3 ID : 6306801968888  
Option 4 ID : 6306801968887  
Status : Answered  
Chosen Option : 2

Q.23 What type of boilers are suitable for low-maintenance cost, small size and low-pressure plants?

- Ans
- 1. High-pressure boilers
  - 2. Supercritical boilers
  - 3. Water tube boilers
  - 4. Fire tube boilers

Question ID : 630680374444  
Option 1 ID : 6306801458958  
Option 2 ID : 6306801458957  
Option 3 ID : 6306801458955  
Option 4 ID : 6306801458956  
Status : Answered  
Chosen Option : 3

Q.24 Which of the following is correct with reference to step up single-phase transformer?

- Ans
- 1. Turn ratio  $\neq$  Transformation ratio
  - 2. Turn ratio  $>$  Transformation ratio
  - 3. Turn ratio = Transformation ratio
  - 4. Turn ratio  $<$  Transformation ratio

Question ID : 630680426278  
Option 1 ID : 6306801663218  
Option 2 ID : 6306801663216  
Option 3 ID : 6306801663215  
Option 4 ID : 6306801663217  
Status : Answered  
Chosen Option : 4

Q.25 In a thermal power plant, the overall efficiency can be determined using which of the following?

- Ans
- 1. Rankine Cycle Efficiency
  - 2. Carnot Cycle Efficiency
  - 3. Boiler Efficiency  $\times$  Generator Efficiency  $\times$  Turbine Efficiency
  - 4. Regenerative Cycle Efficiency

Question ID : 630680333501  
Option 1 ID : 6306801297278  
Option 2 ID : 6306801297280  
Option 3 ID : 6306801297277  
Option 4 ID : 6306801297279  
Status : Answered  
Chosen Option : 3

Q.26 The torque developed by a 3-phase induction motor least depends on which the following options ?

- Ans
- 1. rotor power factor
  - 2. shaft diameter
  - 3. rotor EMF
  - 4. rotor current

Question ID : 630680509557  
Option 1 ID : 6306801991498  
Option 2 ID : 6306801991500  
Option 3 ID : 6306801991499  
Option 4 ID : 6306801991497  
Status : Answered  
Chosen Option : 2

Q.27 प्राक्कलन के सामान्य सिद्धांतों के अनुसार, जब भी व्यावहारिक हो, \_\_\_\_\_ के बाद ही कार्य निष्पादित करना लाभदायक होता है।

- Ans
- 1. निविदाओं का मूल्यांकन करने
  - 2. क्रय आदेश देने
  - 3. बिलों का भुगतान करने
  - 4. निविदाएं आमंत्रित करने

Question ID : 630680363619  
Option 1 ID : 6306801416222  
Option 2 ID : 6306801416224  
Option 3 ID : 6306801416223  
Option 4 ID : 6306801416221  
Status : Answered  
Chosen Option : 1

Q.28 Which of the following effects is predominant when a dielectric material is polarised?

- Ans
- 1. Charged particles re-orientate themselves in the red phase with the electric field.
  - 2. It makes charged particles free to move.
  - 3. It makes charged particles free to move and causes current to flow in the material.
  - 4. It causes current to flow in the material.

Question ID : 630680503973  
Option 1 ID : 6306801969455  
Option 2 ID : 6306801969453  
Option 3 ID : 6306801969456  
Option 4 ID : 6306801969454  
Status : Answered  
Chosen Option : 1

Q.29 In an electrodynamic instrument, what happens to the torque when the current flowing through the coil is decreased?

- Ans
- 1. The torque decreases.
  - 2. The torque becomes zero.
  - 3. The torque remains constant.
  - 4. The torque increases.

Question ID : 630680509367  
Option 1 ID : 6306801990756  
Option 2 ID : 6306801990758  
Option 3 ID : 6306801990757  
Option 4 ID : 6306801990755  
Status : Answered  
Chosen Option : 1

Q.30 What is the primary purpose of a back-to-back power electronic converter (PEC) in type-C doubly-fed induction generator wind power plants?

- Ans
- 1. To regulate wind turbine speed
  - 2. To convert mechanical power to electrical power
  - 3. To control reactive power production
  - 4. To match stator and rotor frequencies

Question ID : 630680426252  
Option 1 ID : 6306801663113  
Option 2 ID : 6306801663111  
Option 3 ID : 6306801663114  
Option 4 ID : 6306801663112  
Status : Answered  
Chosen Option : 3

Q.31 What is the correct order of the following operations, performed for conducting the estimation?

- a) Wiring layout
- b) Calculation of the total number of connections
- c) Selection of the main switch board

Ans  1. b, c, a

2. a, b, c

3. a, c, b

4. c, a, b

Question ID : 630680508362

Option 1 ID : 6306801986791

Option 2 ID : 6306801986789

Option 3 ID : 6306801986790

Option 4 ID : 6306801986792

Status : Answered

Chosen Option : 2

Q.32 Which crop is primarily used to produce biomass alcohol fuel or ethanol in India?

Ans  1. Rice

2. Sugarcane

3. Wheat

4. Corn

Question ID : 630680426247

Option 1 ID : 6306801663093

Option 2 ID : 6306801663091

Option 3 ID : 6306801663094

Option 4 ID : 6306801663092

Status : Answered

Chosen Option : 2

Q.33 Which of the following is/are true regarding the significance of the 'barrier' in the rotor of a synchronous reluctance motor?

- 1. It prevents the rotor from rotating at synchronous speed.
- 2. It helps to reduce eddy current losses in the rotor.
- 3. It increases the magnetic flux density in the rotor.
- 4. It improves the torque characteristics of the motor.

