

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

Roll Number	
Candidate Name	
Venue Name	
Exam Date	07/06/2024
Exam Time	5:00 PM - 7:00 PM
Subject	Junior Engineer 2024 Electrical Paper I

### Section : General Intelligence and Reasoning

**Q.1** What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?  
 $10 \div 8 \times 4 - 6 + 2 = ?$

Ans ☒ 1. 24

☒ 2. 26

☒ 3. 28

☒ 4. 22

Question ID : 630680376400

Option 1 ID : 6306801466668

Option 2 ID : 6306801466669

Option 3 ID : 6306801466667

Option 4 ID : 6306801466670

Status : Answered

Chosen Option : 1

**Q.2** Select the correct option that indicates the arrangement of the following words in a logical and meaningful order.

1. Cockroach
2. Owl
3. Ant
4. Horse
5. Fox

Ans ☒ 1. 3, 2, 5, 4, 1

☒ 2. 3, 1, 2, 5, 4

☒ 3. 3, 4, 1, 2, 5

☒ 4. 3, 5, 4, 1, 2

Question ID : 630680565829

Option 1 ID : 6306802212265

Option 2 ID : 6306802212266

Option 3 ID : 6306802212264

Option 4 ID : 6306802212267

Status : Answered

Chosen Option : 2

**Q.3** In a certain code language, 'LVCO' is coded as '12-22-3-15' and 'GIPN' is coded as '7-9-16-14'. What is the code for 'ZAPG' in the given language?

**Ans**  1. 26-1-16-7

 2. 24-5-14-8

 3. 22-5-15-6

 4. 22-2-11-5

Question ID : 630680375913

Option 1 ID : 6306801464724

Option 2 ID : 6306801464725

Option 3 ID : 6306801464723

Option 4 ID : 6306801464726

Status : Answered

Chosen Option : 1

**Q.4** The position(s) of how many letters will remain unchanged if each of the letters in the word HARDEST is arranged in the English alphabetical order?

**Ans**  1. Two

 2. Three

 3. Zero

 4. One

Question ID : 630680396636

Option 1 ID : 6306801546640

Option 2 ID : 6306801546641

Option 3 ID : 6306801546642

Option 4 ID : 6306801546643

Status : Answered

Chosen Option : 4

**Q.5** What should come in place of the question mark (?) in the given series?  
18, 30, 42, 54, 66, ?

**Ans**  1. 73

 2. 70

 3. 82

 4. 78

Question ID : 630680377843

Option 1 ID : 6306801472432

Option 2 ID : 6306801472431

Option 3 ID : 6306801472434

Option 4 ID : 6306801472433

Status : Answered

Chosen Option : 4

Q.6 Select the option in which the given figure is embedded (rotation is NOT allowed).

Ans

 1.

2.

 3.

 4.

Question ID : 630680524481

Option 1 ID : 6306802050023

Option 2 ID : 6306802050025

Option 3 ID : 6306802050026

Option 4 ID : 6306802050024

Status : Answered

Chosen Option : 2

**Q.7** In a certain code language, 'CASE' is coded as '8426' and 'SLIP' is coded as '9275'.  
What is the code for 'S' in the given language?

Ans  1. 9

 2. 8

 3. 6

4. 2

Question ID : **630680376552**

Option 1 ID : **6306801467276**

Option 2 ID : **6306801467275**

Option 3 ID : **6306801467277**

Option 4 ID : **6306801467278**

Status : **Answered**

Chosen Option : **4**

**Q.8** 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 : **630680462562**

Option 1 ID : **6306801806451**

Option 2 ID : **6306801806452**

Option 3 ID : **6306801806453**

Option 4 ID : **6306801806454**

Status : **Answered**

Chosen Option : **4**

**Q.9** This question consists of a pair of words which have a certain relationship to each other. Select the pair which has the same relationship.

(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.)

Brazil : Real

- Ans ☒ 1. Kenya : Yen  
☒ 2. Malaysia : Ringgit  
☒ 3. Cuba : Euro  
☒ 4. Indonesia : Rial

Question ID : 630680556090  
Option 1 ID : 6306802173738  
Option 2 ID : 6306802173739  
Option 3 ID : 6306802173736  
Option 4 ID : 6306802173737  
Status : Answered  
Chosen Option : 3

**Q.10** A, B, C, D, E, F, and G are sitting around a circular table, facing away from the centre (not necessarily in the same order). Only 3 people sit between B and D when counted from the left of D. B sits second to the left of E. G sits to the immediate right of C. A is not an immediate neighbour of D.  
Who is sitting to the immediate right of E?

- Ans ☒ 1. F  
☒ 2. A  
☒ 3. D  
☒ 4. B

Question ID : 630680376592  
Option 1 ID : 6306801467438  
Option 2 ID : 6306801467435  
Option 3 ID : 6306801467437  
Option 4 ID : 6306801467436  
Status : Answered  
Chosen Option : 1

**Q.11** Manoj starts from his home and drives 4 km towards the north. He then takes a left turn, drives 5 km, turns right, and drives 9 km. He then takes a left turn and drives 3 km and turns left then drives 5 km to reach his office.  
In which direction is the office with respect to his home?  
(All turns are 90° turns only, unless specified.)

- Ans ☒ 1. North-east  
☒ 2. South-east  
☒ 3. North-west  
☒ 4. West

Question ID : 630680376874  
Option 1 ID : 6306801468561  
Option 2 ID : 6306801468562  
Option 3 ID : 6306801468559  
Option 4 ID : 6306801468560  
Status : Answered  
Chosen Option : 3

**Q.12** Select the triad in which the numbers are related to each other in the same way as are the numbers of the given triads.

(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 /deleting/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, 9, 96)

(14, 7, 84)

Ans  1. (17, 12, 170)

 2. (15, 8, 130)

 3. (18, 11, 180)

 4. (10, 12, 120)

Question ID : 630680392055

Option 1 ID : 6306801528595

Option 2 ID : 6306801528597

Option 3 ID : 6306801528594

Option 4 ID : 6306801528596

Status : Not Answered

Chosen Option : --

**Q.13** What should come in place of the question mark (?) in the given series?

11, 18, 25, 32, 39, ?

Ans  1. 43

 2. 45

 3. 46

 4. 44

Question ID : 630680376728

Option 1 ID : 6306801467975

Option 2 ID : 6306801467977

Option 3 ID : 6306801467978

Option 4 ID : 6306801467976

Status : Answered

Chosen Option : 3

**Q.14** In a certain code language, 'GROW' is coded as '5397' and 'WILD' is coded as '6942'. What is the code for 'W' in the given code language?

Ans  1. 2

 2. 7

 3. 9

 4. 6

Question ID : 630680377194

Option 1 ID : 6306801469841

Option 2 ID : 6306801469839

Option 3 ID : 6306801469842

Option 4 ID : 6306801469840

Status : Answered

Chosen Option : 3

**Q.15** Which two numbers should be interchanged to make the given equation correct?

$$(165 \div 3) + (135 \div 5) - 45 + 33 = 66$$

(Note: Interchange should be done of entire number and not individual digits of a given number)

Ans ☒ 1. 45 and 33

☒ 2. 165 and 135

☒ 3. 33 and 5

☒ 4. 45 and 3

Question ID : 630680378793

Option 1 ID : 6306801476219

Option 2 ID : 6306801476220

Option 3 ID : 6306801476221

Option 4 ID : 6306801476222

Status : Answered

Chosen Option : 2

**Q.16** 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 conclusions logically follow(s) from the statements.

Statements:

All parrots are rats.

Some rats are lambs.

No lamb is a horse.

Conclusions:

(I) All rats are horses.

(II) Some lambs are parrots.

Ans ☒ 1. Neither conclusion (I) nor (II) follows

☒ 2. Only conclusion (II) follows

☒ 3. Both conclusions (I) and (II) follow

☒ 4. Only conclusion (I) follows

Question ID : 630680376883

Option 1 ID : 6306801468597

Option 2 ID : 6306801468596

Option 3 ID : 6306801468598

Option 4 ID : 6306801468595

Status : Answered

Chosen Option : 2

**Q.17** In a certain code language, 'HOPE' is coded as '7395' and 'OURS' is coded as '6582'. What is the code for 'O' in the given code language?

Ans ☒ 1. 5

☒ 2. 7

☒ 3. 6

☒ 4. 9

Question ID : 630680377191

Option 1 ID : 6306801469828

Option 2 ID : 6306801469827

Option 3 ID : 6306801469829

Option 4 ID : 6306801469830

Status : Answered

Chosen Option : 1



**Q.18** Sandeep starts walking towards the north from a point and walks 30 m. He turns to the right and walks 30 m. He turns to the left and walks 20 m. He turns to the left and walks 30 m. Finally, he turns to the left and walks 30 m. How far is he now from the starting point? (All turns are 90 degrees turns only unless specified.)

- Ans ☒ 1. 15 m  
☒ 2. 10 m  
☒ 3. 20 m  
☒ 4. 30 m

Question ID : 630680383314  
Option 1 ID : 6306801494158  
Option 2 ID : 6306801494156  
Option 3 ID : 6306801494157  
Option 4 ID : 6306801494155  
Status : Answered  
Chosen Option : 3

**Q.19** EHDL is related to ILZH in a certain way based on the English alphabetical order. In the same way, TFRA is related to XJNW. To which of the following is JUIP related, following the same logic?

- Ans ☒ 1. MYDL  
☒ 2. NZEK  
☒ 3. NYEL  
☒ 4. MZDK

Question ID : 630680378985  
Option 1 ID : 6306801476988  
Option 2 ID : 6306801476990  
Option 3 ID : 6306801476989  
Option 4 ID : 6306801476987  
Status : Answered  
Chosen Option : 3

**Q.20** DGFB is related to EFGA in a certain way based on the English alphabetical order. In the same way, EGHC is related to FFIB. To which of the following is FDHB related, following the same logic?

- Ans ☒ 1. GCIA  
☒ 2. GCAS  
☒ 3. GCER  
☒ 4. GCAO

Question ID : 630680378691  
Option 1 ID : 6306801475812  
Option 2 ID : 6306801475813  
Option 3 ID : 6306801475814  
Option 4 ID : 6306801475811  
Status : Answered  
Chosen Option : 1

**Q.21** The position(s) of how many letters will remain unchanged if each of the letters in the word **ABSOLUTE** is arranged in the reverse of the English alphabetical order?

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

Question ID : **630680450081**  
Option 1 ID : **6306801757482**  
Option 2 ID : **6306801757483**  
Option 3 ID : **6306801757484**  
Option 4 ID : **6306801757485**  
Status : **Answered**  
Chosen Option : **3**

**Q.22** Six babies Ria, Sia, Tia, Urja, Vani and Winnie are born one after the other but not necessarily in the same order. All of them were born in different cities. Only two babies were born before the one who was born in Raipur. Only one baby was born between Sia, who was born in Delhi and the baby born in Raipur. Tia was born before Urja and just after the baby born in Haridwar. Tia was not born in Raipur. Ria was born in Bhopal and just before Vani. Tia is born immediately before the baby born in Ballia. Winnie was not born in Pune.  
Who was born just after Sia and in which city?

- Ans ☒ 1. Vani, Raipur  
☒ 2. Tia, Pune  
☒ 3. Urja, Raipur  
☒ 4. Ria, Bhopal

Question ID : **630680521121**  
Option 1 ID : **6306802036911**  
Option 2 ID : **6306802036909**  
Option 3 ID : **6306802036910**  
Option 4 ID : **6306802036912**  
Status : **Not Answered**  
Chosen Option : **--**

**Q.23** 'AC 2' is related to 'DF 8' in a certain way based on the English alphabetical and numerical order. In the same way, 'IK 5' is related to 'LN 125'. To which of the following is 'PR 7' related following the same logic?

- Ans ☒ 1. RU 343  
☒ 2. SU 343  
☒ 3. TU 216  
☒ 4. SU 216

Question ID : **630680377766**  
Option 1 ID : **6306801472124**  
Option 2 ID : **6306801472123**  
Option 3 ID : **6306801472125**  
Option 4 ID : **6306801472126**  
Status : **Not Answered**  
Chosen Option : **--**

**Q.24** 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.)

Greece : Athens

- Ans  1. Norway : Muscat  
 2. Ireland : Dublin  
 3. Indonesia : Tehran  
 4. Jordan : Tokyo

Question ID : 630680565339

Option 1 ID : 6306802210333

Option 2 ID : 6306802210331

Option 3 ID : 6306802210330

Option 4 ID : 6306802210332

Status : Answered

Chosen Option : 1

**Q.25** In a certain code language,  
'A + B' means 'A is the wife of B',  
'A - B' means 'A is the father of B',  
'A × B' means 'A is the sister of B', and  
'A ÷ B' means 'A is the mother of B'.  
How is Q related to Y if 'Q + K - T × D ÷ Y'?

