

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

Roll Number	
Candidate Name	
Venue Name	
Exam Date	05/06/2024
Exam Time	1:00 PM - 3:00 PM
Subject	Junior Engineer 2024 Mechanical Paper I

Section : General Intelligence and Reasoning

Q.1 Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



- Ans
- 1. F 4 ¥ X R
  - 2. R X ¥ 4 F
  - 3. R X ¥ 4 F
  - 4. F X 4 R

Question ID : 630680456654  
 Option 1 ID : 6306801783579  
 Option 2 ID : 6306801783580  
 Option 3 ID : 6306801783581  
 Option 4 ID : 6306801783582  
 Status : Answered  
 Chosen Option : 3

Q.2 15 is related to 230 following a certain logic. Following the same logic, 4 is related to 65. To which of the following is 12 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. 187
  - 2. 186
  - 3. 185
  - 4. 180

Question ID : 630680451715  
 Option 1 ID : 6306801763946  
 Option 2 ID : 6306801763947  
 Option 3 ID : 6306801763948  
 Option 4 ID : 6306801763949  
 Status : Answered  
 Chosen Option : 3

Q.3 What should come in place of '?' in the given series?  
394, 465, 536, 607, 678, ?

- Ans  1. 749  
 2. 756  
 3. 736  
 4. 768

Question ID : 630680378803  
Option 1 ID : 6306801476261  
Option 2 ID : 6306801476259  
Option 3 ID : 6306801476260  
Option 4 ID : 6306801476262  
Status : Answered  
Chosen Option : 1

Q.4 A, B, C, D, E and F are sitting around a circular table facing the centre (not necessarily in the same order). B is sitting to the immediate right of F and immediate left of C. C is sitting to the immediate left of E. A is sitting to the immediate right of E and to the immediate left of D. Who is sitting to the immediate left of F?

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

Question ID : 630680377010  
Option 1 ID : 6306801469105  
Option 2 ID : 6306801469103  
Option 3 ID : 6306801469104  
Option 4 ID : 6306801469106  
Status : Answered  
Chosen Option : 4

Q.5 Select the correct option that indicates the arrangement of the following planets according to their size.

1. Mars
2. Jupiter
3. Venus
4. Earth
5. Mercury

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

Question ID : 630680565832  
Option 1 ID : 6306802212276  
Option 2 ID : 6306802212278  
Option 3 ID : 6306802212277  
Option 4 ID : 6306802212279  
Status : Answered  
Chosen Option : 4

**Q.6** In a certain code language, 'FLEW' is coded as '8462' and 'LORD' is coded as '9736'.  
What is the code for 'L' in the given code language?

- Ans  1. 9  
 2. 6  
 3. 4  
 4. 7

Question ID : 630680377195  
Option 1 ID : 6306801469844  
Option 2 ID : 6306801469845  
Option 3 ID : 6306801469843  
Option 4 ID : 6306801469846  
Status : Answered  
Chosen Option : 2

**Q.7** Six friends Abby, Bunny, Chan, Dolly, Emma and Fanny have different weights. Dolly's weight is an odd number. Dolly is heavier than Emma but not the heaviest. Chan is heavier than Fanny but lighter than Dolly. Chan is not heavier than Emma but is heavier than Fanny and Abby. Abby's weight is not an odd number. The lightest weight is 45 kilograms and the heaviest weight is 80 kilograms.  
Who is the heaviest person in the group?

- Ans  1. Abby  
 2. Bunny  
 3. Chan  
 4. Emma

Question ID : 630680521125  
Option 1 ID : 6306802036925  
Option 2 ID : 6306802036927  
Option 3 ID : 6306802036926  
Option 4 ID : 6306802036928  
Status : Answered  
Chosen Option : 2

**Q.8** Select the option figure that can replace the question mark (?) in the figure given below to complete the pattern.

**Ans**

✓ 1.

✗ 2.

✗ 3.

✗ 4.

Question ID : 630680525486  
Option 1 ID : 6306802054029  
Option 2 ID : 6306802054028  
Option 3 ID : 6306802054031  
Option 4 ID : 6306802054030  
Status : Answered  
Chosen Option : 1

**Q.9** LQNR is related to PURV in a certain way based on the English alphabetical order. In the same way, OTQU is related to SXUY. To which of the following is GLIM related, following the same logic?

**Ans** ✗ 1. PKMQ

✗ 2. QPMK

✓ 3. KPMQ

✗ 4. PQMK

Question ID : 630680379505  
Option 1 ID : 6306801479064  
Option 2 ID : 6306801479066  
Option 3 ID : 6306801479065  
Option 4 ID : 6306801479063  
Status : Answered  
Chosen Option : 3

**Q.10** Madan starts from point A and drives 4 km towards the South. He then takes a left turn and drives 5 km. he then takes a right turn and drives 2 km. He then takes another right turn and drives 3 km. He takes a final right turn and drives 6 km to reach point B. How far (shortest distance) and towards which direction should he drive to reach Point A again? (All turns are 90 degrees turns only unless specified)

- Ans
- 1. 3 km West
  - 2. 2 km West
  - 3. 3 km East
  - 4. 2 km East

Question ID : 630680376853  
Option 1 ID : 6306801468477  
Option 2 ID : 6306801468475  
Option 3 ID : 6306801468478  
Option 4 ID : 6306801468476  
Status : Answered  
Chosen Option : 2

**Q.11** What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
RQO, LKI, FEC, ZYW, TSQ, ?

- Ans
- 1. NML
  - 2. MNL
  - 3. NMK
  - 4. MNK

Question ID : 630680395304  
Option 1 ID : 6306801541420  
Option 2 ID : 6306801541422  
Option 3 ID : 6306801541423  
Option 4 ID : 6306801541421  
Status : Answered  
Chosen Option : 3

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

1. Word
2. Paragraph
3. Sentence
4. Letter
5. Phrase

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

Question ID : 630680404456  
Option 1 ID : 6306801577324  
Option 2 ID : 6306801577325  
Option 3 ID : 6306801577326  
Option 4 ID : 6306801577327  
Status : Answered  
Chosen Option : 4

Q.13 142 is related to 92 following a certain logic. Following the same logic, 255 is related to 205. To which of the following is 457 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. 407

2. 417

3. 427

4. 437

Question ID : 630680396913

Option 1 ID : 6306801547720

Option 2 ID : 6306801547721

Option 3 ID : 6306801547722

Option 4 ID : 6306801547723

Status : Answered

Chosen Option : 1

Q.14 OB 8 is related to UE 3 in a certain way. In the same way, TO 11 is related to ZR 6. To which of the following is IB 8 related, following the same logic?