Ans  1. Only 2

2. Only 1 and 4

3. Both 1 and 3

4. Both 2 and 4

Question ID : 630680315920

Option 1 ID : 6306801229350

Option 2 ID : 6306801229349

Option 3 ID : 6306801229352

Option 4 ID : 6306801229351

Status : Answered

Chosen Option : 4

Q.34 In ring distribution scheme, \_\_\_\_\_ of a \_\_\_\_\_ transformer form a loop.

- Ans  1. primaries, power  
 2. primaries, distribution  
 3. secondaries, power  
 4. secondaries, distribution

Question ID : 630680503847  
Option 1 ID : 6306801968949  
Option 2 ID : 6306801968950  
Option 3 ID : 6306801968951  
Option 4 ID : 6306801968952  
Status : Answered  
Chosen Option : 2

Q.35 The plant capacity factor is related to \_\_\_\_\_.

- Ans  1. plant impedance  
 2. plant resistance  
 3. plant operating frequency  
 4. plant reactance

Question ID : 630680333443  
Option 1 ID : 6306801297048  
Option 2 ID : 6306801297045  
Option 3 ID : 6306801297046  
Option 4 ID : 6306801297047  
Status : Answered  
Chosen Option : 3

Q.36 Which of the following statements are correct?

- (a) Lenz's law is based on the conservation of charge.  
(b) Lenz's law gives the direction of induced current.  
(c) Lenz's law is based on the conservation of energy.

- Ans  1. (a), (b) and (c)  
 2. Both (a) and (c)  
 3. Both (a) and (b)  
 4. Both (b) and (c)

Question ID : 630680504204  
Option 1 ID : 6306801970380  
Option 2 ID : 6306801970378  
Option 3 ID : 6306801970377  
Option 4 ID : 6306801970379  
Status : Answered  
Chosen Option : 1

Q.37 A light source with a candle worth of power produces \_\_\_\_\_.

- Ans  1. one lumen / watt  
 2. one lumen / meter  
 3. one lumen / radian  
 4. one lumen / steradian

Question ID : 630680508377  
Option 1 ID : 6306801986851  
Option 2 ID : 6306801986850  
Option 3 ID : 6306801986849  
Option 4 ID : 6306801986852  
Status : Answered  
Chosen Option : 4

Q.38 The deflecting torque in an electrostatic instrument can be calibrated by \_\_\_\_\_.

- Ans
- 1. adjusting the spring constant
  - 2. adjusting the damping
  - 3. adjusting the frequency
  - 4. adjusting the potential difference between the plates

Question ID : 630680509377  
Option 1 ID : 6306801990795  
Option 2 ID : 6306801990796  
Option 3 ID : 6306801990797  
Option 4 ID : 6306801990798  
Status : Answered  
Chosen Option : 4

Q.39 The sum of instantaneous powers in the three phases in a three-phase system:

- Ans
- 1. is zero
  - 2. remains constant
  - 3. thrice the line frequency
  - 4. twice the line frequency

Question ID : 630680504471  
Option 1 ID : 6306801971445  
Option 2 ID : 6306801971446  
Option 3 ID : 6306801971447  
Option 4 ID : 6306801971448  
Status : Answered  
Chosen Option : 1

Q.40 Which of the following lamps is NOT a discharge lamp?

- Ans
- 1. Incandescent lamp
  - 2. Neon lamp
  - 3. Sodium vapour lamp
  - 4. Mercury vapour Lamp

Question ID : 630680508378  
Option 1 ID : 6306801986855  
Option 2 ID : 6306801986856  
Option 3 ID : 6306801986854  
Option 4 ID : 6306801986853  
Status : Answered  
Chosen Option : 1

Q.41 In the context of electromagnetism, according to Fleming's left-hand rule, the thumb indicates the \_\_\_\_\_.

- Ans
- 1. direction of the magnetic field
  - 2. length of the conductor
  - 3. direction of the motion of the conductor
  - 4. direction of the current

Question ID : 630680504220  
Option 1 ID : 6306801970441  
Option 2 ID : 6306801970444  
Option 3 ID : 6306801970443  
Option 4 ID : 6306801970442  
Status : Answered  
Chosen Option : 3

Q.42 A three-phase star connected load draws 3600 VAR when the line voltage is 200 V and the line current is  $10\sqrt{3}$  A. The power factor is \_\_\_\_\_.

- Ans
- 1. 0.6
  - 2. 0.8
  - 3. 1
  - 4. zero

Question ID : 630680209228  
Option 1 ID : 630680811127  
Option 2 ID : 630680811129  
Option 3 ID : 630680811128  
Option 4 ID : 630680811130  
Status : Answered  
Chosen Option : 2

Q.43 What is the correction factor of the wattmeter at a lagging power factor? (Where,  $\phi$  is the phase angle between the voltage applied to the pressure coil and the current in the current coil and  $\beta$  is the angle between the voltage applied to the pressure coil and the current in the pressure coil.)

- Ans
- 1.  $\frac{\cos \Phi}{\cos \beta \cos(\Phi + \beta)}$
  - 2.  $\frac{\cos \Phi}{\cos \beta \sin(\Phi - \beta)}$
  - 3.  $\frac{\cos \Phi}{\cos \beta \cos(\Phi - \beta)}$
  - 4.  $\frac{\cos \Phi}{\cos \beta \sin(\Phi + \beta)}$

Question ID : 630680509368  
Option 1 ID : 6306801990762  
Option 2 ID : 6306801990759  
Option 3 ID : 6306801990761  
Option 4 ID : 6306801990760  
Status : Not Answered  
Chosen Option : --

Q.44 What is Cold Reserve Capacity in a power system?