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

Question ID : 630680377673

Option 1 ID : 6306801471751

Option 2 ID : 6306801471752

Option 3 ID : 6306801471753

Option 4 ID : 6306801471754

Status : Answered

Chosen Option : 1

**Q.26** Select the figure that is embedded as a part of the main figure (X).  
(Rotation is NOT allowed.)

**Ans**

1.

✗ 2.

✗ 3.

✗ 4.

Question ID : **630680525286**

Option 1 ID : **6306802053230**

Option 2 ID : **6306802053229**

Option 3 ID : **6306802053228**

Option 4 ID : **6306802053231**

Status : **Answered**

Chosen Option : 1

**Q.27** Select the option in which the numbers share the same relationship as that shared by the given pairs of numbers.

100 : 90

70 : 60

(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. 90 : 70  
☒ 2. 130 : 110  
☒ 3. 150 : 145  
☒ 4. 130 : 120

Question ID : 630680387170

Option 1 ID : 6306801509375

Option 2 ID : 6306801509374

Option 3 ID : 6306801509376

Option 4 ID : 6306801509377

Status : Not Answered

Chosen Option : --

**Q.28** DCHE is related to HFPJ in a certain way based on the English alphabetical order. In the same way, CABF is related to FBDL. To which of the following is FIHE related, following the same logic?

- Ans ☒ 1. LRPJ  
☒ 2. PLRJ  
☒ 3. LPRG  
☒ 4. PRLJ

Question ID : 630680387610

Option 1 ID : 6306801511107

Option 2 ID : 6306801511106

Option 3 ID : 6306801511109

Option 4 ID : 6306801511108

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?  
MOK, LNJ, KMI, JLH, ?

- Ans ☒ 1. HPJ  
☒ 2. IKG  
☒ 3. HJG  
☒ 4. IKH

Question ID : 630680394865

Option 1 ID : 6306801539744

Option 2 ID : 6306801539747

Option 3 ID : 6306801539746

Option 4 ID : 6306801539745

Status : Answered

Chosen Option : 2

**Q.30** What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
LSC, NVG, PYK, RBO, ?

- Ans   ☒ 1. TES  
      ☐ 2. WHI  
      ☐ 3. UGT  
      ☐ 4. QDU

Question ID : 630680382495  
Option 1 ID : 6306801490895  
Option 2 ID : 6306801490898  
Option 3 ID : 6306801490896  
Option 4 ID : 6306801490897  
Status : Answered  
Chosen Option : 1

**Q.31** What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
FIK, GJL, HKM, ILN, ?

- Ans   ☐ 1. OJM  
      ☒ 2. JMO  
      ☐ 3. JOM  
      ☐ 4. OMJ

Question ID : 630680385048  
Option 1 ID : 6306801501079  
Option 2 ID : 6306801501081  
Option 3 ID : 6306801501080  
Option 4 ID : 6306801501078  
Status : Answered  
Chosen Option : 2

**Q.32** 14 is related to 54 following a certain logic. Following the same logic, 9 is related to 24.  
To which of the following is 21 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. 96  
      ☐ 2. 90  
      ☐ 3. 89  
      ☐ 4. 99

Question ID : 630680451927  
Option 1 ID : 6306801764786  
Option 2 ID : 6306801764787  
Option 3 ID : 6306801764788  
Option 4 ID : 6306801764789  
Status : Not Answered  
Chosen Option : --

**Q.33** What should come in place of ? in the given series?  
6, 30, 174, ?, 6222, 37326

- Ans ☒ 1. 1008  
☒ 2. 1058  
☒ 3. 1038  
☒ 4. 1098

Question ID : 630680388327  
Option 1 ID : 6306801513826  
Option 2 ID : 6306801513828  
Option 3 ID : 6306801513827  
Option 4 ID : 6306801513829  
Status : Not Answered  
Chosen Option : --

**Q.34** What will come in place of the question mark (?) in the following equation if '+' and 'x' are interchanged and '-' and '÷',interchanged ?  
 $4 + 11 \times 48 - 6 \div 3 = ?$

- Ans ☒ 1. 53  
☒ 2. 51  
☒ 3. 46  
☒ 4. 49

Question ID : 630680376479  
Option 1 ID : 6306801466986  
Option 2 ID : 6306801466983  
Option 3 ID : 6306801466985  
Option 4 ID : 6306801466984  
Status : Answered  
Chosen Option : 4

**Q.35** 18 is related to 162 following a certain logic. Following the same logic, 16 is related to 144. To which of the following is 25 related to 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. 215  
☒ 2. 225  
☒ 3. 235  
☒ 4. 245

Question ID : 630680396915  
Option 1 ID : 6306801547728  
Option 2 ID : 6306801547729  
Option 3 ID : 6306801547730  
Option 4 ID : 6306801547731  
Status : Not Answered  
Chosen Option : --

**Q.36** 2 is related to 26 following a certain logic. Following the same logic, 4 is related to 52.  
To which of the following is 7 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. 25

 2. 27

 3. 72

 4. 91

Question ID : 630680395518

Option 1 ID : 6306801542236

Option 2 ID : 6306801542237

Option 3 ID : 6306801542238

Option 4 ID : 6306801542239

Status : Not Answered

Chosen Option : --

**Q.37** PTOS is related to NRMQ in a certain way based on the English alphabetical order. In the same way, JNIM is related to HLGK. To which of the following is MQLP related, following the same logic?

Ans  1. KOJN

 2. OKNJ

 3. KONJ

 4. OKJN

Question ID : 630680376717

Option 1 ID : 6306801467932

Option 2 ID : 6306801467934

Option 3 ID : 6306801467933

Option 4 ID : 6306801467931

Status : Answered

Chosen Option : 4



**Q.38** 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 : **630680422221**  
Option 1 ID : **6306801647320**  
Option 2 ID : **6306801647321**  
Option 3 ID : **6306801647322**  
Option 4 ID : **6306801647323**  
Status : **Answered**  
Chosen Option : 2

**Q.39** E, F, G, H, P, Q, and R, are sitting around a circular table facing the centre (not necessarily in the same order) . Only three people sit between P and G when counted from the right of P. Only F sits between R and P when counted from the left of P. Only two people sit between R and E when counted from the left of R. H is NOT an immediate neighbour of G.  
How many people sit between F and Q when counted from the left of F?

**Ans**  1. Two

 2. Three

 3. One

 4. Four

Question ID : **630680376945**  
Option 1 ID : **6306801468844**  
Option 2 ID : **6306801468845**  
Option 3 ID : **6306801468843**  
Option 4 ID : **6306801468846**  
Status : **Not Answered**  
Chosen Option : --

Q.40

- Ans ☒ 1. 9  
☒ 2. 8  
☒ 3. 10  
☒ 4. 7

Question ID : 630680524409  
Option 1 ID : 6306802049737  
Option 2 ID : 6306802049736  
Option 3 ID : 6306802049738  
Option 4 ID : 6306802049735  
Status : Answered  
Chosen Option : 4

Q.41 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 sister of B', and  
'A ÷ B' means 'A is the husband of B'.  
How is H related to E if 'A - B ÷ H + C × D + E'?

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

Question ID : 630680378719  
Option 1 ID : 6306801475923  
Option 2 ID : 6306801475924  
Option 3 ID : 6306801475925  
Option 4 ID : 6306801475926  
Status : Not Answered  
Chosen Option : --

Q.42 If A means +, B means -, C means × and D means ÷, then what will come in place of the question mark (?) in the following equation?

$$21 D 7 C 4 A 10 B 13 = ?$$

- Ans ☒ 1. 11  
☒ 2. 9  
☒ 3. 10  
☒ 4. 8

Question ID : 630680388272  
Option 1 ID : 6306801513613  
Option 2 ID : 6306801513611  
Option 3 ID : 6306801513612  
Option 4 ID : 6306801513610  
Status : Not Answered  
Chosen Option : --

**Q.43** Arrange the following words in which they appear in an English dictionary and select the correct option.

1. Helical
2. Helium
3. Heighten
4. Hellenic
5. Heiress

Ans  1. 41352

 2. 35124

 3. 43152

 4. 53412

Question ID : 630680398745

Option 1 ID : 6306801554985

Option 2 ID : 6306801554984

Option 3 ID : 6306801554983

Option 4 ID : 6306801554982

Status : Answered

Chosen Option : 2

**Q.44**

Ans  1. DUE

 2. POE

 3. DOE

 4. CDE

Question ID : 630680378697

Option 1 ID : 6306801475835

Option 2 ID : 6306801475837

Option 3 ID : 6306801475836

Option 4 ID : 6306801475838

Status : Answered

Chosen Option : 3

**Q.45** 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 conclusions logically follow(s) from the statements.


Statements: All girls are honest. Priya is honest.

Conclusion 1: Priya is a girl.

Conclusion 2: All honest people are girls.

Ans  1. None of the conclusions follow

 2. Only conclusion (1) follows

 3. Both conclusion (1) and conclusion (2) follow

 4. Only conclusion (2) follows

Question ID : 630680381547

Option 1 ID : 6306801487122

Option 2 ID : 6306801487119

Option 3 ID : 6306801487121

Option 4 ID : 6306801487120

Status : Answered

Chosen Option : 2

**Q.46** Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.

**Ans**

1.

✗ 2.

✗ 3.

✗ 4.

Question ID : **630680524861**

Option 1 ID : **6306802051543**

Option 2 ID : **6306802051546**

Option 3 ID : **6306802051544**

Option 4 ID : **6306802051545**

Status : **Answered**

Chosen Option : 1

**Q.47** Select the figure from the options that can replace the question mark (?) and complete the given pattern.

**Ans**

 1.

 2.

 3.

 4.

Question ID : **630680524804**

Option 1 ID : **6306802051318**

Option 2 ID : **6306802051316**

Option 3 ID : **6306802051315**

Option 4 ID : **6306802051317**

Status : **Answered**

Chosen Option : **4**

**Q.48** What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
UTW, SRU, QPS, ONQ, MLO, ?

**Ans**  1. LKN

 2. KJN

 3. LJM

 4. KJM

Question ID : **630680395303**

Option 1 ID : **6306801541418**

Option 2 ID : **6306801541419**

Option 3 ID : **6306801541416**

Option 4 ID : **6306801541417**

Status : **Answered**

Chosen Option : **4**

**Q.49** 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)  
(9, 100, 90)  
(11, 120, 110)

- Ans ☒ 1. (14, 164, 154)  
☒ 2. (13, 260, 130)  
☒ 3. (15, 130, 120)  
☒ 4. (12, 130, 120)

Question ID : 630680375856  
Option 1 ID : 6306801464496  
Option 2 ID : 6306801464497  
Option 3 ID : 6306801464495  
Option 4 ID : 6306801464498  
Status : Not Answered  
Chosen Option : --

**Q.50** What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
LOR, PSV, TWZ, XAD, BEH, ?

- Ans ☒ 1. EIM  
☒ 2. GKL  
☒ 3. FJM  
☒ 4. FIL

Question ID : 630680378626  
Option 1 ID : 6306801475554  
Option 2 ID : 6306801475552  
Option 3 ID : 6306801475553  
Option 4 ID : 6306801475551  
Status : Not Answered  
Chosen Option : --

Section : General Awareness

**Q.1** Which of the following is the domestic first-class cricket championship in India?

- Ans ☒ 1. Ranji Trophy  
☒ 2. Durand Cup  
☒ 3. Santosh Trophy  
☒ 4. Thomas Cup

Question ID : 630680510857  
Option 1 ID : 6306801996558  
Option 2 ID : 6306801996561  
Option 3 ID : 6306801996559  
Option 4 ID : 6306801996560  
Status : Answered  
Chosen Option : 1

**Q.2 Which of the following is the structural and functional unit of an organism?**

- Ans
- ☐ 1. Mitochondria
  - ☐ 2. ATP
  - ☐ 3. Nucleus
  - ☒ 4. Cell

Question ID : 630680564558  
Option 1 ID : 6306802207168  
Option 2 ID : 6306802207170  
Option 3 ID : 6306802207169  
Option 4 ID : 6306802207167  
Status : Answered  
Chosen Option : 2

**Q.3 According to Census of India 2011, which is the second most populated state?**

- Ans
- ☐ 1. Bihar
  - ☐ 2. Tamil Nadu
  - ☒ 3. Maharashtra
  - ☐ 4. Rajasthan

Question ID : 630680477716  
Option 1 ID : 6306801866012  
Option 2 ID : 6306801866013  
Option 3 ID : 6306801866014  
Option 4 ID : 6306801866015  
Status : Answered  
Chosen Option : 3

**Q.4 Who among the following eminent musicians is a famous tabla player?**

- Ans
- ☐ 1. Ustad Bade Gulam Ali Khan
  - ☐ 2. Ustad Moinuddin Khan
  - ☐ 3. Ustad Abdul Rashid Khan
  - ☒ 4. Ustad Zakir Hussain

Question ID : 630680701404  
Option 1 ID : 6306802747556  
Option 2 ID : 6306802747553  
Option 3 ID : 6306802747554  
Option 4 ID : 6306802747555  
Status : Answered  
Chosen Option : 4