Ans  1. OE 3

2. PF -3

3. OF 3

4. PE 3

Question ID : 630680386527

Option 1 ID : 6306801506818

Option 2 ID : 6306801506821

Option 3 ID : 6306801506819

Option 4 ID : 6306801506820

Status : Answered

Chosen Option : 3

Q.15 What will come in place of the question mark (?) in the following equation if '+' and '÷' are interchanged and '×' and '-' are interchanged?  
 $21 \div 15 \times 52 + 13 - 7 = ?$

Ans  1. 10

2. 7

3. 8

4. 12

Question ID : 630680376976

Option 1 ID : 6306801468970

Option 2 ID : 6306801468967

Option 3 ID : 6306801468969

Option 4 ID : 6306801468968

Status : Answered

Chosen Option : 3

Q.16 STAR is related to TWCV in a certain way based on the English alphabetical order. In the same way, PARK is related to QDTO. To which of the following is MILK related, following the same logic?

- Ans
- 1. NLMO
  - 2. MLNO
  - 3. NLNO
  - 4. MLMO

Question ID : 630680376880  
Option 1 ID : 6306801468586  
Option 2 ID : 6306801468584  
Option 3 ID : 6306801468585  
Option 4 ID : 6306801468583  
Status : Answered  
Chosen Option : 3

Q.17 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 : 630680524860  
Option 1 ID : 6306802051539  
Option 2 ID : 6306802051540  
Option 3 ID : 6306802051541  
Option 4 ID : 6306802051542  
Status : Answered  
Chosen Option : 2

Q.18 IMPU is related to LPSX in a certain way based on the English alphabetical order. In the same way, BEKN is related to EHNQ. To which of the following is CLQS related, following the same logic?

- Ans
- 1. IJSH
  - 2. FOTV
  - 3. PLNF
  - 4. ACLK

Question ID : 630680377696  
Option 1 ID : 6306801471843  
Option 2 ID : 6306801471844  
Option 3 ID : 6306801471845  
Option 4 ID : 6306801471846  
Status : Answered  
Chosen Option : 2

**Q.19** 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 /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.)

(9, 576, 8)

(7, 252, 6)

Ans  1. (4, 82, 5)

2. (8, 650, 10)

3. (15, 210, 7)

4. (10, 40, 2)

Question ID : 630680390232

Option 1 ID : 6306801521373

Option 2 ID : 6306801521372

Option 3 ID : 6306801521371

Option 4 ID : 6306801521370

Status : Answered

Chosen Option : 1

**Q.20** What should come in place of the question mark (?) in the given series based on the English alphabetical order?

INJ, LQM, OTP, RWS, ?

Ans  1. UVZ

2. VUZ

3. VZU

4. UZV

Question ID : 630680376923

Option 1 ID : 6306801468756

Option 2 ID : 6306801468757

Option 3 ID : 6306801468758

Option 4 ID : 6306801468755

Status : Answered

Chosen Option : 4

Q.21 Select the option in which the given figure is embedded (rotation is NOT allowed).

Ans

1.

2.

3.

4.

Question ID : 630680524478  
Option 1 ID : 6306802050012  
Option 2 ID : 6306802050011  
Option 3 ID : 6306802050014  
Option 4 ID : 6306802050013  
Status : Answered  
Chosen Option : 3

Q.22 What should come in place of the question mark (?) in the given series based on the English alphabetical order  
KMO, HJL, EGI, BDF, ?

- Ans
- 1. ZBC
  - 2. ZAC
  - 3. YBC
  - 4. YAC

Question ID : 630680376901  
Option 1 ID : 6306801468667  
Option 2 ID : 6306801468670  
Option 3 ID : 6306801468668  
Option 4 ID : 6306801468669  
Status : Answered  
Chosen Option : 4

Q.23 Jennifer starts from Point D and drives 3 km towards the north. She then takes a left turn and drives 10 km. She then takes another left turn and drives 6 km. She takes one more left turn and drives 5 km. She then takes a right turn and drives 3 km. She takes a final left turn and drives 5 km to reach point E. How far (shortest distance) and towards which direction should she drive in order to reach Point D again? (All turns are 90 degree turns only, unless specified)

- Ans
- 1. 5 km North
  - 2. 3 km North
  - 3. 6 km North
  - 4. 5 km East

Question ID : 630680378906  
Option 1 ID : 6306801476672  
Option 2 ID : 6306801476671  
Option 3 ID : 6306801476674  
Option 4 ID : 6306801476673  
Status : Answered  
Chosen Option : 3

Q.24 LQKN is related to PUOR in a certain way based on the English alphabetical order. In the same way, INHK is related to MRLO. To which of the following is QVPS related, following the same logic?

- Ans
- 1. UZWT
  - 2. WZUT
  - 3. UZTW
  - 4. WZTU

Question ID : 630680376720  
Option 1 ID : 6306801467945  
Option 2 ID : 6306801467944  
Option 3 ID : 6306801467946  
Option 4 ID : 6306801467943  
Status : Answered  
Chosen Option : 3

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

- Ans**
- 1. Father's father
  - 2. Sister's daughter
  - 3. Mother's mother
  - 4. Brother's daughter

Question ID : 630680377669  
Option 1 ID : 6306801471736  
Option 2 ID : 6306801471738  
Option 3 ID : 6306801471735  
Option 4 ID : 6306801471737  
Status : Answered  
Chosen Option : 3

**Q.26** If 'A' stands for '+', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '-', what will come in place of the question mark '?' in the following equation?