- Ans
- 1. The power generating capacity that is permanently shut down.
  - 2. The power generating capacity that is readily available and online, ready to be dispatched.
  - 3. The power generating capacity that is unavailable due to maintenance or other reasons.
  - 4. The power generating capacity that is not currently in use but can be brought online when needed.

Question ID : 630680374436  
Option 1 ID : 6306801458926  
Option 2 ID : 6306801458923  
Option 3 ID : 6306801458925  
Option 4 ID : 6306801458924  
Status : Answered  
Chosen Option : 2

Q.45 Which of the following is correct for a step down single-phase transformer?

- Ans
- 1. Input volt ampere  $\neq$  output volt ampere
  - 2. Input volt ampere  $>$  output volt ampere
  - 3. Input volt ampere = output volt ampere
  - 4. Input volt ampere  $<$  output volt ampere

Question ID : 630680380932  
Option 1 ID : 6306801484718  
Option 2 ID : 6306801484716  
Option 3 ID : 6306801484715  
Option 4 ID : 6306801484717  
Status : Answered  
Chosen Option : 3

Q.46 A capacitor of capacitive reactance  $5\Omega$  is connected across a 220V, 50Hz supply. Calculate the maximum current drawn by the capacitor.

- Ans
- 1. 40 A
  - 2. 44 A
  - 3.  $44\sqrt{2}A$
  - 4. 100 A

Question ID : 630680504184  
Option 1 ID : 6306801970300  
Option 2 ID : 6306801970297  
Option 3 ID : 6306801970299  
Option 4 ID : 6306801970298  
Status : Answered  
Chosen Option : 3

Q.47 With respect to AC fundamentals of an electrical signal, the ratio of the area under the curve to the base is called \_\_\_\_\_.

- Ans
- 1. RMS value
  - 2. average value
  - 3. peak value
  - 4. effective value

Question ID : 630680504247  
Option 1 ID : 6306801970551  
Option 2 ID : 6306801970550  
Option 3 ID : 6306801970549  
Option 4 ID : 6306801970552  
Status : Answered  
Chosen Option : 2

Q.48 In nominal pi method, the line to neutral capacitance is:

- Ans  1. divided into two halves
2. assumed lumped at the midpoint
3. assumed lumped at the receiving end
4. assumed lumped at the sending end

Question ID : 630680503836  
Option 1 ID : 6306801968908  
Option 2 ID : 6306801968905  
Option 3 ID : 6306801968906  
Option 4 ID : 6306801968907  
Status : Answered  
Chosen Option : 1

Q.49 Slip is 1 when rotor is \_\_\_\_\_.

- Ans  1. stationary
2. rotating with synchronous speed
3. rotating at a speed lower than synchronous speed
4. rotating at a speed higher than synchronous speed

Question ID : 630680509581  
Option 1 ID : 6306801991593  
Option 2 ID : 6306801991594  
Option 3 ID : 6306801991595  
Option 4 ID : 6306801991596  
Status : Answered  
Chosen Option : 1

Q.50 A DC source of EMF E volts and internal resistance R ohms is connected to a variable load and it is adjusted such that the load absorbs maximum power from the source. The maximum power delivered from the source to the load is:

- Ans  1.  $\frac{E^2}{R}$
2.  $\frac{E^2}{2R}$
3.  $\frac{E^2}{4R}$
4.  $\frac{2E^2}{R}$

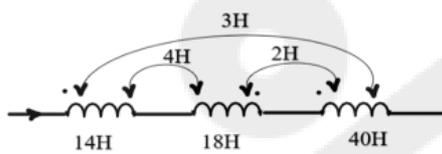
Question ID : 630680334681  
Option 1 ID : 6306801301981  
Option 2 ID : 6306801301983  
Option 3 ID : 6306801301982  
Option 4 ID : 6306801301984  
Status : Answered  
Chosen Option : 3

Q.51 An uneven air gap in the stator and the rotor of a squirrel cage induction motor will lead to \_\_\_\_\_ during operation.

- Ans  1. increased vibrations  
 2. increased current  
 3. increased torque  
 4. increased speed

Question ID : 630680509565  
Option 1 ID : 6306801991532  
Option 2 ID : 6306801991529  
Option 3 ID : 6306801991530  
Option 4 ID : 6306801991531  
Status : Answered  
Chosen Option : 1

Q.52 For the three coupled coils shown below, the total inductance will be \_\_\_\_\_.



- Ans  1. 60 H  
 2. 90 H  
 3. 66 H  
 4. 81 H

Question ID : 630680504198  
Option 1 ID : 6306801970354  
Option 2 ID : 6306801970355  
Option 3 ID : 6306801970356  
Option 4 ID : 6306801970353  
Status : Answered  
Chosen Option : 3

Q.53 The Fermi level position \_\_\_\_\_ in the energy band diagram of a p-n junction at equilibrium states.

- Ans  1. does not exist  
 2. is uphill for electrons to cross the junction  
 3. is downhill for electrons to cross the junction  
 4. is constant for electrons to cross the junction

Question ID : 630680502504  
Option 1 ID : 6306801963601  
Option 2 ID : 6306801963599  
Option 3 ID : 6306801963600  
Option 4 ID : 6306801963598  
Status : Answered  
Chosen Option : 1

**Q.54** In electromagnetism, the work done on a unit n-pole in moving once around any complete path will be equal to the product of the current and the number of turns enclosed by that path is stated by \_\_\_\_\_.