**Q.5 In which of the following countries was the revolutionary Ghadar Party formed?**

- Ans
- ☐ 1. Germany
  - ☐ 2. England
  - ☒ 3. The US
  - ☐ 4. Switzerland

Question ID : 630680572366  
Option 1 ID : 6306802238304  
Option 2 ID : 6306802238305  
Option 3 ID : 6306802238306  
Option 4 ID : 6306802238307  
Status : Not Answered  
Chosen Option : --

**Q.6** It is hot outside. It is cloudy and raining most of the time. It is the month of June.  
Which season is it?

- Ans
- ☐ 1. Winter
  - ☐ 2. Summer
  - ☒ 3. Monsoon
  - ☐ 4. Spring

Question ID : 630680546819  
Option 1 ID : 6306802137842  
Option 2 ID : 6306802137843  
Option 3 ID : 6306802137844  
Option 4 ID : 6306802137845  
Status : Answered  
Chosen Option : 4

**Q.7** Which Article of the Constitution of India mentions about enlargement of the jurisdiction of the Supreme Court?

- Ans
- ☒ 1. Article 138
  - ☐ 2. Article 140
  - ☐ 3. Article 142
  - ☐ 4. Article 144

Question ID : 630680497526  
Option 1 ID : 6306801943828  
Option 2 ID : 6306801943829  
Option 3 ID : 6306801943830  
Option 4 ID : 6306801943831  
Status : Answered  
Chosen Option : 3

**Q.8** Who said, "Literacy in itself is not Education"?

- Ans
- ☐ 1. BR Ambedkar
  - ☐ 2. Jawaharlal Nehru
  - ☒ 3. Mahatma Gandhi
  - ☐ 4. Bal Gangadhar Tilak

Question ID : 630680511591  
Option 1 ID : 6306801999487  
Option 2 ID : 6306801999489  
Option 3 ID : 6306801999486  
Option 4 ID : 6306801999488  
Status : Answered  
Chosen Option : 1

**Q.9** Who was sworn in as the Governor of Andhra Pradesh on 24 February 2023?

- Ans
- ☐ 1. Acharya Dev Vrat
  - ☒ 2. S Abdul Nazeer
  - ☐ 3. Gulab Chand Kataria
  - ☐ 4. Pratap Shukla

Question ID : 630680804274  
Option 1 ID : 6306803150829  
Option 2 ID : 6306803150827  
Option 3 ID : 6306803150828  
Option 4 ID : 6306803150830  
Status : Not Answered  
Chosen Option : --



**Q.10 Which of the following is a popular email client software?**

- Ans
- ☐ 1. Microsoft Word
  - ☐ 2. Adobe Photoshop
  - ☐ 3. Mozilla Firefox
  - ☒ 4. Microsoft Outlook

Question ID : 630680572009

Option 1 ID : 6306802236908

Option 2 ID : 6306802236909

Option 3 ID : 6306802236910

Option 4 ID : 6306802236911

Status : Answered

Chosen Option : 4

**Q.11 Which organelle is responsible for producing ATP, the cell's energy currency?**

- Ans
- ☐ 1. Nucleus
  - ☒ 2. Mitochondrion
  - ☐ 3. Golgi apparatus
  - ☐ 4. Endoplasmic reticulum

Question ID : 630680411630

Option 1 ID : 6306801605355

Option 2 ID : 6306801605356

Option 3 ID : 6306801605357

Option 4 ID : 6306801605358

Status : Answered

Chosen Option : 4

**Q.12 When did the government launch Start-up India Seed Fund Scheme?**

- Ans
- ☐ 1. 2020
  - ☒ 2. 2021
  - ☐ 3. 2022
  - ☐ 4. 2023

Question ID : 630680481018

Option 1 ID : 6306801878656

Option 2 ID : 6306801878657

Option 3 ID : 6306801878658

Option 4 ID : 6306801878659

Status : Not Answered

Chosen Option : --

**Q.13 When was the 'Mahatma Gandhi Series' of Indian Bank notes started?**

- Ans
- ☐ 1. 1991
  - ☒ 2. 1996
  - ☐ 3. 2000
  - ☐ 4. 1994

Question ID : 630680512479

Option 1 ID : 6306802002886

Option 2 ID : 6306802002888

Option 3 ID : 6306802002889

Option 4 ID : 6306802002887

Status : Answered

Chosen Option : 1

**Q.14** The central government, in 2021, set up an eight-member panel for framing a new law for drugs, cosmetics and medical devices. Who headed that panel?

- Ans ☒ 1. AK Pradhan  
☒ 2. Rajiv Wadhawan  
☒ 3. NL Meena  
☒ 4. Dr. VG Somani

Question ID : 63068053241  
Option 1 ID : 630680205067  
Option 2 ID : 630680205066  
Option 3 ID : 630680205069  
Option 4 ID : 630680205068  
Status : Not Answered  
Chosen Option : --

**Q.15** According to Article 243 I of the Constitution, the Governor of a state constitutes the Finance Commission for every \_\_\_\_\_.

- Ans ☒ 1. 2 years  
☒ 2. 3 years  
☒ 3. 5 years  
☒ 4. 7 years

Question ID : 630680493646  
Option 1 ID : 6306801928312  
Option 2 ID : 6306801928313  
Option 3 ID : 6306801928314  
Option 4 ID : 6306801928315  
Status : Not Answered  
Chosen Option : --

**Q.16** Which of the following are NOT contents of soil?

- Ans ☒ 1. Bacteria and fungi  
☒ 2. Minerals  
☒ 3. Steroids  
☒ 4. Grains of stones

Question ID : 630680546831  
Option 1 ID : 6306802137894  
Option 2 ID : 6306802137891  
Option 3 ID : 6306802137893  
Option 4 ID : 6306802137892  
Status : Answered  
Chosen Option : 3

**Q.17** Which of the following is a simple monocarboxylic acid containing two carbons?

- Ans ☒ 1. Acetic acid  
☒ 2. Valeric acid  
☒ 3. Capric acid  
☒ 4. Palmitic acid

Question ID : 630680402998  
Option 1 ID : 6306801571563  
Option 2 ID : 6306801571566  
Option 3 ID : 6306801571564  
Option 4 ID : 6306801571565  
Status : Not Answered  
Chosen Option : --

**Q.18** The 42<sup>nd</sup> Constitutional Amendment Act (1976) added three new words to the Preamble i.e. socialist, secular and \_\_\_\_\_.

- Ans
- ☒ 1. republic
  - ☒ 2. fraternity
  - ☒ 3. integrity
  - ☒ 4. democratic

Question ID : 630680804340

Option 1 ID : 6306803151093

Option 2 ID : 6306803151094

Option 3 ID : 6306803151092

Option 4 ID : 6306803151091

Status : Not Answered

Chosen Option : --

**Q.19** Which of the following is NOT an animal of Phylum Chordate?

- Ans
- ☒ 1. Rabbit
  - ☒ 2. Snake
  - ☒ 3. Earthworm
  - ☒ 4. Frog

Question ID : 630680542130

Option 1 ID : 6306802119464

Option 2 ID : 6306802119462

Option 3 ID : 6306802119463

Option 4 ID : 6306802119461

Status : Answered

Chosen Option : 3

**Q.20** Which organelle contains enzymes that help break down fatty acids and detoxify certain compounds in the cell?

- Ans
- ☒ 1. Centriole
  - ☒ 2. Peroxisome
  - ☒ 3. Vacuole
  - ☒ 4. Lysosome

Question ID : 630680540553

Option 1 ID : 6306802113290

Option 2 ID : 6306802113288

Option 3 ID : 6306802113289

Option 4 ID : 6306802113287

Status : Answered

Chosen Option : 2

**Q.21** Why is it safer for our hands to use a wooden spoon while cooking in a hot pan instead of using a metallic spoon?

- Ans
- ☒ 1. Wood is a good conductor of heat and helps in cooking.
  - ☒ 2. Wood adds nice flavours to the food being cooked.
  - ☒ 3. Wood is an insulator and does not heat up.
  - ☒ 4. Wood helps the food cook faster.

Question ID : 630680397593

Option 1 ID : 6306801550293

Option 2 ID : 6306801550294

Option 3 ID : 6306801550295

Option 4 ID : 6306801550296

Status : Answered

Chosen Option : 3

**Q.22** The \_\_\_\_\_ Health Card Scheme was launched by the Government of India in the year 2014-15.

- Ans ☒ 1. Forest  
☒ 2. Soil  
☒ 3. Mineral  
☒ 4. Water

Question ID : 630680511044  
Option 1 ID : 6306801997306  
Option 2 ID : 6306801997308  
Option 3 ID : 6306801997307  
Option 4 ID : 6306801997309  
Status : Not Answered  
Chosen Option : --

**Q.23** Certain grass-eating animals complete the digestion of food in two processes. First, they swallow partially digested food and then they regurgitate and chew upon that food again. What are such animals known as?

- Ans ☒ 1. Heterotrophs  
☒ 2. Regurgitates  
☒ 3. Autotrophs  
☒ 4. Ruminants

Question ID : 630680539637  
Option 1 ID : 6306802109673  
Option 2 ID : 6306802109674  
Option 3 ID : 6306802109675  
Option 4 ID : 6306802109676  
Status : Not Answered  
Chosen Option : --

**Q.24** What is the unit of electric current?

- Ans ☒ 1. Ampere  
☒ 2. Ohm  
☒ 3. Volt  
☒ 4. Watt

Question ID : 630680407785  
Option 1 ID : 6306801590078  
Option 2 ID : 6306801590080  
Option 3 ID : 6306801590079  
Option 4 ID : 6306801590081  
Status : Not Answered  
Chosen Option : --

**Q.25** Which directive principle was added by the 97<sup>th</sup> Amendment Act 2011?

- Ans ☒ 1. Promotion of co-operative societies  
☒ 2. Uniform civil code for the citizens  
☒ 3. Separation of judiciary from executive  
☒ 4. Organisation of village panchayats

Question ID : 630680511441  
Option 1 ID : 6306801998894  
Option 2 ID : 6306801998896  
Option 3 ID : 6306801998895  
Option 4 ID : 6306801998897  
Status : Not Answered  
Chosen Option : --

**Q.26 Identify the incorrect pair (River and its origin) from the following.**

- Ans ☒ 1. Godavari - Nasik district  
☒ 2. Krishna - Brahmagiri range  
☒ 3. Tapi - Satpura ranges  
☒ 4. Narmada - Amarkantak hills

Question ID : 630680510962  
Option 1 ID : 6306801996979  
Option 2 ID : 6306801996980  
Option 3 ID : 6306801996978  
Option 4 ID : 6306801996981  
Status : Not Answered  
Chosen Option : --

**Q.27 Which is the correct formula to calculate the formula unit mass of a compound?**

- Ans ☒ 1. Multiplication of all the atomic masses of all the atoms within the formula  
☒ 2. Summation of all the atomic weights of all the atoms within the formula  
☒ 3. Summation of all the atomic masses of all the atoms within the formula  
☒ 4. Multiplication of all the atomic weights of all the atoms within the formula

Question ID : 630680401909  
Option 1 ID : 6306801567382  
Option 2 ID : 6306801567383  
Option 3 ID : 6306801567384  
Option 4 ID : 6306801567385  
Status : Not Answered  
Chosen Option : --

**Q.28 Rank the following states in descending order of their percentage share of the population in the country's population, as per Census 2011.**

**Bihar, West Bengal, Rajasthan, Madhya Pradesh**

- Ans ☒ 1. Rajasthan-Madhya Pradesh-Bihar-West Bengal  
☒ 2. Madhya Pradesh-Bihar-Rajasthan-West Bengal  
☒ 3. Bihar-West Bengal-Madhya Pradesh-Rajasthan  
☒ 4. Bihar-Madhya Pradesh-Rajasthan-West Bengal

Question ID : 630680488628  
Option 1 ID : 6306801908531  
Option 2 ID : 6306801908532  
Option 3 ID : 6306801908533  
Option 4 ID : 6306801908534  
Status : Not Answered  
Chosen Option : --

Q.29 Which of the following does NOT affect the changes in the states of matter?

- A) Changing the kinetic energy in the particles of the matter
- B) Changing the temperature of the matter
- C) Changing the pressure on the matter
- D) Changing the colour of the matter

Ans ☒ 1. B

☒ 2. D

☒ 3. C

☒ 4. A

Question ID : 630680539201

Option 1 ID : 6306802107949

Option 2 ID : 6306802107951

Option 3 ID : 6306802107950

Option 4 ID : 6306802107948

Status : Not Answered

Chosen Option : --

Q.30 Which sulphur containing preservative is used to increase the shelf life of meat products such as fresh sausages and burgers?