10 B 2 D 15 A 3 C 7 = ?

- Ans**
- 1. 22
  - 2. 20
  - 3. 21
  - 4. 24

Question ID : 630680502794  
Option 1 ID : 6306801964757  
Option 2 ID : 6306801964758  
Option 3 ID : 6306801964759  
Option 4 ID : 6306801964760  
Status : Answered  
Chosen Option : 1

**Q.27** 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 frames are rocks. All rocks are clips. All clips are towels.

Conclusion (I): All frames are towels.

Conclusion (II): At least some clips are frames.

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

Question ID : 630680376527  
Option 1 ID : 6306801467175  
Option 2 ID : 6306801467176  
Option 3 ID : 6306801467178  
Option 4 ID : 6306801467177  
Status : Answered  
Chosen Option : 3

**Q.28** What should come in place of the question mark (?) in the given series?  
2, 5, 13, 28, 52, 87, ?

- Ans
- 1. 98
  - 2. 135
  - 3. 107
  - 4. 130

Question ID : 630680378757  
Option 1 ID : 6306801476075  
Option 2 ID : 6306801476078  
Option 3 ID : 6306801476076  
Option 4 ID : 6306801476077  
Status : Answered  
Chosen Option : 2

**Q.29** The position(s) of how many letters will remain unchanged if each of the letters in the word FOREIGN is arranged in the English alphabetical order?

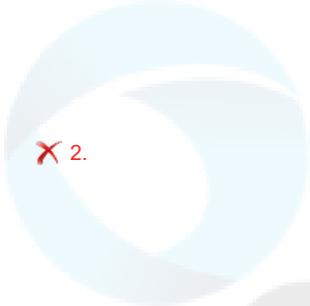
- Ans
- 1. None
  - 2. One
  - 3. Two
  - 4. Three

Question ID : 630680404425  
Option 1 ID : 6306801577200  
Option 2 ID : 6306801577201  
Option 3 ID : 6306801577202  
Option 4 ID : 6306801577203  
Status : Answered  
Chosen Option : 1

Q.30 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 : 630680422243

Option 1 ID : 6306801647408

Option 2 ID : 6306801647409

Option 3 ID : 6306801647410

Option 4 ID : 6306801647411

Status : Answered

Chosen Option : 3

Q.31 Select the figure from the options that can replace the question mark (?) and complete the given pattern.

Ans

1.

✗ 2.

✗ 3.

✗ 4.

Question ID : 630680524809  
Option 1 ID : 6306802051337  
Option 2 ID : 6306802051335  
Option 3 ID : 6306802051338  
Option 4 ID : 6306802051336  
Status : Answered  
Chosen Option : 1

**Q.32** In a certain code language,  
A + B means 'A is the sister of B'  
A # B means 'A is the brother of B'  
A × B means 'A is the wife of B'  
A @ B means 'A is the father of B'  
Based on the above, how is E related to M if 'E # F × H @ G + M'?

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

Question ID : 630680376959  
Option 1 ID : 6306801468901  
Option 2 ID : 6306801468899  
Option 3 ID : 6306801468900  
Option 4 ID : 6306801468902  
Status : Answered  
Chosen Option : 3

**Q.33** In a certain code language, 'SANG' is coded as '3618', and 'RANG' is coded as '6438'.  
What is the code for 'S' in that language?

- Ans**
- 1. 8
  - 2. 6
  - 3. 1
  - 4. 3

Question ID : 630680376410  
Option 1 ID : 6306801466710  
Option 2 ID : 6306801466708  
Option 3 ID : 6306801466709  
Option 4 ID : 6306801466707  
Status : Answered  
Chosen Option : 3

**Q.34** A, B, C, D, E, and F are sitting at a circular table facing the centre (not necessarily in the same order). A is to the immediate left of B, E is third to the right of B, D is to the immediate right of C. F is third to the right of C.  
Who are the immediate neighbours of E?

- a) A and B
- b) B and D
- c) D and F
- d) F and B

- Ans**
- 1. (d)
  - 2. (b)
  - 3. (c)
  - 4. (a)

Question ID : 630680376401  
Option 1 ID : 6306801466674  
Option 2 ID : 6306801466672  
Option 3 ID : 6306801466673  
Option 4 ID : 6306801466671  
Status : Answered  
Chosen Option : 3

**Q.35** 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.)

**Mycology : Fungi**

- Ans**  1. Seismology : Earthquakes  
 2. Ornithology : Eggs  
 3. Paedology : Planets  
 4. Entomology : Birds

Question ID : 630680556091  
Option 1 ID : 6306802173740  
Option 2 ID : 6306802173742  
Option 3 ID : 6306802173743  
Option 4 ID : 6306802173741  
Status : Answered  
Chosen Option : 1

**Q.36** What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
LXC, OZD, RBE, UDF, ?

- Ans**  1. YGH  
 2. ZDI  
 3. XHJ  
 4. XFG

Question ID : 630680386936  
Option 1 ID : 6306801508455  
Option 2 ID : 6306801508456  
Option 3 ID : 6306801508457  
Option 4 ID : 6306801508454  
Status : Answered  
Chosen Option : 4

**Q.37** In a certain code language, 'apple is healthy' is written as 'di jl ew' and 'apple is red' is written as 'di ko ew'. How is 'red' written in the given language?

- Ans**  1. di  
 2. jl  
 3. ew  
 4. ko

Question ID : 630680388165  
Option 1 ID : 6306801513222  
Option 2 ID : 6306801513225  
Option 3 ID : 6306801513224  
Option 4 ID : 6306801513223  
Status : Answered  
Chosen Option : 4

Q.38

- Ans
- 1. 13
  - 2. 14
  - 3. 11
  - 4. 12

Question ID : 630680524413  
Option 1 ID : 6306802049753  
Option 2 ID : 6306802049754  
Option 3 ID : 6306802049751  
Option 4 ID : 6306802049752  
Status : Answered  
Chosen Option : 1

Q.39 What will come in the place of the question mark (?) in the following equation, if '+' and 'x' are interchanged and '-' and '÷' are interchanged?  
 $12 + 4 - 24 \times 11 \div 13 = ?$

- Ans
- 1. -20
  - 2. 10
  - 3. 0
  - 4. -10

Question ID : 630680377614  
Option 1 ID : 6306801471515  
Option 2 ID : 6306801471518  
Option 3 ID : 6306801471517  
Option 4 ID : 6306801471516  
Status : Answered  
Chosen Option : 3

Q.40 What should come in place of the question mark (?) in the given series.  
6, 3, 12, 6, 24, ?, 48, 24, 96

- Ans
- 1. 48
  - 2. 12
  - 3. 6
  - 4. 24

Question ID : 630680379055  
Option 1 ID : 6306801477270  
Option 2 ID : 6306801477269  
Option 3 ID : 6306801477267  
Option 4 ID : 6306801477268  
Status : Answered  
Chosen Option : 2

Q.41 In a certain code language, 'HAIR' is coded as '7935' and 'AGED' is coded as '4892'.  
What is the code for 'A' in the given language?