- Ans
- 1. Coulomb's law
  - 2. Lenz's law
  - 3. Laplace's law
  - 4. Work's law

Question ID : 630680504163  
Option 1 ID : 6306801970216  
Option 2 ID : 6306801970215  
Option 3 ID : 6306801970213  
Option 4 ID : 6306801970214  
Status : Answered  
Chosen Option : 3

**Q.55** A 6-pole, 250 V wave connected shunt motor running at 955 rpm has 1200 armature conductors and useful flux/pole of 10m Wb. The armature and field resistance are 0.5  $\Omega$  and 250  $\Omega$ , respectively. If the motor draws 20 A from the supply mains, then the value of torque developed by the motor is \_\_\_\_\_.

- Ans
- 1. 62.3 N-m
  - 2. 65.8 N-m
  - 3. 45.6 N-m
  - 4. 57.9 N-m

Question ID : 630680503374  
Option 1 ID : 6306801967079  
Option 2 ID : 6306801967080  
Option 3 ID : 6306801967077  
Option 4 ID : 6306801967078  
Status : Answered  
Chosen Option : 4

**Q.56** If the power factor of 500 KVA, 21 KW, 3-phase star connected alternator is increased from its initial value, then the efficiency of the synchronous generator will \_\_\_\_\_.

- Ans
- 1. become zero
  - 2. decrease
  - 3. remain constant
  - 4. increase

Question ID : 630680337167  
Option 1 ID : 6306801311392  
Option 2 ID : 6306801311390  
Option 3 ID : 6306801311391  
Option 4 ID : 6306801311389  
Status : Answered  
Chosen Option : 4

Q.57 In an inductor, if the coil is wound on an insulating bobbin, without any magnetic material as core, then the inductor is called \_\_\_\_\_.

- Ans
- 1. variable inductor
  - 2. ferrite-cored inductor
  - 3. air-cored inductor
  - 4. iron-cored inductor

Question ID : 630680504237  
Option 1 ID : 6306801970512  
Option 2 ID : 6306801970511  
Option 3 ID : 6306801970510  
Option 4 ID : 6306801970509  
Status : Answered  
Chosen Option : 3

Q.58 विद्युत संस्थापन और लागत निर्धारण में निम्नलिखित में से क्या नेशनल इलेक्ट्रिकल कोड के दायरे में नहीं आता है?

- Ans
- 1. मौलिक घटकों के भेद
  - 2. सुरक्षा के संबंध में अनुशंसाएं
  - 3. सामान्य सुरक्षा प्रक्रिया
  - 4. सही मानक प्रक्रियाएं

Question ID : 630680333218  
Option 1 ID : 6306801296148  
Option 2 ID : 6306801296146  
Option 3 ID : 6306801296145  
Option 4 ID : 6306801296147  
Status : Answered  
Chosen Option : 1

Q.59 If the station has a thermal efficiency of 30% and electrical efficiency of 95%, find the overall efficiency of the station.

- Ans
- 1. 27.5%
  - 2. 28.5%
  - 3. 26.5%
  - 4. 29.5%

Question ID : 630680509448  
Option 1 ID : 6306801991062  
Option 2 ID : 6306801991063  
Option 3 ID : 6306801991064  
Option 4 ID : 6306801991061  
Status : Answered  
Chosen Option : 2

Q.60 Which of the following statements correctly explains the relation between the maximum demand and the connected load during a practical scenario in a power system?

- Ans
- 1. The maximum demand will always be greater than the connected load.
  - 2. The maximum demand will always be less than the connected load.
  - 3. The maximum demand and the connected load do not exhibit any relation with each other.
  - 4. The maximum demand will always be equal to the connected load.

Question ID : 630680509420  
Option 1 ID : 6306801990949  
Option 2 ID : 6306801990950  
Option 3 ID : 6306801990952  
Option 4 ID : 6306801990951  
Status : Answered  
Chosen Option : 1

Q.61 A certain length of wire has its resistance measured as  $20\ \Omega$  at  $20^\circ\text{C}$  and  $40\ \Omega$  at  $60^\circ\text{C}$ . Calculate the temperature coefficient.

- Ans
- 1.  $\left(\frac{1}{40}\right) / ^\circ\text{C}$
  - 2.  $\left(\frac{1}{60}\right) / ^\circ\text{C}$
  - 3.  $30^\circ\text{C}$
  - 4.  $\left(\frac{1}{30}\right) / ^\circ\text{C}$

Question ID : 630680504143  
Option 1 ID : 6306801970135  
Option 2 ID : 6306801970134  
Option 3 ID : 6306801970133  
Option 4 ID : 6306801970136  
Status : Not Answered  
Chosen Option : --

Q.62 Total Reactive Power drawn from a three-phase balanced load where line voltage =  $V_P$ , Line current =  $V_L$ , Phase voltage =  $V_P$  and Phase current =  $I_P$  is given by:

- Ans
- 1.  $3V_P I_P \cos\phi$
  - 2.  $\sqrt{3} V_L I_L \cos\phi$
  - 3.  $\sqrt{3} V_L I_L \sin\phi$
  - 4.  $\sqrt{3} V_P I_P \sin\phi$

Question ID : 630680334744  
Option 1 ID : 6306801302235  
Option 2 ID : 6306801302233  
Option 3 ID : 6306801302236  
Option 4 ID : 6306801302234  
Status : Answered  
Chosen Option : 3

**Q.63** A conductor of length 5 m moves at an angle  $30^\circ$  to the direction of the magnetic field of flux density  $1.4 \text{ wb/m}^2$ . If the velocity of the conductor is 40 m/s, then calculate the EMF induced in it.