Ans ☒ 1. Sodium metabisulphite

☒ 2. Sodium polysulfides

☒ 3. Sodium thiosulfate

☒ 4. Sodium phenyl sulfide

Question ID : 630680404447

Option 1 ID : 6306801577288

Option 2 ID : 6306801577289

Option 3 ID : 6306801577290

Option 4 ID : 6306801577291

Status : Not Answered

Chosen Option : --

Q.31 The process of measuring various physical and chemical properties of the rocks and fluids within a wellbore is known as:

Ans ☒ 1. well logging

☒ 2. drilling

☒ 3. reservoir modelling

☒ 4. enhanced oil recovery techniques

Question ID : 630680615287

Option 1 ID : 6306802407822

Option 2 ID : 6306802407823

Option 3 ID : 6306802407824

Option 4 ID : 6306802407825

Status : Not Answered

Chosen Option : --

**Q.32 Who among the following related to Patiala gharana?**

- Ans
- ☒ 1. Amir Khan
  - ☒ 2. Goswami Lalji Mahara
  - ☒ 3. Ghagge Nazir Khan
  - ☒ 4. Fateh Ali Khan and Ali Baksh Khan

Question ID : **630680412050**  
Option 1 ID : **6306801607037**  
Option 2 ID : **6306801607035**  
Option 3 ID : **6306801607038**  
Option 4 ID : **6306801607036**  
Status : **Not Answered**  
Chosen Option : --

**Q.33 Eukaryotic organisms can have very complex functions to sustain themselves. At the cellular level, these involve several different types of chemical functions like energy production, metabolism etc. What are the membrane-bound structures called, which are present within the cell to keep each of these functionalities separate?**

- Ans
- ☒ 1. Cytoplasm
  - ☒ 2. Plasma gel
  - ☒ 3. Organelles
  - ☒ 4. Nucleoid

Question ID : **630680403321**  
Option 1 ID : **6306801572793**  
Option 2 ID : **6306801572794**  
Option 3 ID : **6306801572795**  
Option 4 ID : **6306801572796**  
Status : **Not Answered**  
Chosen Option : --

**Q.34 Which ministry introduced the Press and Registration of Periodicals (PRP) Bill in Rajya Sabha on 1 August 2023?**

- Ans
- ☒ 1. Ministry of Electronics and Information Technology
  - ☒ 2. Ministry of Commerce and Industry
  - ☒ 3. Ministry of Information and Broadcasting
  - ☒ 4. Ministry of Corporate Affairs

Question ID : **630680411226**  
Option 1 ID : **6306801603656**  
Option 2 ID : **6306801603657**  
Option 3 ID : **6306801603658**  
Option 4 ID : **6306801603659**  
Status : **Not Answered**  
Chosen Option : --

**Q.35** According to Census of India 2011, which state/union territory has the second highest sex ratio?

- Ans
- ☒ 1. Chandigarh
  - ☒ 2. Tamil Nadu
  - ☒ 3. Puducherry
  - ☒ 4. Himachal Pradesh

Question ID : 630680477178

Option 1 ID : 6306801863881

Option 2 ID : 6306801863882

Option 3 ID : 6306801863883

Option 4 ID : 6306801863884

Status : Not Answered

Chosen Option : --

**Q.36** \_\_\_\_\_, a woman educated at home at Poona, published a book, Stripurushtulna, criticising the social differences between men and women.

- Ans
- ☒ 1. Kadambini Devi
  - ☒ 2. Pandita Ramabai
  - ☒ 3. Tarabai Shinde
  - ☒ 4. Savitribai Phule

Question ID : 630680511621

Option 1 ID : 6306801999607

Option 2 ID : 6306801999609

Option 3 ID : 6306801999608

Option 4 ID : 6306801999606

Status : Not Answered

Chosen Option : --

**Q.37** Which term refers to the increasing concentration of toxins within each successive link in the food chain?

- Ans
- ☒ 1. Denitrification
  - ☒ 2. Biomagnification
  - ☒ 3. Facilitation
  - ☒ 4. Stratification

Question ID : 630680404315

Option 1 ID : 6306801576763

Option 2 ID : 6306801576762

Option 3 ID : 6306801576765

Option 4 ID : 6306801576764

Status : Not Answered

Chosen Option : --



**Q.38** The Y-shaped proteinaceous structure produced by the immune cells to defend our body against harmful bacteria and viruses are known as:

Ans ☒ 1. immunoglobulin

☐ 2. amino acids

☐ 3. collagen

☐ 4. haemoglobin

Question ID : 630680457041

Option 1 ID : 6306801785109

Option 2 ID : 6306801785110

Option 3 ID : 6306801785111

Option 4 ID : 6306801785112

Status : Not Answered

Chosen Option : --

**Q.39** Who among the following became the first woman Chief Executive and Chairperson of the Railway Board on 1 September 2023?

Ans ☐ 1. Maria Kalavathy

☐ 2. Surekha Bhosale

☒ 3. Jaya Varma Sinha

☐ 4. Kabitha Mathur

Question ID : 630680412694

Option 1 ID : 6306801609599

Option 2 ID : 6306801609600

Option 3 ID : 6306801609601

Option 4 ID : 6306801609602

Status : Not Answered

Chosen Option : --

**Q.40** Which agency supported the Bihar State Rural Livelihoods Mission (Jeevika) in developing digital financial services?

Ans ☐ 1. SBI

☐ 2. RBI

☒ 3. SIDBI

☐ 4. SEBI

Question ID : 630680402042

Option 1 ID : 6306801567866

Option 2 ID : 6306801567867

Option 3 ID : 6306801567868

Option 4 ID : 6306801567869

Status : Not Answered

Chosen Option : --

**Q.41** What is the difference between a somatic cell and a reproductive cell?

- Ans ☒ 1. Somatic cells undergo mitotic cell division while reproductive cells undergo meiotic cell division.
- ☐ 2. The somatic cells have mitochondria but the reproductive cells do not have any mitochondria.
- ☐ 3. Somatic cells do not contain any chromosome while reproductive cells have their own chromosome.
- ☐ 4. The somatic cell and reproductive cell are neither diploid nor haploid.

Question ID : 630680399208

Option 1 ID : 6306801556779

Option 2 ID : 6306801556780

Option 3 ID : 6306801556781

Option 4 ID : 6306801556782

Status : Not Answered

Chosen Option : --

**Q.42** In how many different combinations do the standard ASCII codes come?

- Ans ☐ 1. 100
- ☐ 2. 64
- ☐ 3. 256
- ☒ 4. 128

Question ID : 630680379378

Option 1 ID : 6306801478556

Option 2 ID : 6306801478555

Option 3 ID : 6306801478558

Option 4 ID : 6306801478557

Status : Not Answered

Chosen Option : --

**Q.43** The Battle of Chandawar was fought between Muhammad Ghori and \_\_\_\_\_, a ruler of the Gahadavala dynasty, in 1194.

- Ans ☐ 1. Harishchandra
- ☐ 2. Govindachandra
- ☐ 3. Vijayachandra
- ☒ 4. Jaichand

Question ID : 630680511630

Option 1 ID : 6306801999642

Option 2 ID : 6306801999645

Option 3 ID : 6306801999644

Option 4 ID : 6306801999643

Status : Not Answered

Chosen Option : --

**Q.44 In which of the following Olympic Games did Dipa Karmakar participate?**

- Ans ☒ 1. Rio 2016  
☒ 2. London 2012  
☒ 3. Athens 2004  
☒ 4. Beijing 2008

Question ID : 630680435723  
Option 1 ID : 6306801700813  
Option 2 ID : 6306801700814  
Option 3 ID : 6306801700815  
Option 4 ID : 6306801700816  
Status : Not Answered  
Chosen Option : --

**Q.45 Who introduced the Digital Personal Data Protection Bill in the Lok Sabha on 3 August 2023?**

- Ans ☒ 1. Subrahmanyam Jaishankar  
☒ 2. Piyush Goyal  
☒ 3. Anurag Singh Thakur  
☒ 4. Ashwini Vaishnaw

Question ID : 630680411231  
Option 1 ID : 6306801603676  
Option 2 ID : 6306801603677  
Option 3 ID : 6306801603678  
Option 4 ID : 6306801603679  
Status : Not Answered  
Chosen Option : --

**Q.46 Where is the headquarters of the National Remote Sensing Centre (NRSC)?**

- Ans ☒ 1. Hyderabad  
☒ 2. Lucknow  
☒ 3. Bhopal  
☒ 4. Bhubaneswar

Question ID : 630680510983  
Option 1 ID : 6306801997063  
Option 2 ID : 6306801997062  
Option 3 ID : 6306801997065  
Option 4 ID : 6306801997064  
Status : Not Answered  
Chosen Option : --

**Q.47 Which Article of the Constitution of India prohibits discrimination on the grounds of religion, race and caste?**

- Ans ☒ 1. Article 15  
☒ 2. Article 16  
☒ 3. Article 17  
☒ 4. Article 18

Question ID : 630680426437  
Option 1 ID : 6306801663834  
Option 2 ID : 6306801663835  
Option 3 ID : 6306801663836  
Option 4 ID : 6306801663837  
Status : Not Answered  
Chosen Option : --

**Q.48 Who is the governor of Reserve Bank of India as of May 2023?**

- Ans
- ☐ 1. Urijit Patel
  - ☐ 2. YV Patel
  - ☒ 3. Shaktikanta Das
  - ☐ 4. Raguram Rajan

Question ID : 630680513854  
Option 1 ID : 6306802008042  
Option 2 ID : 6306802008043  
Option 3 ID : 6306802008044  
Option 4 ID : 6306802008041  
Status : Not Answered  
Chosen Option : --

**Q.49 What is the value of 1 electron volt (eV), which is especially used for nuclear science?**

- Ans
- ☒ 1.  $1.602 \times 10^{-19}$  joules
  - ☐ 2.  $1.902 \times 10^{-10}$  joules
  - ☐ 3.  $2.202 \times 10^{-11}$  joules
  - ☐ 4.  $1.202 \times 10^{-15}$  joules

Question ID : 630680402129  
Option 1 ID : 6306801568205  
Option 2 ID : 6306801568206  
Option 3 ID : 6306801568207  
Option 4 ID : 6306801568204  
Status : Not Answered  
Chosen Option : --

**Q.50 How does the 'Shram Suvidha Portal' of the Ministry of Labour and Employment contribute to transparency in labour law enforcement?**

- Ans
- ☐ 1. By providing child care centres
  - ☐ 2. By allowing women to work night shifts
  - ☒ 3. By uploading inspection reports within 48 hours
  - ☐ 4. By ensuring minimum wages for all employees

Question ID : 630680488096  
Option 1 ID : 6306801906443  
Option 2 ID : 6306801906444  
Option 3 ID : 6306801906445  
Option 4 ID : 6306801906446  
Status : Not Answered  
Chosen Option : --

Section : General Engineering Electrical

**Q.1** A Kaplan turbine is used for \_\_\_\_\_.

- Ans** ☒ 1. low heads and large quantities of water  
☐ 2. low heads and low quantities of water  
☐ 3. high heads and large quantities of water  
☐ 4. high heads and low quantities of water

Question ID : 630680509443  
Option 1 ID : 6306801991044  
Option 2 ID : 6306801991042  
Option 3 ID : 6306801991043  
Option 4 ID : 6306801991041  
Status : Answered  
Chosen Option : 2

**Q.2** Which of the following testing methods is NOT used to test an AC energy meter?

- Ans** ☐ 1. Creep test  
☐ 2. Long period dial test  
☐ 3. Starting test  
☒ 4. Braking test

Question ID : 630680198623  
Option 1 ID : 630680770451  
Option 2 ID : 630680770452  
Option 3 ID : 630680770453  
Option 4 ID : 630680770454  
Status : Answered  
Chosen Option : 4

**Q.3** What is the formula for calculating the magnitude of the mechanical force experienced by a current-carrying conductor perpendicular to the magnetic field, where B = magnetic flux density, I = Current and L = Length of the conductor?

- Ans** ☐ 1.  
☒ 2.  
☐ 3.  
☐ 4.

Question ID : 630680503336  
Option 1 ID : 6306801966927  
Option 2 ID : 6306801966925  
Option 3 ID : 6306801966926  
Option 4 ID : 6306801966928  
Status : Answered  
Chosen Option : 2

**Q.4** How does the power factor affect the reading of a wattmeter if voltage and current are unaltered?

- Ans ☐ 1. The reading increases with square of the power factor.
- ☐ 2. The reading is independent of the power factor.
- ☐ 3. The reading decreases with the power factor.
- ☒ 4. The reading increases with the power factor.

Question ID : 630680509369

Option 1 ID : 6306801990766

Option 2 ID : 6306801990765

Option 3 ID : 6306801990763

Option 4 ID : 6306801990764

Status : Not Answered

Chosen Option : --

**Q.5** In the context of electromagnetism, if a conductor is held in the right hand with the thumb pointing in the direction of the current, then the other fingers will point towards the \_\_\_\_\_.

- Ans ☐ 1. magnetic field intensity
- ☒ 2. direction of the magnetic field
- ☐ 3. current flowing through the conductor
- ☐ 4. length of the conductor

Question ID : 630680504231

Option 1 ID : 6306801970488

Option 2 ID : 6306801970487

Option 3 ID : 6306801970486

Option 4 ID : 6306801970485

Status : Answered

Chosen Option : 2

**Q.6** In electromagnetism of parallel magnetic circuits, the reluctance offered for two parallel paths will be \_\_\_\_\_.