- Ans
- 1. 3
  - 2. 4
  - 3. 5
  - 4. 9

Question ID : 630680376549  
Option 1 ID : 6306801467263  
Option 2 ID : 6306801467266  
Option 3 ID : 6306801467264  
Option 4 ID : 6306801467265  
Status : Answered  
Chosen Option : 4

Q.42 What will come in the place of the question mark (?) in the following equation, if '+' and  
'÷' are interchanged and 'x' and '-' are interchanged?  
 $10 + 2 - 10 \div 5 \times 10 = ?$

- Ans
- 1. 40
  - 2. 45
  - 3. 35
  - 4. 32

Question ID : 630680377708  
Option 1 ID : 6306801471892  
Option 2 ID : 6306801471893  
Option 3 ID : 6306801471894  
Option 4 ID : 6306801471891  
Status : Answered  
Chosen Option : 2

Q.43 The position(s) of how many letters will remain unchanged if each of the letters in the  
word STAMPED is arranged in the English alphabetical order?

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

Question ID : 630680396640  
Option 1 ID : 6306801546652  
Option 2 ID : 6306801546653  
Option 3 ID : 6306801546654  
Option 4 ID : 6306801546655  
Status : Answered  
Chosen Option : 1

**Q.44** Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion(s) logically follow(s) from the statements.

Statements: Some cars are grass. All trucks are cars.

Conclusion 1: Some trucks are not cars.

Conclusion 2: Some trucks are grass.

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

Question ID : 630680381042  
Option 1 ID : 6306801485145  
Option 2 ID : 6306801485143  
Option 3 ID : 6306801485144  
Option 4 ID : 6306801485146  
Status : Answered  
Chosen Option : 1

**Q.45** Select the option in which the numbers share the same relationship as that shared by the given number triads.

120-100-60

240-220-180

(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. 220-210-200  
 2. 150-160-140  
 3. 90-80-75  
 4. 200-180-140

Question ID : 630680387173  
Option 1 ID : 6306801509387  
Option 2 ID : 6306801509388  
Option 3 ID : 6306801509389  
Option 4 ID : 6306801509386  
Status : Answered  
Chosen Option : 4

**Q.46** 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.)

(45, 23, 73)

(19, 27, 51)

- Ans  1. (31, 17, 48)  
 2. (22, 29, 52)  
 3. (16, 14, 35)  
 4. (12, 19, 30)

Question ID : 630680376817  
Option 1 ID : 6306801468333  
Option 2 ID : 6306801468332  
Option 3 ID : 6306801468334  
Option 4 ID : 6306801468331  
Status : Answered  
Chosen Option : 3

Q.47 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.)

Altimeter : Altitudes

- Ans
- 1. Hygrometer : Humidity
  - 2. Protractor : Light
  - 3. Fathometer : Pressure
  - 4. Taseometer : Wind

Question ID : 630680556096  
Option 1 ID : 6306802173761  
Option 2 ID : 6306802173762  
Option 3 ID : 6306802173760  
Option 4 ID : 6306802173763  
Status : Answered  
Chosen Option : 1

Q.48 What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
DMY, BKW, ZIU, XGS, ?

- Ans
- 1. UDP
  - 2. UFR
  - 3. VEQ
  - 4. WCR

Question ID : 630680382493  
Option 1 ID : 6306801490889  
Option 2 ID : 6306801490888  
Option 3 ID : 6306801490890  
Option 4 ID : 6306801490887  
Status : Answered  
Chosen Option : 3

Q.49

- Ans
- 1. MVT
  - 2. MUT
  - 3. MXT
  - 4. MNT

Question ID : 630680378698  
Option 1 ID : 6306801475839  
Option 2 ID : 6306801475842  
Option 3 ID : 6306801475841  
Option 4 ID : 6306801475840  
Status : Answered  
Chosen Option : 2

**Q.50** In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. 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.)

(6, 34)

(8, 46)

Ans  1. (7, 38)

2. (4, 24)

3. (12, 76)

4. (10, 58)

Question ID : 630680377730

Option 1 ID : 6306801471981

Option 2 ID : 6306801471982

Option 3 ID : 6306801471980

Option 4 ID : 6306801471979

Status : Answered

Chosen Option : 4

Section : General Awareness

**Q.1** To cherish and follow the noble ideals that inspired our national struggle for freedom is a \_\_\_\_\_ fundamental duty in the list of fundamental duties enshrined in our Indian Constitution.

Ans  1. first

2. second

3. third

4. fourth

Question ID : 630680493470

Option 1 ID : 6306801927619

Option 2 ID : 6306801927620

Option 3 ID : 6306801927621

Option 4 ID : 6306801927622

Status : Answered

Chosen Option : 3

**Q.2** Who was the leader of the temple entry movement in 1930 at Kalaram temple, Nashik?

Ans  1. Swami Achhutanand

2. NG Ranga

3. Mahatma Gandhi

4. Dr. BR Ambedkar

Question ID : 630680572381

Option 1 ID : 6306802238364

Option 2 ID : 6306802238365

Option 3 ID : 6306802238366

Option 4 ID : 6306802238367

Status : Answered

Chosen Option : 4

**Q.3 What is the primary focus of the ASPIRE scheme of the Ministry of Micro, Small & Medium Enterprises, Government of India?**

- Ans**
- 1. Urban development
  - 2. Technology innovation
  - 3. Environmental conservation
  - 4. Establishment of livelihoods business incubation centres