- Ans  1. 140 volts  
 2. 100 volts  
 3. 1400 volts  
 4. 0 volt

Question ID : 630680504196  
Option 1 ID : 6306801970347  
Option 2 ID : 6306801970346  
Option 3 ID : 6306801970345  
Option 4 ID : 6306801970348  
Status : Answered  
Chosen Option : 1

**Q.64** Mutual inductance between two magnetically coupled coils does NOT depend on which of the following?

- Ans  1. Temperature of the coil  
 2. Cross sectional area of their common core  
 3. Permeability of the core material  
 4. Number of turns of the coils

Question ID : 630680340648  
Option 1 ID : 6306801325036  
Option 2 ID : 6306801325034  
Option 3 ID : 6306801325033  
Option 4 ID : 6306801325035  
Status : Answered  
Chosen Option : 1

**Q.65** An external resistance is added in the motor circuit during starting condition. The main purpose of this is to \_\_\_\_\_.

- Ans  1. reduce the main flux  
 2. increase the starting current  
 3. reduce the starting current  
 4. increase the main flux

Question ID : 630680503395  
Option 1 ID : 6306801967161  
Option 2 ID : 6306801967162  
Option 3 ID : 6306801967163  
Option 4 ID : 6306801967164  
Status : Answered  
Chosen Option : 3

**Q.66** Which of the following statements is/are accurate regarding working principle of a reluctance start motor?

1. In reluctance, motor reluctance torque can occur once a ferromagnetic object is located within an exterior magnetic field, then the object can be line up through the external magnetic field.
2. The torque can be generated among the two fields which twirling the object in the region of the line through the magnetic field so the torque is used on the object to provide less reluctance for the magnetic flux.

- Ans**
- 1. Both 1 and 2 are true
  - 2. Both 1 and 2 are not true
  - 3. Only 2 is true
  - 4. Only 1 is true

Question ID : 630680315931  
Option 1 ID : 6306801229395  
Option 2 ID : 6306801229396  
Option 3 ID : 6306801229394  
Option 4 ID : 6306801229393  
Status : Answered  
Chosen Option : 1

**Q.67** Which of the following photometric quantities measures the total amount of visible light emitted by a source in all directions?

- Ans**
- 1. Illuminance
  - 2. Luminous flux
  - 3. Luminance
  - 4. Luminous intensity

Question ID : 630680381635  
Option 1 ID : 6306801487472  
Option 2 ID : 6306801487471  
Option 3 ID : 6306801487474  
Option 4 ID : 6306801487473  
Status : Answered  
Chosen Option : 4

**Q.68** Which of the following statements are correct about DC welding machines-MG Set?

- I) It uses non-coated type electrodes; hence the cost of electrode is cheap.
- II) It uses coated type electrodes; hence the electrode is expensive.
- III) It is best suited for welding thinner sheets (6 mm).
- IV) The initial cost of the machine is less compared to AC welding machine.

- Ans**
- 1. I and IV
  - 2. I and III
  - 3. II and III
  - 4. II and IV

Question ID : 630680381623  
Option 1 ID : 6306801487424  
Option 2 ID : 6306801487423  
Option 3 ID : 6306801487425  
Option 4 ID : 6306801487426  
Status : Answered  
Chosen Option : 2

**Q.69** How much energy in “kilowatt hours” is consumed in operating ten 100-watt bulbs for 20 hours per day in a month (30 days)?

- Ans
- 1. 5000 kilowatt-hours
  - 2. 10000 kilowatt-hours
  - 3. 600000 kilowatt-hours
  - 4. 600 kilowatt-hours

Question ID : 630680504210  
Option 1 ID : 6306801970404  
Option 2 ID : 6306801970403  
Option 3 ID : 6306801970401  
Option 4 ID : 6306801970402  
Status : Answered  
Chosen Option : 4

**Q.70** In case of commercial installations, it is advisable to use light sources rendering high colour for installations so as to retain customer attention. This light should be as bright as its surroundings in the range of \_\_\_\_\_.

- Ans
- 1. 10 times
  - 2. 5 times
  - 3. 20 times
  - 4. 2 times

Question ID : 630680363636  
Option 1 ID : 6306801416290  
Option 2 ID : 6306801416289  
Option 3 ID : 6306801416292  
Option 4 ID : 6306801416291  
Status : Not Answered  
Chosen Option : --

**Q.71** At steady-state characteristics of a DC series motor, which of the following statements are correct?

- I) The speed-torque relationship of a DC series motor is non-linear.
- II) Both the armature current and the field current of a DC series motor decrease with increasing load torque.
- III) The efficiency of a DC series motor is generally higher compared to DC shunt motor.
- IV) The efficiency of a DC series motor is generally lower compared to DC shunt motor.

- Ans
- 1. Statements I, II and IV are correct
  - 2. Only statements I and IV are correct
  - 3. Only statements I and III are correct
  - 4. Statements I, II and III correct

Question ID : 630680381588  
Option 1 ID : 6306801487286  
Option 2 ID : 6306801487284  
Option 3 ID : 6306801487283  
Option 4 ID : 6306801487285  
Status : Answered  
Chosen Option : 2

**Q.72** Which of the following statements are correct about the errors in PMMC instruments?  
I. The swamping resistance is included in series with the moving coil to reduce errors.  
II. The swamping resistance is included in parallel with the moving coil to reduce errors.  
III. Errors are caused by weakening of the permanent magnet due to aging.  
IV. Errors are caused by weakening of the spring due to aging and temperature.