- Ans ☐ 1. square for each path
- ☐ 2. quarter for each path
- ☐ 3. cube for each path
- ☒ 4. half for each path

Question ID : 630680504213

Option 1 ID : 6306801970413

Option 2 ID : 6306801970416

Option 3 ID : 6306801970414

Option 4 ID : 6306801970415

Status : Answered

Chosen Option : 4

**Q.7** A moving iron ammeter with a range of 0 to 1 amps has an internal resistance of 50 mΩ and an inductance of 0.1 MH. To increase the range to 0-10 Ampere for all operational frequencies, a shunt coil is connected. The shunt coils resistance in mΩ and time constant in milliseconds are each given as:

Ans ☒ 1. 5.55, 2

☒ 2. 2; 0.55

☒ 3. 11.1; 2

☒ 4. 2; 1

Question ID : 630680509387

Option 1 ID : 6306801990835

Option 2 ID : 6306801990837

Option 3 ID : 6306801990838

Option 4 ID : 6306801990836

Status : Not Answered

Chosen Option : --

**Q.8** A three-phase star-connected synchronous alternator of rating 22 kVA, 20 kV, 50 Hz has synchronous reactance of 8 Ω per phase. The induced voltage per phase is 20 kV and the line terminal voltage is 15 kV. Find the 3-phase maximum power of the machine.

Ans ☒ 1. 37.5 MW

☒ 2. 211.5 MW

☒ 3. 121. 5 MW

☒ 4. 112.5 MW

Question ID : 630680339333

Option 1 ID : 6306801319903

Option 2 ID : 6306801319902

Option 3 ID : 6306801319904

Option 4 ID : 6306801319901

Status : Not Answered

Chosen Option : --

**Q.9** In a magnetic circuit, when magnetic flux is passing across the air gap, then effective area of the gap increases and magnetic flux density decreases in the gap. This effect is known as \_\_\_\_\_.

Ans ☒ 1. magnetic hysteresis

☒ 2. magnetising force

☒ 3. magnetic fringing

☒ 4. magnetic leakage

Question ID : 630680504222

Option 1 ID : 6306801970450

Option 2 ID : 6306801970451

Option 3 ID : 6306801970449

Option 4 ID : 6306801970452

Status : Answered

Chosen Option : 1

**Q.10 Identify the INCORRECT statement regarding a nuclear power plant.**

- Ans ☒ 1. Graphite and Boron carbides are used as control rods.
- ☐ 2. The ordinary water is used as a moderator only after it is enriched with uranium.
- ☐ 3. Heavy water can be used as a coolant.
- ☐ 4. The fuel rods contain pellets of uranium.

Question ID : 630680509405  
Option 1 ID : 6306801990889  
Option 2 ID : 6306801990892  
Option 3 ID : 6306801990890  
Option 4 ID : 6306801990891  
Status : Answered  
Chosen Option : 3

**Q.11 Which of the following facts is correct for KCL?**

- Ans ☐ 1. Charge accumulation may or may not be possible
- ☐ 2. Possibility of charge accumulation at node
- ☐ 3. Energy may be stored at the node
- ☒ 4. Zero charge accumulation at node

Question ID : 630680340629  
Option 1 ID : 6306801324960  
Option 2 ID : 6306801324957  
Option 3 ID : 6306801324958  
Option 4 ID : 6306801324959  
Status : Answered  
Chosen Option : 2

**Q.12 The equivalent electrical circuit of a solar PV cell has a \_\_\_\_\_.**

- Ans ☐ 1. capacitor
- ☐ 2. inductor
- ☐ 3. transistor
- ☒ 4. diode

Question ID : 630680509437  
Option 1 ID : 6306801991019  
Option 2 ID : 6306801991020  
Option 3 ID : 6306801991018  
Option 4 ID : 6306801991017  
Status : Answered  
Chosen Option : 4

**Q.13 Which of the following statements is correct about inert gas metal arc welding?**

- Ans ☐ 1. In this method, flux is required.
- ☒ 2. In this method, concentration of heat is easily possible.
- ☐ 3. In this method, concentration of heat is difficult.
- ☐ 4. This method is particularly suitable for welding heavy metals.

Question ID : 630680389656  
Option 1 ID : 6306801519083  
Option 2 ID : 6306801519085  
Option 3 ID : 6306801519084  
Option 4 ID : 6306801519082  
Status : Answered  
Chosen Option : 4



**Q.14** Which of the following statements are correct about the maintenance factor?

- I) It is the ratio of illumination under normal working condition to the total lumen given out by the lamp.
- II) It is the ratio of illumination under normal working condition to the illumination when the things are perfectly clean.
- III) The accumulation of dust, dirt and smoke on the lamp decreases the maintenance factor.
- IV) It is the ratio of illumination when the things are perfectly clean to the illumination under normal working condition.

**Ans** ☒ 1. Statements II and III

☒ 2. Statements III and IV

☒ 3. Statements I and III

☒ 4. Only Statement II

Question ID : 630680401394

Option 1 ID : 6306801565368

Option 2 ID : 6306801565369

Option 3 ID : 6306801565366

Option 4 ID : 6306801565367

Status : Answered

Chosen Option : 3

**Q.15** Which of the following materials is widely used for high-temperature heating (1500 °C) applications such as in industrial furnaces and kilns?

**Ans** ☒ 1. Nickel chromium alloy

☒ 2. Silicon carbide

☒ 3. Bronze

☒ 4. Stainless steel

Question ID : 630680389649

Option 1 ID : 6306801519055

Option 2 ID : 6306801519057

Option 3 ID : 6306801519056

Option 4 ID : 6306801519054

Status : Answered

Chosen Option : 1

**Q.16** A 4 pole, 50 Hz IM operates at 7% slip. The frequency of EMF induced in the rotor will be \_\_\_\_\_.

**Ans** ☒ 1. 2.5 Hz

☒ 2. 3.5 Hz

☒ 3. 0.5 Hz

☒ 4. 1.5 Hz

Question ID : 630680509551

Option 1 ID : 6306801991475

Option 2 ID : 6306801991476

Option 3 ID : 6306801991473

Option 4 ID : 6306801991474

Status : Answered

Chosen Option : 2

**Q.17** The range of signal generating frequencies for a function generator is \_\_\_\_\_.

- Ans ☒ 1. 0.01 kHz to 100 Hz  
☒ 2. 0.01 Hz to 100 kHz  
☒ 3. 0.01 Hz to 100 Hz  
☒ 4. 0.01 kHz to 100 kHz

Question ID : 630680396179  
Option 1 ID : 6306801544830  
Option 2 ID : 6306801544829  
Option 3 ID : 6306801544831  
Option 4 ID : 6306801544828  
Status : Answered  
Chosen Option : 3

**Q.18** At higher forward voltages, a junction diode is likely to \_\_\_\_\_.

- Ans ☒ 1. burn out  
☒ 2. break down  
☒ 3. become noisy  
☒ 4. get saturated

Question ID : 630680502505  
Option 1 ID : 6306801963603  
Option 2 ID : 6306801963605  
Option 3 ID : 6306801963602  
Option 4 ID : 6306801963604  
Status : Answered  
Chosen Option : 2

**Q.19** What will be the total active power consumed by a 3-phase, delta-connected system, which is supplied with a line voltage of 230 V, when the value of the phase current is 15 A and the current lags the voltage by 30°?

- Ans ☒ 1. 8.963 kW  
☒ 2. 12.26 kW  
☒ 3. 10.25 kW  
☒ 4. 14.63 kW

Question ID : 630680504475  
Option 1 ID : 6306801971461  
Option 2 ID : 6306801971463  
Option 3 ID : 6306801971464  
Option 4 ID : 6306801971462  
Status : Not Answered  
Chosen Option : --

**Q.20** Which of the following statements is correct?

- Ans ☒ 1. Fault can be easily located in underground cables.  
☒ 2. Overhead lines are more costly as compared to underground cables.  
☒ 3. The possibility of supply interruption due to lightning is more with underground cables.  
☒ 4. The location of the fault in overhead lines can be found easily.

Question ID : 630680503860  
Option 1 ID : 6306801969004  
Option 2 ID : 6306801969001  
Option 3 ID : 6306801969003  
Option 4 ID : 6306801969002  
Status : Answered  
Chosen Option : 4

**Q.21** The value of inductance needed to store 4kWh of energy in a coil carrying a 2000A current is:

Ans ☒ 1. 7.2 H

☐ 2.  $7.2 \times 10^6$  H

☐ 3. 720 H

☐ 4. 72 H

Question ID : 630680504174

Option 1 ID : 6306801970260

Option 2 ID : 6306801970259

Option 3 ID : 6306801970258

Option 4 ID : 6306801970257

Status : Not Attempted and  
Marked For Review

Chosen Option : --

**Q.22** Which of the following statements is/are NOT true for the damper windings in alternators?

I) These are useful in preventing the hunting in alternators.

II) Usually, damper windings are provided in smooth cylindrical type rotor alternators.

III) Under normal working conditions, i.e., if machine is at synchronous speed, damper winding do not carry any currents.

IV) Damper windings are also used to provide starting torque in alternators.

Ans ☐ 1. IV

☐ 2. III

☒ 3. II

☐ 4. I

Question ID : 630680366349

Option 1 ID : 6306801426916

Option 2 ID : 6306801426915

Option 3 ID : 6306801426914

Option 4 ID : 6306801426913

Status : Answered

Chosen Option : 1

**Q.23**

Ans ☐ 1. Both 1 and 2

☐ 2. Neither 1 nor 2

☐ 3. Only 1

☒ 4. Only 2

Question ID : 630680334736

Option 1 ID : 6306801302203

Option 2 ID : 6306801302204

Option 3 ID : 6306801302201

Option 4 ID : 6306801302202

Status : Answered

Chosen Option : 1

**Q.24** A coil having 100 turns is placed in the magnetic field of 1m wb. Find the average EMF induced if the coil is moved in 0.2 seconds from the given field to a field of 0.4m wb.

- Ans ☒ 1. 10 volts  
☒ 2. 0.3 volt  
☒ 3. 3 volts  
☒ 4. 30 volts

Question ID : 630680504200  
Option 1 ID : 6306801970364  
Option 2 ID : 6306801970362  
Option 3 ID : 6306801970361  
Option 4 ID : 6306801970363  
Status : Answered  
Chosen Option : 3

**Q.25** How many types of dependent sources are there?

- Ans ☒ 1. 2  
☒ 2. 4  
☒ 3. 6  
☒ 4. 5

Question ID : 630680340662  
Option 1 ID : 6306801325089  
Option 2 ID : 6306801325090  
Option 3 ID : 6306801325092  
Option 4 ID : 6306801325091  
Status : Answered  
Chosen Option : 2

**Q.26** The operating point of a transistor known as \_\_\_\_\_.

- Ans ☒ 1. quiescent point  
☒ 2. cut-off point  
☒ 3. active point  
☒ 4. threshold point

Question ID : 630680502524  
Option 1 ID : 6306801963678  
Option 2 ID : 6306801963679  
Option 3 ID : 6306801963681  
Option 4 ID : 6306801963680  
Status : Answered  
Chosen Option : 4

**Q.27** What does the area under the Load Duration Curve represent?

- Ans ☒ 1. The total electricity consumption of consumers during the day  
☒ 2. The total number of units generated for the period considered  
☒ 3. The load factor of the power station  
☒ 4. The total power generated by a power plant during the day

Question ID : 630680374440  
Option 1 ID : 6306801458940  
Option 2 ID : 6306801458941  
Option 3 ID : 6306801458942  
Option 4 ID : 6306801458939  
Status : Answered  
Chosen Option : 1

**Q.28 What is the function of the pressure spring in a three-phase energy meter?**

- Ans ☒ 1. It provides deflection torque to the moving member.
- ☒ 2. It moves the aluminium discs in response to the torque generated by the magnetic field.
- ☒ 3. It provides mechanical support.
- ☒ 4. It maintains a constant pressure between the aluminium discs and the disc spindles.