Question ID : 630680488098  
Option 1 ID : 6306801906451  
Option 2 ID : 6306801906452  
Option 3 ID : 6306801906453  
Option 4 ID : 6306801906454  
Status : Answered  
Chosen Option : 4

**Q.4 Who said "a cherry that will drop into our mouth one day" about the kingdom of Awadh?**

- Ans**
- 1. Lord Lytton
  - 2. Lord Curzon
  - 3. Lord Mountbatten
  - 4. Lord Dalhousie

Question ID : 630680511542  
Option 1 ID : 6306801999292  
Option 2 ID : 6306801999290  
Option 3 ID : 6306801999293  
Option 4 ID : 6306801999291  
Status : Answered  
Chosen Option : 4

**Q.5 Who among the following musicians received the Padma Bhushan Award 2022 for his contributions in the field of art?**

- Ans**
- 1. Rashid Khan
  - 2. Madan Singh Chauhan
  - 3. Manilal Nag
  - 4. Chhannulal Mishra

Question ID : 630680701418  
Option 1 ID : 6306802747612  
Option 2 ID : 6306802747610  
Option 3 ID : 6306802747609  
Option 4 ID : 6306802747611  
Status : Answered  
Chosen Option : 1

Q.6 Match the following states with their percentage urban population in India, as per Census 2011.

- i) Kerala a) 10.04%  
ii) Madhya Pradesh b) 47.72%  
iii) Tamil Nadu c) 27.63%  
iv) Himachal Pradesh d) 48.45%

- Ans  1. i) d, ii) c, iii) b, iv) a  
 2. i) a, ii) d, iii) c, iv) b  
 3. i) a, ii) b, iii) c, iv) d  
 4. i) b, ii) c, iii) d, iv) a

Question ID : 630680488637  
Option 1 ID : 6306801908567  
Option 2 ID : 6306801908568  
Option 3 ID : 6306801908569  
Option 4 ID : 6306801908570  
Status : Answered  
Chosen Option : 1

Q.7 The valency of Ca is  $2^+$ . The valency of O is  $2^-$ . What is the simplified chemical formula of Calcium oxide?

- Ans  1.  $\text{Ca}_2\text{O}_2$   
 2.  $\text{CaO}$   
 3.  $\text{CaO}_2$   
 4.  $\text{Ca}_2\text{O}$

Question ID : 630680401862  
Option 1 ID : 6306801567218  
Option 2 ID : 6306801567219  
Option 3 ID : 6306801567220  
Option 4 ID : 6306801567221  
Status : Answered  
Chosen Option : 2

Q.8 Arachnids belong to which subphylum of the phylum Arthropoda?

- Ans  1. Crustacea  
 2. Hexapoda  
 3. Chelicerata  
 4. Myriapoda

Question ID : 630680540420  
Option 1 ID : 6306802112768  
Option 2 ID : 6306802112770  
Option 3 ID : 6306802112767  
Option 4 ID : 6306802112769  
Status : Answered  
Chosen Option : 4

Q.9 Which of the following values is subtracted from the numerical value of temperature expressed in Kelvin to obtain the temperature in degrees Celsius?

- Ans  1. 293  
 2. 273  
 3. 253  
 4. 313

Question ID : 630680403022  
Option 1 ID : 6306801571661  
Option 2 ID : 6306801571660  
Option 3 ID : 6306801571659  
Option 4 ID : 6306801571662  
Status : Answered  
Chosen Option : 2

Q.10 Identify the INCORRECT pair (railway zone and headquarters) from the following.

- Ans  1. North Western Railway Zone – Jaipur  
 2. South Western Railway Zone – Hubli  
 3. Central Railway Zone – Kolkata  
 4. South-East Central Railway Zone – Bilaspur

Question ID : 630680510977  
Option 1 ID : 6306801997039  
Option 2 ID : 6306801997040  
Option 3 ID : 6306801997038  
Option 4 ID : 6306801997041  
Status : Answered  
Chosen Option : 3

Q.11 Which compound is used to neutralise fatty acids and convert them into salts in a process called saponification?

- Ans  1. Sodium hydroxide  
 2. Sodium acetate  
 3. Sodium chlorate  
 4. Sodium fluoride

Question ID : 630680403012  
Option 1 ID : 6306801571620  
Option 2 ID : 6306801571619  
Option 3 ID : 6306801571622  
Option 4 ID : 6306801571621  
Status : Answered  
Chosen Option : 1

Q.12 Sange Meel Se Mulaqat is a documentary on the life of \_\_\_\_\_, directed by Gautam Ghosh.

- Ans  1. Pandit Ram Narayan  
 2. Pandit Bismillah Khan  
 3. Pandit Biswajit Roy Chowdhury  
 4. Pandit Bhimsen Joshi

Question ID : 630680701402  
Option 1 ID : 6306802747546  
Option 2 ID : 6306802747548  
Option 3 ID : 6306802747547  
Option 4 ID : 6306802747545  
Status : Answered  
Chosen Option : 1

Q.13 Which of the following sentences is/are correct?

- i. According to the Census of India 2011, the total population of India is 141 crores.
- ii. Between 1911 and 1921, there was a negative rate of growth of India's population.
- iii. Between 1901 and 1951, the average annual growth of India's population did not exceed 1.33%.

- Ans
- 1. Only i and ii
  - 2. Only i and iii
  - 3. Only i
  - 4. Only ii and iii

Question ID : 630680488238  
Option 1 ID : 6306801907011  
Option 2 ID : 6306801907012  
Option 3 ID : 6306801907013  
Option 4 ID : 6306801907014  
Status : Answered  
Chosen Option : 4

Q.14 How do estuaries serve as critical habitats for various species?

- Ans
- 1. Estuaries have no ecological significance.
  - 2. Estuaries provide breeding grounds and nurseries for marine organisms.
  - 3. Estuaries contribute to desertification.
  - 4. Estuaries are only important for recreational activities.

Question ID : 630680615281  
Option 1 ID : 6306802407798  
Option 2 ID : 6306802407799  
Option 3 ID : 6306802407800  
Option 4 ID : 6306802407801  
Status : Answered  
Chosen Option : 2

Q.15 Who was elected as the 16<sup>th</sup> Speaker of the Himachal Pradesh Legislative Assembly in January 2023?