- Ans**
- 1. Only II, III and IV
  - 2. Only III and IV
  - 3. Only I, III and IV
  - 4. Only I and III

Question ID : 630680509363  
Option 1 ID : 6306801990741  
Option 2 ID : 6306801990740  
Option 3 ID : 6306801990739  
Option 4 ID : 6306801990742  
Status : Answered  
Chosen Option : 1

**Q.73** A Thevenin equivalent source comprises of which of the following elements?

- Ans**
- 1. A single current source in series with a resistance
  - 2. A single voltage source in series with a resistance
  - 3. A single voltage source in parallel with a resistance
  - 4. A single current source in parallel with a resistance

Question ID : 630680334688  
Option 1 ID : 6306801302011  
Option 2 ID : 6306801302010  
Option 3 ID : 6306801302009  
Option 4 ID : 6306801302012  
Status : Answered  
Chosen Option : 2

**Q.74** A 200-V, DC motor has an armature resistance of 0.5  $\Omega$ . It is drawing an armature current of 20 A driving a certain load. Calculate the induced EMF in the motor under this condition.

- Ans**
- 1. 175.8 V
  - 2. 203.7 V
  - 3. 190 V
  - 4. 199.3 V

Question ID : 630680503392  
Option 1 ID : 6306801967149  
Option 2 ID : 6306801967152  
Option 3 ID : 6306801967150  
Option 4 ID : 6306801967151  
Status : Answered  
Chosen Option : 3

**Q.75** In estimation and costing, the estimator must understand production cost, including labour and material cost of products, as well as discounts on purchases in order to:

- Ans
- 1. prepare schedules
  - 2. work out profit
  - 3. retain a list
  - 4. gain knowledge

Question ID : 630680333216  
Option 1 ID : 6306801296140  
Option 2 ID : 6306801296139  
Option 3 ID : 6306801296138  
Option 4 ID : 6306801296137  
Status : Answered  
Chosen Option : 1

**Q.76** The efficiency of a transmission line is \_\_\_\_\_.

- Ans
- 1. increased with increase in load p.f.
  - 2. independent of load p.f.
  - 3. increased with decrease in load p.f.
  - 4. decreased with increase in load p.f.

Question ID : 630680503832  
Option 1 ID : 6306801968891  
Option 2 ID : 6306801968890  
Option 3 ID : 6306801968889  
Option 4 ID : 6306801968892  
Status : Answered  
Chosen Option : 1

**Q.77** In the context of electronic components, if a number of resistances are connected and the reciprocal of the sum of individual resistances is equal to the sum of reciprocals of individual resistances, then the type of connection is called \_\_\_\_\_.

- Ans
- 1. parallel circuit
  - 2. series-parallel circuit
  - 3. series circuit
  - 4. grouping circuit

Question ID : 630680504215  
Option 1 ID : 6306801970422  
Option 2 ID : 6306801970423  
Option 3 ID : 6306801970421  
Option 4 ID : 6306801970424  
Status : Answered  
Chosen Option : 4

Q.78 Calculate the reading that will be given by a hot-wire voltmeter when it is connected across the terminals of a generator whose voltage is given by  $V(t) = (2 \sin wt + 3 \sin 3 wt + 5 \sin 5 wt)$  Volt.

- Ans
- 1.  $\sqrt{19}$  volts
  - 2.  $\sqrt{38}$  volts
  - 3. 10 volts
  - 4. 0 volt

Question ID : 630680209192  
Option 1 ID : 630680810986  
Option 2 ID : 630680810985  
Option 3 ID : 630680810984  
Option 4 ID : 630680810983  
Status : Answered  
Chosen Option : 1

Q.79 What happens to the reading of a wattmeter when the power factor of a circuit is changed from unity power factor to leading power factor?

- Ans
- 1. The wattmeter reading increases
  - 2. The wattmeter cannot measure the leading power factor
  - 3. The wattmeter reading remains unchanged
  - 4. The wattmeter reading decreases

Question ID : 630680509380  
Option 1 ID : 6306801990809  
Option 2 ID : 6306801990808  
Option 3 ID : 6306801990807  
Option 4 ID : 6306801990810  
Status : Not Answered  
Chosen Option : --

Q.80 In resistors, if the temperature is increased, then the resistance of alloys will \_\_\_\_\_.

- Ans
- 1. become zero
  - 2. increase
  - 3. decrease
  - 4. remain the same

Question ID : 630680504164  
Option 1 ID : 6306801970220  
Option 2 ID : 6306801970217  
Option 3 ID : 6306801970218  
Option 4 ID : 6306801970219  
Status : Answered  
Chosen Option : 3

Q.81 For a D-MOSFET when biased at  $V_{GS} = 0$  V having  $I_{DSS} = 30$  mA and  $V_{GS}(\text{off}) = -6$  V, the drain current is equal to \_\_\_\_\_.

- Ans
- 1. infinite
  - 2. 0 mA
  - 3. 30 mA
  - 4. 20 mA

Question ID : 630680502534  
Option 1 ID : 6306801963720  
Option 2 ID : 6306801963719  
Option 3 ID : 6306801963718  
Option 4 ID : 6306801963721  
Status : Answered  
Chosen Option : 3

Q.82 Cold reserve is the reserve capacity of the plant in \_\_\_\_\_ but NOT in \_\_\_\_\_.