Question ID : 630680509371  
Option 1 ID : 6306801990774  
Option 2 ID : 6306801990773  
Option 3 ID : 6306801990772  
Option 4 ID : 6306801990771  
Status : Answered  
Chosen Option : 4

**Q.29 What is the meaning of the term 'load factor'?**

- Ans ☒ 1. The ratio of peak load to average load over a year
- ☒ 2. The ratio of total energy consumption to total energy production
- ☒ 3. The ratio of average load to peak load over a year
- ☒ 4. The ratio of total energy production to total energy consumption

Question ID : 630680374425  
Option 1 ID : 6306801458880  
Option 2 ID : 6306801458881  
Option 3 ID : 6306801458879  
Option 4 ID : 6306801458882  
Status : Answered  
Chosen Option : 1

**Q.30 The scattering of molten metal droplets outside the weld zone, which can lead to surface irregularities is called weld\_\_\_\_\_.**

- Ans ☒ 1. under fill
- ☒ 2. burn-through
- ☒ 3. spatter
- ☒ 4. slag inclusions

Question ID : 630680381621  
Option 1 ID : 6306801487417  
Option 2 ID : 6306801487415  
Option 3 ID : 6306801487418  
Option 4 ID : 6306801487416  
Status : Answered  
Chosen Option : 3

**Q.31 If the value of the common base current gain ( $\alpha$ ) is 0.98, then the value of the common collector current gain ( $\gamma$ ) is \_\_\_\_\_.**

- Ans ☒ 1. 0.02
- ☒ 2. 50
- ☒ 3. 49
- ☒ 4. 98

Question ID : 630680333329  
Option 1 ID : 6306801296591  
Option 2 ID : 6306801296590  
Option 3 ID : 6306801296589  
Option 4 ID : 6306801296592  
Status : Answered  
Chosen Option : 1

**Q.32** The total inductance of two coupled coils in the series opposing and series aiding connections are 12 mH and 38 mH, respectively. Find the mutual inductance between the coils.

- Ans
- ☒ 1. 26 mH
  - ☒ 2. 13 mH
  - ☒ 3. 10 mH
  - ☒ 4. 6.5 mH

Question ID : 630680504193  
Option 1 ID : 6306801970334  
Option 2 ID : 6306801970335  
Option 3 ID : 6306801970333  
Option 4 ID : 6306801970336  
Status : Not Attempted and Marked For Review  
Chosen Option : --

**Q.33** Which of the following statements related to the speed control of DC shunt and series motors is correct?

- Ans
- ☒ 1. In a tapped field control when all the field turns are present in the circuit, the motor runs at the lowest speed.
  - ☒ 2. Field diverters and tapped field control methods are mostly used in DC shunt motors.
  - ☒ 3. In the Rheostatic control methods of shunt motors, the series resistor must be connected between the line and the motor.
  - ☒ 4. In series-parallel control, the motors are joined in parallel at lower speeds and series at higher speeds.

Question ID : 630680503388  
Option 1 ID : 6306801967134  
Option 2 ID : 6306801967133  
Option 3 ID : 6306801967135  
Option 4 ID : 6306801967136  
Status : Answered  
Chosen Option : 3

**Q.34**

- Ans
- ☒ 1.
  - ☒ 2.
  - ☒ 3.
  - ☒ 4.

Question ID : 630680502518  
Option 1 ID : 6306801963657  
Option 2 ID : 6306801963656  
Option 3 ID : 6306801963655  
Option 4 ID : 6306801963654  
Status : Answered  
Chosen Option : 1

**Q.35** If the speed of a 3-phase, 400 V, 50 Hz synchronous motor is trebled, the efficiency of the machine will \_\_\_\_\_.

- Ans ☐ 1. become zero
- ☒ 2. remain constant
- ☐ 3. reduce to one-third
- ☐ 4. become 3 times

Question ID : 630680337173  
Option 1 ID : 6306801311416  
Option 2 ID : 6306801311415  
Option 3 ID : 6306801311414  
Option 4 ID : 6306801311413  
Status : Answered  
Chosen Option : 2

**Q.36** Select the correct statement for a medium overhead transmission line.

- Ans ☐ 1. Load current is directly proportional to the load power factor.
- ☒ 2. Load current is inversely proportional to the load power factor.
- ☐ 3. Load current is directly proportional to the square of load power factor.
- ☐ 4. Load current is inversely proportional to the square of load power factor.

Question ID : 630680503841  
Option 1 ID : 6306801968925  
Option 2 ID : 6306801968926  
Option 3 ID : 6306801968927  
Option 4 ID : 6306801968928  
Status : Answered  
Chosen Option : 2

**Q.37** In the context of electromagnetism, the magnetic polarity of a coil of several turns can be determined by the \_\_\_\_\_.

- Ans ☐ 1. mechanism of force production
- ☒ 2. right-hand rule
- ☐ 3. left-hand rule
- ☐ 4. molecular theory

Question ID : 630680504232  
Option 1 ID : 6306801970492  
Option 2 ID : 6306801970489  
Option 3 ID : 6306801970490  
Option 4 ID : 6306801970491  
Status : Answered  
Chosen Option : 3

**Q.38** Which of the following statements regarding biochemical-based power plants is/are true?

- A) Methane is emitted along with carbon dioxide in aerobic digestion.
- B) Sewage gas represents a mix of carbon dioxide, methane and trace gas.
- C) Syngas is generated as a result of gasification in such a plant.

**Ans** ✓ 1. Only B and C

✗ 2. Only B

✗ 3. Only A and B

✗ 4. Only A and C

Question ID : 630680509412

Option 1 ID : 6306801990920

Option 2 ID : 6306801990918

Option 3 ID : 6306801990917

Option 4 ID : 6306801990919

Status : Answered

Chosen Option : 3

**Q.39** When is the error under testing of energy meter directly obtained?

**Ans** ✗ 1. The meter under test and the rotating substandard meter constants are 1.

✗ 2. The meter under test and the rotating substandard meter constants are different.

✗ 3. The meter under test and the rotating substandard meter constants are zero.

✓ 4. The meter under test and the rotating substandard meter constants are same.

Question ID : 630680396151

Option 1 ID : 6306801544719

Option 2 ID : 6306801544716

Option 3 ID : 6306801544718

Option 4 ID : 6306801544717

Status : Answered

Chosen Option : 4

**Q.40** What is the advantage of using the current grading in relay systems?

**Ans** ✗ 1. It improves the frequency stability of the power system.

✓ 2. It overcomes the long time delays occurring in graded time lag systems.

✗ 3. It reduces the impedance between two sub-stations.

✗ 4. It ensures quick tripping of the faulty circuit.

Question ID : 630680218623

Option 1 ID : 630680848402

Option 2 ID : 630680848401

Option 3 ID : 630680848400

Option 4 ID : 630680848399

Status : Answered

Chosen Option : 3



**Q.41** The torque developed in the squirrel cage induction motor with auto-starter is \_\_\_\_\_.

- Ans
- ☒ 1.  $K^2 \times \text{torque with direct switching}$
  - ☐ 2.  $k^2/\text{torque with direct switching}$
  - ☐ 3.  $K \times \text{torque with direct switching}$
  - ☐ 4.  $k/\text{torque with direct switching}$

Question ID : 630680509575  
Option 1 ID : 6306801991572  
Option 2 ID : 6306801991571  
Option 3 ID : 6306801991570  
Option 4 ID : 6306801991569  
Status : Answered  
Chosen Option : 3

**Q.42** Which of the following types of materials shows a movement from a weaker region to a stronger region of a non-uniform magnetic field?

- Ans
- ☐ 1. Non-magnetic material
  - ☐ 2. Diamagnetic material
  - ☒ 3. Paramagnetic material
  - ☐ 4. Insulating material

Question ID : 630680503967  
Option 1 ID : 6306801969429  
Option 2 ID : 6306801969430  
Option 3 ID : 6306801969431  
Option 4 ID : 6306801969432  
Status : Answered  
Chosen Option : 3

**Q.43** In the estimation and costing of public installations, which of the following factors is required, especially in long stretches of the road and even more on complicated intersections?

- Ans
- ☐ 1. Width of illumination Limitation of glare
  - ☒ 2. Visual guidance
  - ☐ 3. Limitations of glare
  - ☐ 4. Level of luminance

Question ID : 630680365724  
Option 1 ID : 6306801424422  
Option 2 ID : 6306801424423  
Option 3 ID : 6306801424421  
Option 4 ID : 6306801424424  
Status : Answered  
Chosen Option : 1

Q.44 Which of the following statements are true for synchronous motor losses?

- A) Friction and windage losses increase with the cube of speed.
- B) The Eddy current loss is reduced by laminating the core.
- C) Copper losses are independent of load.
- D) Core losses increase with the square of the load.

Ans ☒ 1. A and D

☒ 2. A and B

☒ 3. C and D

☒ 4. B and C

Question ID : 630680337174

Option 1 ID : 6306801311420

Option 2 ID : 6306801311417

Option 3 ID : 6306801311419

Option 4 ID : 6306801311418

Status : Answered

Chosen Option : 1

Q.45 Chargeable expenses are occasionally also termed as \_\_\_\_.

Ans ☒ 1. direct expense

☒ 2. lump sum expense

☒ 3. major expense

☒ 4. overhead expense

Question ID : 630680508372

Option 1 ID : 6306801986829

Option 2 ID : 6306801986832

Option 3 ID : 6306801986830

Option 4 ID : 6306801986831

Status : Answered

Chosen Option : 2

Q.46 A Lissajous patterns on a Cathode Ray Oscilloscope (CRO) has 8 vertical maximum values and 4 horizontal maximum values. The frequency of the horizontal input is 1600 Hz. Determine the frequency of the vertical input?

Ans ☒ 1. 200 Hz

☒ 2. 800 Hz

☒ 3. 600 Hz

☒ 4. 400 Hz

Question ID : 630680509395

Option 1 ID : 6306801990867

Option 2 ID : 6306801990870

Option 3 ID : 6306801990869

Option 4 ID : 6306801990868

Status : Answered

Chosen Option : 2

**Q.47 Medium transmission lines CANNOT be analysed by using which of the following methods?**

- Ans ☒ 1. Nominal T method  
☒ 2. Nominal Pi method  
☒ 3. Cognitive method  
☒ 4. Load end capacitance

Question ID : **630680503835**  
Option 1 ID : **6306801968904**  
Option 2 ID : **6306801968901**  
Option 3 ID : **6306801968902**  
Option 4 ID : **6306801968903**  
Status : **Answered**  
Chosen Option : 2

**Q.48 The method which can be used for the speed control of an induction motor from the stator side is \_\_\_\_\_.**

- Ans ☒ 1. V/R control  
☒ 2. adding rheostats in rotor circuit  
☒ 3. V/F control  
☒ 4. V/Z control

Question ID : **630680509571**  
Option 1 ID : **6306801991554**  
Option 2 ID : **6306801991555**  
Option 3 ID : **6306801991553**  
Option 4 ID : **6306801991556**  
Status : **Answered**  
Chosen Option : 3

**Q.49 The collector to the base bias configuration of a common emitter transistor implicitly employs:**

- Ans ☒ 1. current series negative feedback  
☒ 2. voltage series positive feedback  
☒ 3. current shunt negative feedback  
☒ 4. voltage shunt negative feedback

Question ID : **630680502519**  
Option 1 ID : **6306801963660**  
Option 2 ID : **6306801963658**  
Option 3 ID : **6306801963659**  
Option 4 ID : **6306801963661**  
Status : **Not Answered**  
Chosen Option : --

**Q.50 Which of the following is correct with reference to phasing out test on transformers?**

- Ans ☐ 1. This test is carried out both on 1 $\Phi$  and 3 $\Phi$  transformers to identify high-voltage winding.
- ☐ 2. This test is carried out both on 1 $\Phi$  and 3 $\Phi$  transformers to identify the primary and secondary winding.
- ☐ 3. This test is carried out only on 1 $\Phi$  transformer to identify primary and secondary winding.
- ☒ 4. This test is carried out only on the 3 $\Phi$  transformer to identify primary and secondary winding in the same phase.

Question ID : 630680380953

Option 1 ID : 6306801484802

Option 2 ID : 6306801484801

Option 3 ID : 6306801484800

Option 4 ID : 6306801484799

Status : Answered

Chosen Option : 1

**Q.51 A battery source of 20 V when connected to a load of 19  $\Omega$  draws a current of 1 A. What is the value of internal resistance of battery?**

- Ans ☐ 1. 2  $\Omega$
- ☐ 2. 39  $\Omega$
- ☐ 3. 0.5  $\Omega$
- ☒ 4. 1  $\Omega$

Question ID : 630680334685

Option 1 ID : 6306801301998

Option 2 ID : 6306801301999

Option 3 ID : 6306801302000

Option 4 ID : 6306801301997

Status : Answered

Chosen Option : 4

**Q.52 In regard to estimation and costing of public lighting, which of the following factors is NOT a fundamental criterion for the quality of public lighting?**

- Ans ☒ 1. Looping-in method
- ☐ 2. Level of luminance
- ☐ 3. Limitations of glare
- ☐ 4. Optical guidance

Question ID : 630680363646

Option 1 ID : 6306801416331

Option 2 ID : 6306801416330

Option 3 ID : 6306801416329

Option 4 ID : 6306801416332

Status : Answered

Chosen Option : 1

**Q.53** In the context of electrical signals, if the signal generated has a definite pattern that repeats itself at regular intervals of time, such a signal is called \_\_\_\_\_.