- Ans
- 1. Kuldeep Singh Pathania
  - 2. Anurag Thakur
  - 3. Jai Ram Thakur
  - 4. Suresh Bhardwaj

Question ID : 630680804277  
Option 1 ID : 6306803150840  
Option 2 ID : 6306803150841  
Option 3 ID : 6306803150839  
Option 4 ID : 6306803150842  
Status : Answered  
Chosen Option : 1

Q.16 The particles that form the main part of the nucleus of an atom are together known as:

- Ans
- 1. ions
  - 2. electrons
  - 3. nucleons
  - 4. isotopes

Question ID : 630680401910  
Option 1 ID : 6306801567387  
Option 2 ID : 6306801567386  
Option 3 ID : 6306801567389  
Option 4 ID : 6306801567388  
Status : Answered  
Chosen Option : 3

Q.17 The office of the Registrar General and Census Commissioner works under which Ministry of Government of India?

- Ans
- 1. Ministry of Finance
  - 2. Ministry of Personnel, Public Grievances and Pensions
  - 3. Ministry of Home Affairs
  - 4. Ministry of Social Justice and Empowerment

Question ID : 630680477183  
Option 1 ID : 6306801863901  
Option 2 ID : 6306801863902  
Option 3 ID : 6306801863903  
Option 4 ID : 6306801863904  
Status : Answered  
Chosen Option : 1

Q.18 When was Swami Vivekananda born?

- Ans
- 1. 12 January 1866
  - 2. 12 January 1859
  - 3. 12 January 1863
  - 4. 12 January 1853

Question ID : 630680511596  
Option 1 ID : 6306801999509  
Option 2 ID : 6306801999507  
Option 3 ID : 6306801999508  
Option 4 ID : 6306801999506  
Status : Answered  
Chosen Option : 1

Q.19 Which are the two major branches of the southwest monsoon in India?

- Ans
- 1. The Arabian Sea branch and the Bay of Bengal branch
  - 2. The Arabian Sea branch and the Tibetan plateau branch
  - 3. The Himalayan Mountain branch and the Gulf of Mannar branch
  - 4. The Tibetan plateau branch and the Bay of Bengal branch

Question ID : 630680510958  
Option 1 ID : 6306801996962  
Option 2 ID : 6306801996963  
Option 3 ID : 6306801996965  
Option 4 ID : 6306801996964  
Status : Answered  
Chosen Option : 1

Q.20 What is the SI unit of force?

- Ans
- 1. Watt
  - 2. Joule
  - 3. Volt
  - 4. Newton

Question ID : 630680407778  
Option 1 ID : 6306801590051  
Option 2 ID : 6306801590050  
Option 3 ID : 6306801590052  
Option 4 ID : 6306801590053  
Status : Answered  
Chosen Option : 4

Q.21 If an earthquake happens at the sea floor and one tectonic plate dips under the another, this will most probably lead to a natural disaster known as:

- Ans
- 1. Typhoon
  - 2. Tornado
  - 3. Tsunami
  - 4. Cyclone

Question ID : 630680546842  
Option 1 ID : 6306802137938  
Option 2 ID : 6306802137937  
Option 3 ID : 6306802137935  
Option 4 ID : 6306802137936  
Status : Answered  
Chosen Option : 3

Q.22 Which of the following committees was responsible for making recommendations that led to the 42<sup>nd</sup> Constitutional Amendment for the declaration of Fundamental Duties?

- Ans
- 1. Swaran Singh Committee
  - 2. Abid Hussain Committee
  - 3. Khusro Committee
  - 4. Raja Chelliah Committee

Question ID : 630680618079  
Option 1 ID : 6306802418621  
Option 2 ID : 6306802418622  
Option 3 ID : 6306802418623  
Option 4 ID : 6306802418624  
Status : Answered  
Chosen Option : 1

**Q.23** The government of which of the following states launched the 'Nand Baba Milk Mission' scheme in June 2023?

- Ans
- 1. Bihar
  - 2. Madhya Pradesh
  - 3. Himachal Pradesh
  - 4. Uttar Pradesh

Question ID : 630680513786  
Option 1 ID : 6306802007772  
Option 2 ID : 6306802007770  
Option 3 ID : 6306802007771  
Option 4 ID : 6306802007769  
Status : Answered  
Chosen Option : 2

**Q.24** In 1800, which of the following experimental achievements was made by William Nicholson?

- Ans
- 1. Discovery of water electrolysis
  - 2. Discovery of thermionic emission
  - 3. Discovery of electric bulb
  - 4. Discovery of low-cost filters for polarizing light

Question ID : 630680402063  
Option 1 ID : 6306801567951  
Option 2 ID : 6306801567953  
Option 3 ID : 6306801567950  
Option 4 ID : 6306801567952  
Status : Answered  
Chosen Option : 1

**Q.25** Which of the following is a heart-related disease?

- Ans
- 1. Acromegaly
  - 2. Diabetes
  - 3. Goiter
  - 4. Angina

Question ID : 630680544738  
Option 1 ID : 6306802129715  
Option 2 ID : 6306802129714  
Option 3 ID : 6306802129716  
Option 4 ID : 6306802129717  
Status : Answered  
Chosen Option : 1

**Q.26** What is the primary function of the Golgi apparatus?

- Ans
- 1. Lipid production
  - 2. Sorting and packaging of cellular products
  - 3. Cellular respiration
  - 4. Protein synthesis

Question ID : 630680540550  
Option 1 ID : 6306802113276  
Option 2 ID : 6306802113277  
Option 3 ID : 6306802113278  
Option 4 ID : 6306802113275  
Status : Answered  
Chosen Option : 2

**Q.27** Which of the following is the shortcut key to create a new paragraph in MS Word?

- Ans
- 1. Ctrl + N
  - 2. Ctrl + P
  - 3. Enter
  - 4. Shift + Enter

Question ID : 630680571752  
Option 1 ID : 6306802235916  
Option 2 ID : 6306802235917  
Option 3 ID : 6306802235918  
Option 4 ID : 6306802235919  
Status : Answered  
Chosen Option : 3