- Ans
- 1. service, operation
  - 2. operation, service
  - 3. service, service
  - 4. operation, operation

Question ID : 630680509426  
Option 1 ID : 6306801990976  
Option 2 ID : 6306801990975  
Option 3 ID : 6306801990973  
Option 4 ID : 6306801990974  
Status : Answered  
Chosen Option : 1

Q.83 In electromagnetism, the magnetic field set up by a steady current density is described by \_\_\_\_\_.

- Ans
- 1. Ohm's law
  - 2. Laplace's law
  - 3. Faraday's law
  - 4. Lenz's law

Question ID : 630680504230  
Option 1 ID : 6306801970484  
Option 2 ID : 6306801970482  
Option 3 ID : 6306801970483  
Option 4 ID : 6306801970481  
Status : Answered  
Chosen Option : 2

**Q.84** In a transistor of common base connection, the ratio of change in the output current to change in the input current at a constant collector-base voltage is called \_\_\_\_\_.

- Ans
- 1. input resistance factor
  - 2. output resistance factor
  - 3. current amplification factor
  - 4. base current amplification factor

Question ID : 630680504248  
Option 1 ID : 6306801970554  
Option 2 ID : 6306801970556  
Option 3 ID : 6306801970555  
Option 4 ID : 6306801970553  
Status : Answered  
Chosen Option : 4

**Q.85** Which of the following is NOT broadly classified as a part of agrochemicals?

- Ans
- 1. Fungicides
  - 2. Digesticides
  - 3. Insecticides
  - 4. Herbicides

Question ID : 630680509429  
Option 1 ID : 6306801990985  
Option 2 ID : 6306801990988  
Option 3 ID : 6306801990987  
Option 4 ID : 6306801990986  
Status : Not Answered  
Chosen Option : --

**Q.86** Which of the following are the properties of a good heating element?

- I) It should have low resistivity.
- II) It should have high melting point.
- III) It should have low temperature coefficient of resistance.
- IV) It should have high specific heat capacity.

- Ans
- 1. I, II and III
  - 2. I, II and IV
  - 3. Only II and III
  - 4. II, III and IV

Question ID : 630680381611  
Option 1 ID : 6306801487378  
Option 2 ID : 6306801487375  
Option 3 ID : 6306801487376  
Option 4 ID : 6306801487377  
Status : Answered  
Chosen Option : 4

Q.87 In an induction motor if the rotor is locked, then the rotor frequency of the induction motor will be:

- Ans  1. equal to supply frequency  
 2. more than supply frequency  
 3. less than supply frequency  
 4. zero

Question ID : 630680509578  
Option 1 ID : 6306801991581  
Option 2 ID : 6306801991582  
Option 3 ID : 6306801991584  
Option 4 ID : 6306801991583  
Status : Answered  
Chosen Option : 1

Q.88 Which is the formula for transmission line efficiency?

- Ans  1.  $\text{Efficiency} = \frac{-\text{received power}}{\text{transmitted power}} \times 100$   
 2.  $\text{Efficiency} = \text{received power} + \text{transmitted power} \times 100$   
 3.  $\text{Efficiency} = \text{received power} - \text{transmitted power} \times 100$   
 4.  $\text{Efficiency} = \frac{\text{received power}}{\text{transmitted power}} \times 100$

Question ID : 630680503808  
Option 1 ID : 6306801968794  
Option 2 ID : 6306801968795  
Option 3 ID : 6306801968796  
Option 4 ID : 6306801968793  
Status : Answered  
Chosen Option : 4

Q.89 What is the reactive power of a 3-phase, delta-connected system with line voltage of 100 V and line current of 40 A if the phase difference between the voltage and the current is  $36.87^\circ$ ?

- Ans  1. 2.155 kVAR  
 2. 6.155 kVAR  
 3. 4.155 kVAR  
 4. 8.155 kVAR

Question ID : 630680504473  
Option 1 ID : 6306801971456  
Option 2 ID : 6306801971454  
Option 3 ID : 6306801971453  
Option 4 ID : 6306801971455  
Status : Answered  
Chosen Option : 3

Q.90 A balanced, delta-connected load has an impedance of  $3\angle 30^\circ \Omega/\text{phase}$ . What will be the impedance of an equivalent star-connected load?

- Ans
- 1.  $2\angle 60^\circ \Omega/\text{phase}$
  - 2.  $4\angle 30^\circ \Omega/\text{phase}$
  - 3.  $3\angle 90^\circ \Omega/\text{phase}$
  - 4.  $1\angle 30^\circ \Omega/\text{phase}$

Question ID : 630680504460  
Option 1 ID : 6306801971403  
Option 2 ID : 6306801971404  
Option 3 ID : 6306801971402  
Option 4 ID : 6306801971401  
Status : Answered  
Chosen Option : 4

Q.91  $I$ ,  $R$ ,  $X_L$ ,  $V_R$  and  $\cos\phi_R$  represent voltage regulation, line current, line resistance, line reactance, receiving end voltage and load power factor of transmission line, respectively. Also, receiving end voltage is more than the sending end voltage. Identify the correct expression for the leading load power factor.