- Ans ☒ 1. periodic signal  
☐ 2. non-periodic signal  
☐ 3. independent signal  
☐ 4. dependent signal

Question ID : 630680504245  
Option 1 ID : 6306801970543  
Option 2 ID : 6306801970544  
Option 3 ID : 6306801970542  
Option 4 ID : 6306801970541  
Status : Answered  
Chosen Option : 1

**Q.54** In thermal power plant, the fire tube and water tube boilers are classified based on

- Ans ☐ 1. state of fuel  
☒ 2. tubular heating surface  
☐ 3. steam formation rate  
☐ 4. the combustion product formation

Question ID : 630680396806  
Option 1 ID : 6306801547309  
Option 2 ID : 6306801547310  
Option 3 ID : 6306801547311  
Option 4 ID : 6306801547308  
Status : Answered  
Chosen Option : 2

**Q.55** During the tender in estimation and costing, the guarantee of the tenderer to deposit the required security and enter in to the required agreement on intimation of the acceptance of his tender is called \_\_\_\_\_.

- Ans ☐ 1. valid money  
☐ 2. deposit money  
☐ 3. earned money  
☒ 4. earnest money

Question ID : 630680394250  
Option 1 ID : 6306801537290  
Option 2 ID : 6306801537293  
Option 3 ID : 6306801537292  
Option 4 ID : 6306801537291  
Status : Answered  
Chosen Option : 2

**Q.56** Which of the following statements is/are true regarding the principle of operation of a switched reluctance motor?

- 1) The motor relies on the interaction of magnetic fields to produce rotational motion.
- 2) The motor uses brushes and a commutator to produce rotational motion.
- 3) The motor uses permanent magnets to produce rotational motion.
- 4) The motor uses a series of switches to control the flow of current through its coils.

**Ans** ☒ 1. Only 1

☒ 2. Both 1 and 3

☒ 3. Both 1 and 2

☒ 4. Both 2 and 4

Question ID : 630680333394

Option 1 ID : 6306801296850

Option 2 ID : 6306801296851

Option 3 ID : 6306801296849

Option 4 ID : 6306801296852

Status : Answered

Chosen Option : 2

**Q.57** Two coupled inductors  $L_1 = 8\text{H}$  and  $L_2 = 32\text{H}$  have coefficient of coupling  $K = 0.4$ . The mutual inductance between them is

**Ans** ☒ 1. 102.4 H

☒ 2. 40 H

☒ 3. 6.4 H

☒ 4. 64 H

Question ID : 630680504181

Option 1 ID : 6306801970286

Option 2 ID : 6306801970287

Option 3 ID : 6306801970288

Option 4 ID : 6306801970285

Status : Answered

Chosen Option : 3

**Q.58** Which statement is NOT true for fixed drum type biogas power plant?

**Ans** ☒ 1. It has a lower cost.

☒ 2. It has no corrosion problem.

☒ 3. The gas production per cubic metre of digester is less.

☒ 4. It has constant pressure of biogas.

Question ID : 630680509424

Option 1 ID : 6306801990968

Option 2 ID : 6306801990965

Option 3 ID : 6306801990967

Option 4 ID : 6306801990966

Status : Answered

Chosen Option : 4

**Q.59** In case of installations in commercial buildings, evenly distributed lights can be obtained by the use of lenses, which reduces \_\_\_\_\_.

- Ans
- ☒ 1. spot light
  - ☒ 2. colour
  - ☒ 3. brightness
  - ☒ 4. decoration

Question ID : 630680363637  
Option 1 ID : 6306801416296  
Option 2 ID : 6306801416294  
Option 3 ID : 6306801416295  
Option 4 ID : 6306801416293  
Status : Answered  
Chosen Option : 3

**Q.60** The AC ripples can be reduced in a rectifier circuit by using capacitive filter by \_\_\_\_\_ the capacitance value and by \_\_\_\_\_ the input frequency.

- Ans
- ☒ 1. decreasing; increasing
  - ☒ 2. increasing; decreasing
  - ☒ 3. increasing; increasing
  - ☒ 4. decreasing; decreasing

Question ID : 630680502531  
Option 1 ID : 6306801963709  
Option 2 ID : 6306801963708  
Option 3 ID : 6306801963706  
Option 4 ID : 6306801963707  
Status : Answered  
Chosen Option : 2

**Q.61** The efficiency of a 60 Hz, 6-pole, 1000 rpm 3-phase induction motor is \_\_\_\_\_.

- Ans
- ☒ 1.
  - ☒ 2.
  - ☒ 3.
  - ☒ 4.

Question ID : 630680509562  
Option 1 ID : 6306801991518  
Option 2 ID : 6306801991519  
Option 3 ID : 6306801991520  
Option 4 ID : 6306801991517  
Status : Answered  
Chosen Option : 4

**Q.62** A sinusoidal alternating voltage of time period 36 ms has the maximum value of 250 V. Its value will reach  $-125$  V (half the value of negative maximum) after \_\_\_\_\_ milliseconds.

- Ans
- ☒ 1. 18
  - ☒ 2. 3
  - ☒ 3. 9
  - ☒ 4. 21

Question ID : 630680383094

Option 1 ID : 6306801493284

Option 2 ID : 6306801493285

Option 3 ID : 6306801493286

Option 4 ID : 6306801493283

Status : Answered

Chosen Option : 3

**Q.63** What will be the stored energy by a 100 mH inductor when 1 A current is flowing through it?

- Ans
- ☒ 1. 0.05 J
  - ☒ 2. 0.01 J
  - ☒ 3. 0.005 J
  - ☒ 4. 0.001 J

Question ID : 630680340717

Option 1 ID : 6306801325312

Option 2 ID : 6306801325310

Option 3 ID : 6306801325311

Option 4 ID : 6306801325309

Status : Answered

Chosen Option : 1

**Q.64** The back EMF in a DC motor opposes the supply voltage. This is explained by \_\_\_\_\_.

- Ans
- ☒ 1. Fleming's right hand rule
  - ☒ 2. Faraday's laws of electromagnetic induction
  - ☒ 3. Fleming's left hand rule
  - ☒ 4. Lenz's law

Question ID : 630680503394

Option 1 ID : 6306801967159

Option 2 ID : 6306801967157

Option 3 ID : 6306801967158

Option 4 ID : 6306801967160

Status : Answered

Chosen Option : 4



**Q.65** A  $4\Omega$  resistor has a specified maximum power dissipation of 784 W. Calculate its maximum current level.

Ans ☒ 1. 14 A

☒ 2. 196 A

☒ 3. 16 A

☒ 4. 10 A

Question ID : 630680504207

Option 1 ID : 6306801970390

Option 2 ID : 6306801970391

Option 3 ID : 6306801970392

Option 4 ID : 6306801970389

Status : Answered

Chosen Option : 1

**Q.66** Which of the following triggers the failure of successive parts?

Ans ☒ 1. Non-cascade tripping

☒ 2. Load shedding

☒ 3. Brown out

☒ 4. Incipient fault in power transformer

Question ID : 630680333375

Option 1 ID : 6306801296775

Option 2 ID : 6306801296776

Option 3 ID : 6306801296774

Option 4 ID : 6306801296773

Status : Not Answered

Chosen Option : --

**Q.67** An R-L series circuit, where  $R = 10\Omega$  and  $L = 0.056\text{ H}$ , is connected to an AC supply of frequency 50 Hz. The magnitude of impedance of the circuit is:

Ans ☒ 1.  $5.23\Omega$

☒ 2.  $30.23\Omega$

☒ 3.  $10.23\Omega$

☒ 4.  $20.23\Omega$

Question ID : 630680504465

Option 1 ID : 6306801971423

Option 2 ID : 6306801971424

Option 3 ID : 6306801971422

Option 4 ID : 6306801971421

Status : Not Answered

Chosen Option : --

**Q.68** Which of the following is an example of an electrostatic type instrument?

Ans ☒ 1. Energy meter

☒ 2. Kelvin multicellular voltmeter

☒ 3. Hot wire instrument

☒ 4. Wattmeter

Question ID : 630680509376

Option 1 ID : 6306801990794

Option 2 ID : 6306801990792

Option 3 ID : 6306801990791

Option 4 ID : 6306801990793

Status : Answered

Chosen Option : 4

**Q.69** In regard to the construction of a synchronous alternator, hydro alternators have \_\_\_\_\_.

- Ans
- ☐ 1. larger diameter and high speed
  - ☐ 2. high speed and smaller diameter
  - ☐ 3. low speed and smaller diameter
  - ☒ 4. larger diameter and low speed

Question ID : 630680337169

Option 1 ID : 6306801311399

Option 2 ID : 6306801311398

Option 3 ID : 6306801311400

Option 4 ID : 6306801311397

Status : Answered

Chosen Option : 1

**Q.70** Which of the following factors will NOT affect the selection of an inductor?

- Ans
- ☐ 1. Power loss
  - ☒ 2. Dielectric constant
  - ☐ 3. Quality factor
  - ☐ 4. Current rating

Question ID : 630680504239

Option 1 ID : 6306801970519

Option 2 ID : 6306801970520

Option 3 ID : 6306801970517

Option 4 ID : 6306801970518

Status : Answered

Chosen Option : 1

**Q.71** A combination of integral-cycle control and switching-instant control on the applied voltage wave is employed in IM for \_\_\_\_\_.

- Ans
- ☒ 1. smooth speed control
  - ☐ 2. rotor resistance control only
  - ☐ 3. stator resistance control
  - ☐ 4. frequency control

Question ID : 630680509566

Option 1 ID : 6306801991534

Option 2 ID : 6306801991533

Option 3 ID : 6306801991536

Option 4 ID : 6306801991535

Status : Answered

Chosen Option : 3

**Q.72** A 400 V, 30 kVA, single-phase alternator has an effective armature resistance of  $0.3\ \Omega$ . An excitation current of 20 A produces 266 A armature current on short-circuit and an EMF of 400 V on open-circuit. The synchronous impedance and synchronous reactance of the alternator are, respectively, \_\_\_\_\_.

- Ans ☒ 1.  $1.46\ \Omega$  and  $1.5\ \Omega$   
☒ 2.  $1.5\ \Omega$  and  $1.46\ \Omega$   
☒ 3.  $20\ \Omega$  and  $0.3\ \Omega$   
☒ 4.  $0.3\ \Omega$  and  $20\ \Omega$

Question ID : 630680337166  
Option 1 ID : 6306801311385  
Option 2 ID : 6306801311386  
Option 3 ID : 6306801311388  
Option 4 ID : 6306801311387  
Status : Not Answered  
Chosen Option : --

**Q.73**

- Ans ☒ 1.  
☒ 2.  
☒ 3.  
☒ 4.

Question ID : 630680209226  
Option 1 ID : 630680811120  
Option 2 ID : 630680811122  
Option 3 ID : 630680811121  
Option 4 ID : 630680811119  
Status : Answered  
Chosen Option : 2

**Q.74** Which of the following represents the value of parameters A and D for a transmission line in end condenser method?

- Ans ☒ 1.  $A = 1 + YZ$ ,  $D = 1$   
☒ 2.  $A = 1$ ;  $D = 1 + ZY$   
☒ 3.  $A = 1 - ZY$ ;  $D = 1 + ZY$   
☒ 4.  $A = 1 + ZY$ ;  $D = 1 + ZY$

Question ID : 630680503812  
Option 1 ID : 6306801968810  
Option 2 ID : 6306801968812  
Option 3 ID : 6306801968811  
Option 4 ID : 6306801968809  
Status : Not Answered  
Chosen Option : --

**Q.75** Ten resistors having the same value of resistance i.e. 10 ohm, are connected in parallel. What will be the equivalent resistance of this connection?

- Ans ☒ 1. 2 ohm  
☒ 2. 5 ohm  
☒ 3. 100 ohm  
☒ 4. 1 ohm

Question ID : 630680340673  
Option 1 ID : 6306801325135  
Option 2 ID : 6306801325136  
Option 3 ID : 6306801325134  
Option 4 ID : 6306801325133  
Status : Answered  
Chosen Option : 4

**Q.76** If the distance between the plates of a parallel plate capacitor is increased 10 times and the area is reduced to one-fourth, then its capacitance \_\_\_\_\_.

- Ans ☒ 1.  
☒ 2.  
☒ 3.  
☒ 4.

Question ID : 630680504182  
Option 1 ID : 6306801970289  
Option 2 ID : 6306801970291  
Option 3 ID : 6306801970292  
Option 4 ID : 6306801970290  
Status : Answered  
Chosen Option : 1

**Q.77** Determine the force required to separate two magnetic surfaces with a contact area of  $4\pi \text{ cm}^2$  and the magnetic flux density across the surface is  $1 \text{ wb/m}^2$ .

- Ans ☒ 1. 1000 N  
☒ 2. 800 N  
☒ 3. 100 N  
☒ 4. 500 N

Question ID : 630680504203  
Option 1 ID : 6306801970373  
Option 2 ID : 6306801970376  
Option 3 ID : 6306801970375  
Option 4 ID : 6306801970374  
Status : Not Answered  
Chosen Option : --

**Q.78** In regard to installations of street lighting, what is the average illumination level of Class A1 installations used in important shopping centres and at road junctions?