**Q.28** Which of the following is/are a gymnosperm?

- Ans
- 1. Mosses
  - 2. Fern
  - 3. Rose
  - 4. Cycas

Question ID : 630680542129  
Option 1 ID : 6306802119459  
Option 2 ID : 6306802119460  
Option 3 ID : 6306802119458  
Option 4 ID : 6306802119457  
Status : Answered  
Chosen Option : 2

**Q.29** Which of the following is the correct option for using 'justify' alignment to a paragraph in a document?

- Ans
- 1. Aligns text only to the left
  - 2. Aligns text only to the right
  - 3. Aligns text to both left and right edges
  - 4. Align text in the center

Question ID : 630680571762  
Option 1 ID : 6306802235952  
Option 2 ID : 6306802235953  
Option 3 ID : 6306802235954  
Option 4 ID : 6306802235955  
Status : Answered  
Chosen Option : 3

**Q.30** Which of the following Ministers introduced the Central Goods and Services Tax (Amendment) Bill 2023 and the Integrated Goods and Services Tax (Amendment) Bill 2023 in the Lok Sabha?

- Ans  1. Nirmala Sitharaman  
 2. Harpal Singh  
 3. Bikram Keshari Arukha  
 4. Manohar Lal Khattar

Question ID : 630680469607  
Option 1 ID : 6306801834191  
Option 2 ID : 6306801834192  
Option 3 ID : 6306801834193  
Option 4 ID : 6306801834194  
Status : Answered  
Chosen Option : 1

**Q.31** Which of the following bacterial infections often affects the lungs?

- Ans  1. Tuberculosis  
 2. Herpes  
 3. Meningitis  
 4. Influenza

Question ID : 630680404156  
Option 1 ID : 6306801576110  
Option 2 ID : 6306801576111  
Option 3 ID : 6306801576112  
Option 4 ID : 6306801576113  
Status : Answered  
Chosen Option : 1

**Q.32** Which Chief Justice of India was sworn in as the acting President of India on 20<sup>th</sup> July 1969?

- Ans  1. Justice Harilal Jekisundas Kania  
 2. Justice M Patanjali Sastri  
 3. Justice Sudhi Ranjan Das  
 4. Justice Mohammad Hidayatullah

Question ID : 630680407827  
Option 1 ID : 6306801590246  
Option 2 ID : 6306801590247  
Option 3 ID : 6306801590248  
Option 4 ID : 6306801590249  
Status : Answered  
Chosen Option : 4

**Q.33** \_\_\_\_\_ is referred to as paper taxes.

- Ans  1. Gift tax  
 2. Corporation tax  
 3. Customs duty  
 4. Excise tax

Question ID : 630680402051  
Option 1 ID : 6306801567904  
Option 2 ID : 6306801567905  
Option 3 ID : 6306801567906  
Option 4 ID : 6306801567907  
Status : Answered  
Chosen Option : 3

**Q.34** Name the scheme launched by the Prime Minister on 17 September 2023 that aims to improve the lives of artisans.

- Ans  1. PM Vishwakarma  
 2. PM Shilpgram  
 3. PM Anantakalpaaya  
 4. PM Kalashi

Question ID : 630680411164  
Option 1 ID : 6306801603412  
Option 2 ID : 6306801603413  
Option 3 ID : 6306801603414  
Option 4 ID : 6306801603415  
Status : Answered  
Chosen Option : 1

**Q.35** Name the first Finance Minister of independent India, whose statue was inaugurated by the Union Textiles Minister in Coimbatore .

- Ans  1. RK Shanmugam Chetty  
 2. CD Deshmukh  
 3. TT Krishnamachari  
 4. Sachindra Chaudhuri

Question ID : 630680412664  
Option 1 ID : 6306801609479  
Option 2 ID : 6306801609480  
Option 3 ID : 6306801609481  
Option 4 ID : 6306801609482  
Status : Answered  
Chosen Option : 2

**Q.36** Which of the following is a macronutrient?

- Ans  1. Vitamins  
 2. Carbohydrates  
 3. Minerals  
 4. Antioxidants

Question ID : 630680411618  
Option 1 ID : 6306801605307  
Option 2 ID : 6306801605308  
Option 3 ID : 6306801605309  
Option 4 ID : 6306801605310  
Status : Answered  
Chosen Option : 2

**Q.37** It is a fact that if you drink from a plastic bottle and throw it in the dustbin, it will still be there when your grandchildren are old. What is the reason behind this?

- Ans  1. Plastics are biodegradable.  
 2. Plastics are radioactive.  
 3. Plastics are non-biodegradable.  
 4. Plastics are heavy metals.

Question ID : 630680403334  
Option 1 ID : 6306801572845  
Option 2 ID : 6306801572846  
Option 3 ID : 6306801572847  
Option 4 ID : 6306801572848  
Status : Answered  
Chosen Option : 3

Q.38 Which of the following articles of the Constitution of India provides measures to ensure the enforcement of Fundamental Rights?

- Ans  1. Article 32  
 2. Article 19  
 3. Article 14  
 4. Article 29

Question ID : 630680511439  
Option 1 ID : 6306801998889  
Option 2 ID : 6306801998887  
Option 3 ID : 6306801998886  
Option 4 ID : 6306801998888  
Status : Answered  
Chosen Option : 1

Q.39 Private income minus tax payment minus non-tax payment will give us the estimate for \_\_\_\_\_.

- Ans  1. private income  
 2. gross income  
 3. personal disposable income  
 4. national income

Question ID : 630680512477  
Option 1 ID : 6306802002879  
Option 2 ID : 6306802002880  
Option 3 ID : 6306802002878  
Option 4 ID : 6306802002881  
Status : Answered  
Chosen Option : 3

Q.40 Who introduced the Anusandhan National Research Foundation Bill, 2023, in the Lok Sabha?