- Ans
- 1.  $IR \cos\phi_R \gg IX_L \cos\phi_R$
  - 2.  $IR \cos\phi_R > IX_L \cos\phi_R$
  - 3.  $IR \cos\phi_R < IX_L \cos\phi_R$
  - 4.  $IR \cos\phi_R = IX_L \cos\phi_R$

Question ID : 630680503840  
Option 1 ID : 6306801968922  
Option 2 ID : 6306801968921  
Option 3 ID : 6306801968923  
Option 4 ID : 6306801968924  
Status : Not Answered  
Chosen Option : --

Q.92 An ideal BJT acts as an open switch when:

- Ans
- 1.  $V_{BE} = V_{CC}$  and  $I_B = 50 \mu\text{A}$
  - 2.  $V_{CE} = V_{BC}$  and  $I_c = 10 \text{ mA}$
  - 3.  $V_{CE} = 0$  and  $I_c = 10 \text{ mA}$
  - 4.  $V_{CE} = V_{CC}$  and  $I_c = 0$

Question ID : 630680502512  
Option 1 ID : 6306801963633  
Option 2 ID : 6306801963632  
Option 3 ID : 6306801963631  
Option 4 ID : 6306801963630  
Status : Not Answered  
Chosen Option : --

Q.93 A 400 V, 3-phase synchronous motor has armature current of 150 A. It has synchronous resistance and reactance of  $0.4 \Omega$  and  $4 \Omega$  per phase, respectively. If the power developed is 130 kW and the iron and friction losses are 1 kW, then the efficiency of the motor will be \_\_\_\_\_.

- Ans
- 1. 60%
  - 2. 81.6%
  - 3. 91.6%
  - 4. 75%

Question ID : 630680339334  
Option 1 ID : 6306801319907  
Option 2 ID : 6306801319905  
Option 3 ID : 6306801319906  
Option 4 ID : 6306801319908  
Status : Answered  
Chosen Option : 3

Q.94 Which of the following is a criterion used for selecting the ratio of the minimum fault current to the maximum load current in over-current protection of a transmission line?

- Ans
- 1. To increase the possibility of maloperation under normal operating conditions
  - 2. To reduce the maximum load current on the transmission line
  - 3. To prevent the possibility of maloperation under normal operating conditions
  - 4. To decrease the sensitivity of the protection system to faults

Question ID : 630680218624  
Option 1 ID : 630680848403  
Option 2 ID : 630680848406  
Option 3 ID : 630680848405  
Option 4 ID : 630680848404  
Status : Answered  
Chosen Option : 3

Q.95 Eight capacitors of the same value are connected in series. Their equivalent capacitance is  $200 \mu\text{F}$ , the capacitance of each capacitor is \_\_\_\_\_.

- Ans
- 1.  $25 \mu\text{F}$
  - 2.  $16 \mu\text{F}$
  - 3.  $160 \mu\text{F}$
  - 4.  $16 \times 10^{-4} \text{ F}$

Question ID : 630680504179  
Option 1 ID : 6306801970278  
Option 2 ID : 6306801970277  
Option 3 ID : 6306801970280  
Option 4 ID : 6306801970279  
Status : Answered  
Chosen Option : 1

Q.96 Which of the following statements are true regarding the DC load line?

- a) It is a straight line drawn between  $I_C$  and  $V_{CE}$ .
- b) The quiescent point lies on the load line.
- c) In the DC load line, when the collector emitter voltage  $V_{CE} = 0$ , the collector current is maximum.

- Ans
- 1. Only b and c
  - 2. All of a, b and c
  - 3. Only a and c
  - 4. Only a and b

Question ID : 630680502510  
Option 1 ID : 6306801963622  
Option 2 ID : 6306801963625  
Option 3 ID : 6306801963624  
Option 4 ID : 6306801963623  
Status : Answered  
Chosen Option : 2

Q.97 The Variation in the effective width of a base in a Bipolar Junction Transistor is due to a variation in the applied \_\_\_\_\_.

- Ans
- 1. emitter to collector voltage
  - 2. collector current
  - 3. base to collector voltage
  - 4. emitter current

Question ID : 630680502502  
Option 1 ID : 6306801963590  
Option 2 ID : 6306801963593  
Option 3 ID : 6306801963592  
Option 4 ID : 6306801963591  
Status : Answered  
Chosen Option : 1

Q.98 Consider the following statements about equivalent circuit with core losses of single-phase motor and select the correct option.

- 1. Slip at maximum torque is calculated with the help of maximum power transfer theorem.
- 2. Torque of an induction motor  $T = \frac{W}{P}$ , where  $W$  = speed in rad/sec,  $P$  = Power.

- Ans
- 1. Only 1 is true
  - 2. Only 2 is true
  - 3. Both 1 and 2 are true
  - 4. Both 1 and 2 are not true

Question ID : 630680333409  
Option 1 ID : 6306801296909  
Option 2 ID : 6306801296910  
Option 3 ID : 6306801296911  
Option 4 ID : 6306801296912  
Status : Answered  
Chosen Option : 3

Q.99 At light load power factor of induction motors is \_\_\_\_\_.

- Ans
- 1. 0
  - 2. 0.8 to 0.9
  - 3. 1
  - 4. 0.2 to 0.4

Question ID : 630680509552  
Option 1 ID : 6306801991477  
Option 2 ID : 6306801991478  
Option 3 ID : 6306801991480  
Option 4 ID : 6306801991479  
Status : Answered  
Chosen Option : 4

Q.100 The hysteresis torque during the working of hysteresis motor depends on which factor?

- Ans
- 1. Stator flux, rotor flux and sine of hysteresis angle
  - 2. Stator flux only
  - 3. Rotor flux only
  - 4. Stator and rotor flux only

Question ID : 630680509533  
Option 1 ID : 6306801991404  
Option 2 ID : 6306801991401  
Option 3 ID : 6306801991402  
Option 4 ID : 6306801991403  
Status : Answered  
Chosen Option : 1