- Ans
- ☐ 1. 40 lumens/m<sup>2</sup>
  - ☐ 2. 10 lumens/m<sup>2</sup>
  - ☒ 3. 30 lumens/m<sup>2</sup>
  - ☐ 4. 20 lumens/m<sup>2</sup>

Question ID : 630680363643  
Option 1 ID : 6306801416320  
Option 2 ID : 6306801416317  
Option 3 ID : 6306801416319  
Option 4 ID : 6306801416318  
Status : Answered  
Chosen Option : 3

**Q.79** The line voltage of a delta connected three phase circuit is 415 V. The phase voltage is:

- Ans
- ☐ 1. 240 V
  - ☒ 2. 415 V
  - ☐ 3. 230 V
  - ☐ 4. 220 V

Question ID : 630680334741  
Option 1 ID : 6306801302223  
Option 2 ID : 6306801302224  
Option 3 ID : 6306801302222  
Option 4 ID : 6306801302221  
Status : Answered  
Chosen Option : 4

**Q.80** In heating effect, if 'I' is the current flowing through the conductor in 't' seconds having a resistance 'R', then the electrical energy supplied is \_\_\_\_\_.

- Ans
- ☐ 1.  $IR^2/t$  joules
  - ☐ 2.  $I^2R/t$  joules
  - ☒ 3.  $I^2Rt$  joules
  - ☐ 4.  $IR^2t$  joules

Question ID : 630680504171  
Option 1 ID : 6306801970248  
Option 2 ID : 6306801970247  
Option 3 ID : 6306801970246  
Option 4 ID : 6306801970245  
Status : Answered  
Chosen Option : 2

**Q.81** The value of a series resistor required to limit the current through an electric bulb to 40 mA with a forward voltage drop of 4V when connected to 16 V supply is \_\_\_\_\_.

- Ans
- ☒ 1. 300  $\Omega$
  - ☐ 2. 100  $\Omega$
  - ☐ 3. 1000  $\Omega$
  - ☐ 4. 20  $\Omega$

Question ID : 630680504141  
Option 1 ID : 6306801970125  
Option 2 ID : 6306801970126  
Option 3 ID : 6306801970127  
Option 4 ID : 6306801970128  
Status : Not Answered  
Chosen Option : --

**Q.82** In order to prevent creeping in an energy meter, which of the following measures is adopted?

- Ans ☒ 1. Two, diametrically opposite holes are drilled on the aluminium disc.
- ☐ 2. Two, diametrically opposite holes are drilled on the central limb.
- ☐ 3. A shading band is provided on the central limb of the shunt magnet.
- ☐ 4. A temperature shunt is used on the brake magnet.

Question ID : 630680509373  
Option 1 ID : 6306801990779  
Option 2 ID : 6306801990780  
Option 3 ID : 6306801990781  
Option 4 ID : 6306801990782  
Status : Answered  
Chosen Option : 2

**Q.83** A coil of inductance 10 H and resistance 40 ohm is connected in series with a capacitance and supplied by a source of variable frequency. If the maximum current is found at frequency 1000 rad/sec, then Q-factor of the circuit will be \_\_\_\_\_.

- Ans ☐ 1. 25
- ☒ 2. 250
- ☐ 3. 200
- ☐ 4. 100

Question ID : 630680209214  
Option 1 ID : 630680811072  
Option 2 ID : 630680811071  
Option 3 ID : 630680811074  
Option 4 ID : 630680811073  
Status : Not Answered  
Chosen Option : --

**Q.84** The receiving end voltage of a radial distribution network is 24 kV. What will be the sending end voltage, if the voltage drop is calculated 25% of receiving end voltage?

- Ans ☐ 1. 36 kV
- ☒ 2. 30 kV
- ☐ 3. 18 kV
- ☐ 4. 32 kV

Question ID : 630680503848  
Option 1 ID : 6306801968956  
Option 2 ID : 6306801968954  
Option 3 ID : 6306801968953  
Option 4 ID : 6306801968955  
Status : Answered  
Chosen Option : 2

**Q.85** To prevent rusting in electric iron, the plates of the bottom surface and edges are made of \_\_\_\_\_.

- Ans
- ☐ 1. mica
  - ☐ 2. heavy iron
  - ☐ 3. asbestos
  - ☒ 4. heavy chromium

Question ID : 630680504256  
Option 1 ID : 6306801970585  
Option 2 ID : 6306801970587  
Option 3 ID : 6306801970586  
Option 4 ID : 6306801970588  
Status : Answered  
Chosen Option : 1

**Q.86** How does the load factor impact the cost of a unit (kWh) of electricity?

- Ans
- ☐ 1. Load factor only affects the demand charges, not the generation costs.
  - ☒ 2. Higher load factor leads to lower generation costs per unit.
  - ☐ 3. Higher load factor leads to higher generation costs per unit.
  - ☐ 4. Load factor has no impact on the generation costs per unit.

Question ID : 630680374432  
Option 1 ID : 6306801458910  
Option 2 ID : 6306801458908  
Option 3 ID : 6306801458907  
Option 4 ID : 6306801458909  
Status : Answered  
Chosen Option : 1

**Q.87** Which of the following statement is true regarding End Condenser method used for the performance analysis of medium transmission line?

- Ans
- ☒ 1. Line capacitance is lumped at the receiving end during the analysis.
  - ☐ 2. Line capacitance is lumped at the sending end during the analysis.
  - ☐ 3. Line capacitance is considered distributed parameter during the analysis.
  - ☐ 4. Line capacitance is lumped between resistance and Inductance during analysis.

Question ID : 630680503838  
Option 1 ID : 6306801968916  
Option 2 ID : 6306801968914  
Option 3 ID : 6306801968913  
Option 4 ID : 6306801968915  
Status : Not Answered  
Chosen Option : --

**Q.88** Which modulation technique is commonly used in power modulators to achieve variable power output?

- Ans
- ☐ 1. Delta modulation
  - ☒ 2. Pulse-width modulation
  - ☐ 3. Frequency modulation
  - ☐ 4. Amplitude modulation

Question ID : 630680381594  
Option 1 ID : 6306801487310  
Option 2 ID : 6306801487309  
Option 3 ID : 6306801487307  
Option 4 ID : 6306801487308  
Status : Answered  
Chosen Option : 2

**Q.89** Consider the following statements regarding Brushless DC motors and select the correct option.  
(i) In Brushless motors, there is a provision of permanent magnets that will rotate around a moving armature.  
(ii) The brush-commutator assembly of a conventional DC motor is replaced by an electronic controller in the Brushless DC motors.  
(iii) For same kW rating, the Brushless DC motor is less expensive than the Brushed conventional DC motor.

Ans ☒ 1. (i) and (ii) are false

☒ 2. Only (ii) is false

☒ 3. (ii) and (iii) are false

☒ 4. (i) and (iii) are false

Question ID : 630680503375

Option 1 ID : 6306801967082

Option 2 ID : 6306801967084

Option 3 ID : 6306801967083

Option 4 ID : 6306801967081

Status : Answered

Chosen Option : 2

**Q.90** In internal wiring estimation, if the connected load is 2 kW and the supply voltage is 240 V, then the maximum load current will be \_\_\_\_\_.

Ans ☒ 1. 80 A

☒ 2. 4.33 A

☒ 3. 1.14 A

☒ 4. 8.33 A

Question ID : 630680333220

Option 1 ID : 6306801296154

Option 2 ID : 6306801296155

Option 3 ID : 6306801296156

Option 4 ID : 6306801296153

Status : Answered

Chosen Option : 4

**Q.91** Which of the following is true for the performance analysis of medium transmission line using end condenser method?

Ans ☒ 1. The voltage across the load is equal to the voltage across the lumped line capacitance.

☒ 2. The voltage across the load is higher than the voltage across the each different distributed line capacitance.

☒ 3. The voltage across the load is lower than the voltage across the each different distributed line capacitance.

☒ 4. The voltage across the load is higher than the voltage across the lumped line capacitance.

Question ID : 630680503837

Option 1 ID : 6306801968912

Option 2 ID : 6306801968909

Option 3 ID : 6306801968910

Option 4 ID : 6306801968911

Status : Not Answered

Chosen Option : --



**Q.92 Which of the following factors will NOT affect the selection of a resistor?**

- Ans ☐ 1. Thermal resistivity  
☒ 2. Frequency range  
☐ 3. Power rating (in watts)  
☐ 4. Tolerance

Question ID : 630680504238  
Option 1 ID : 6306801970514  
Option 2 ID : 6306801970513  
Option 3 ID : 6306801970516  
Option 4 ID : 6306801970515  
Status : Answered  
Chosen Option : 2

**Q.93 Transmission efficiency of a transmission line increases with the \_\_\_\_\_.**

- Ans ☐ 1. decrease in power factor and voltage  
☐ 2. increase in voltage only power factor remains constant  
☐ 3. increase in power factor but the decrease in voltage  
☒ 4. increase in power factor and voltage

Question ID : 630680503826  
Option 1 ID : 6306801968865  
Option 2 ID : 6306801968868  
Option 3 ID : 6306801968867  
Option 4 ID : 6306801968866  
Status : Answered  
Chosen Option : 2

**Q.94 Which of the following statements are INCORRECT about auxiliary motor starting in synchronous motors?**

- A) The function of the auxiliary motor is to run the synchronous motor at a speed less than its synchronous speed.  
B) The rating of the auxiliary motor is much lower than that of the synchronous motor.  
C) This method is used only for loaded synchronous motors.  
D) Auxiliary motor starting is not a commonly used starting method in modern days.

- Ans ☐ 1. A and C  
☐ 2. A and D  
☒ 3. A, C and D  
☐ 4. B and D

Question ID : 630680339335  
Option 1 ID : 6306801319909  
Option 2 ID : 6306801319911  
Option 3 ID : 6306801319910  
Option 4 ID : 6306801319912  
Status : Not Answered  
Chosen Option : --

**Q.95** In the circuit shown here, the 20 V source has an internal resistance of  $1\ \Omega$ . While the current source is ideal, the value of current  $I$  is \_\_\_\_\_.

- Ans
- ☒ 1. 10 A
  - ☒ 2. 1 A
  - ☒ 3. -1 A
  - ☒ 4. 5 A

Question ID : 630680209177  
Option 1 ID : 630680810926  
Option 2 ID : 630680810924  
Option 3 ID : 630680810923  
Option 4 ID : 630680810925  
Status : Answered  
Chosen Option : 3

**Q.96** In a parallel resonant circuit, the input impedance of the circuit is \_\_\_\_\_.

- Ans
- ☒ 1. maximum
  - ☒ 2. zero
  - ☒ 3. infinite
  - ☒ 4. minimum

Question ID : 630680504470  
Option 1 ID : 6306801971441  
Option 2 ID : 6306801971443  
Option 3 ID : 6306801971444  
Option 4 ID : 6306801971442  
Status : Answered  
Chosen Option : 4

**Q.97** Two inductively coupled coils have self-inductance  $L_1=20\text{H}$  and  $L_2=320\text{H}$ . Find the maximum possible mutual inductance between the coils.

- Ans
- ☒ 1. 80 H
  - ☒ 2. 40 H
  - ☒ 3. 100 H
  - ☒ 4. 10 H

Question ID : 630680504195  
Option 1 ID : 6306801970343  
Option 2 ID : 6306801970341  
Option 3 ID : 6306801970342  
Option 4 ID : 6306801970344  
Status : Not Answered  
Chosen Option : --

**Q.98** In a brake test, the DC motor took 20 A from a 200 V supply mains. The brake pulley of radius 10 cm had an effective load of 20 kg and the speed was 10 rps. The value of BHP (in metric) is \_\_\_\_\_.

- Ans
- ☒ 1.  $1.3\pi$
  - ☒ 2.  $8.8\pi$
  - ☒ 3.  $0.5\pi$
  - ☒ 4.  $0.2\pi$

Question ID : 630680503373  
Option 1 ID : 6306801967075  
Option 2 ID : 6306801967076  
Option 3 ID : 6306801967074  
Option 4 ID : 6306801967073  
Status : Not Answered  
Chosen Option : --

**Q.99** Which of the following is NOT correct with reference to delta-star type distribution transformers application?

- Ans
- ☒ 1. In delta-star type transformer, secondary voltage is in phase with the primary voltages.
  - ☒ 2. In delta-star type transformer, no distortion is produced by third harmonic components.
  - ☒ 3. In delta-star type transformer, large, unbalanced loads can be handled without any difficulty.
  - ☒ 4. In delta-star type transformer, fault protection is one of the primary advantages.

Question ID : 630680380949  
Option 1 ID : 6306801484783  
Option 2 ID : 6306801484786  
Option 3 ID : 6306801484785  
Option 4 ID : 6306801484784  
Status : Not Answered  
Chosen Option : --

**Q.100** In magnetism, the measure of the ease with which magnetic flux can pass through a material is called \_\_\_\_\_.

- Ans
- ☒ 1. permeance
  - ☒ 2. reluctance
  - ☒ 3. MMF
  - ☒ 4. flux density

Question ID : 630680504228  
Option 1 ID : 6306801970475  
Option 2 ID : 6306801970474  
Option 3 ID : 6306801970473  
Option 4 ID : 6306801970476  
Status : Answered  
Chosen Option : 3