- Ans  1. Dr. Jitender Singh  
 2. Gopal Rai  
 3. Imran Hussain  
 4. Piyush Goyal

Question ID : 630680469598  
Option 1 ID : 6306801834155  
Option 2 ID : 6306801834156  
Option 3 ID : 6306801834157  
Option 4 ID : 6306801834158  
Status : Answered  
Chosen Option : 1

Q.41 Narmada Bachao Andolan (Save Narmada Movement) is a/an \_\_\_\_\_.

- Ans  1. Social movement  
 2. forest conservation movement  
 3. government initiative  
 4. project of Jal Shakti Ministry

Question ID : 630680564468  
Option 1 ID : 6306802206804  
Option 2 ID : 6306802206805  
Option 3 ID : 6306802206803  
Option 4 ID : 6306802206806  
Status : Answered  
Chosen Option : 1

Q.42 You grew a small plant in a planter. On maturity, you observed that the plant has green stem, very few branches and the stem is so soft that you could easily break it with your hands. Under which category will you put this plant?

- Ans
- 1. Tree
  - 2. Creeper
  - 3. Shrub
  - 4. Herb

Question ID : 630680403058  
Option 1 ID : 6306801571801  
Option 2 ID : 6306801571802  
Option 3 ID : 6306801571803  
Option 4 ID : 6306801571804  
Status : Answered  
Chosen Option : 4

Q.43 Who among the following is the author of the book published in December 2021, 'The Monk Who Transformed Uttar Pradesh'?

- Ans
- 1. Yashika Dutta
  - 2. Shantanu Gupta
  - 3. Shashi Tharoor
  - 4. Amish Tripathi

Question ID : 630680394949  
Option 1 ID : 6306801540065  
Option 2 ID : 6306801540064  
Option 3 ID : 6306801540067  
Option 4 ID : 6306801540066  
Status : Answered  
Chosen Option : 1

Q.44 The total number of bishops in a chess game is \_\_\_\_\_.

- Ans
- 1. one
  - 2. two
  - 3. three
  - 4. four

Question ID : 630680430544  
Option 1 ID : 6306801680197  
Option 2 ID : 6306801680198  
Option 3 ID : 6306801680199  
Option 4 ID : 6306801680200  
Status : Answered  
Chosen Option : 4

Q.45 In plant cells, which organelle is responsible for photosynthesis?

- Ans
- 1. Chloroplast
  - 2. Mitochondrion
  - 3. Lysosome
  - 4. Peroxisome

Question ID : 630680411646  
Option 1 ID : 6306801605419  
Option 2 ID : 6306801605420  
Option 3 ID : 6306801605421  
Option 4 ID : 6306801605422  
Status : Answered  
Chosen Option : 1

Q.46 Olympic medalist Vijender Singh belongs to which State of India?

- Ans
- 1. Punjab
  - 2. Delhi
  - 3. Haryana
  - 4. Maharashtra

Question ID : 630680435739  
Option 1 ID : 6306801700873  
Option 2 ID : 6306801700874  
Option 3 ID : 6306801700875  
Option 4 ID : 6306801700876  
Status : Answered  
Chosen Option : 3

Q.47 Which of the following places receives rainfall from the Bay of Bengal branch of southwest monsoon?

- Ans
- 1. Ratnagiri
  - 2. Kolkata
  - 3. Surat
  - 4. Panaji

Question ID : 630680511048  
Option 1 ID : 6306801997323  
Option 2 ID : 6306801997322  
Option 3 ID : 6306801997325  
Option 4 ID : 6306801997324  
Status : Answered  
Chosen Option : 2

Q.48 During which years did Khalji dynasty ruled over Delhi?

- Ans
- 1. 1451 - 1526
  - 2. 1414 - 1451
  - 3. 1320 - 1414
  - 4. 1290 - 1320

Question ID : 630680511634  
Option 1 ID : 6306801999661  
Option 2 ID : 6306801999660  
Option 3 ID : 6306801999659  
Option 4 ID : 6306801999658  
Status : Answered  
Chosen Option : 3

Q.49 The National Defense Fund is governed by an Executive Committee, which is chaired by the:

- Ans
- 1. President
  - 2. Prime Minister
  - 3. Vice President
  - 4. Defence Minister

Question ID : 630680493649  
Option 1 ID : 6306801928324  
Option 2 ID : 6306801928325  
Option 3 ID : 6306801928326  
Option 4 ID : 6306801928327  
Status : Answered  
Chosen Option : 2

**Q.50** Which organelle contains enzymes for digesting cellular waste and foreign materials?

- Ans
- 1. Nucleus
  - 2. Mitochondrion
  - 3. Lysosome
  - 4. Vacuole

Question ID : 630680411632  
Option 1 ID : 6306801605363  
Option 2 ID : 6306801605364  
Option 3 ID : 6306801605365  
Option 4 ID : 6306801605366  
Status : Answered  
Chosen Option : 3

Section : General Engineering Mechanical

**Q.1** In the vapour compression refrigeration cycle with dry saturated vapour after compression, the entropy at the end of compression is the same as the \_\_\_\_\_.

- Ans
- 1. entropy at the end of condensation
  - 2. entropy at the end of evaporation
  - 3. entropy at the end of expansion
  - 4. entropy at the start of expansion

Question ID : 630680506398  
Option 1 ID : 6306801979105  
Option 2 ID : 6306801979107  
Option 3 ID : 6306801979106  
Option 4 ID : 6306801979108  
Status : Answered  
Chosen Option : 2

**Q.2** In which of the following compressors, the top cover is bolted to the compressor housing instead of the welded steel shell?

- Ans
- 1. Semi-hermetic sealed compressor
  - 2. Hermetic sealed compressor
  - 3. Axial compressor
  - 4. Open compressor

Question ID : 630680506436  
Option 1 ID : 6306801979258  
Option 2 ID : 6306801979257  
Option 3 ID : 6306801979260  
Option 4 ID : 6306801979259  
Status : Answered  
Chosen Option : 4

Q.3 Which of the following impellers are best suited to medium sized pumps with a small amount of soft solids?

- Ans  1. Semi-open impellers  
 2. Closed impellers  
 3. Semi-closed impellers  
 4. Open impellers

Question ID : 630680508726  
Option 1 ID : 6306801988207  
Option 2 ID : 6306801988205  
Option 3 ID : 6306801988206  
Option 4 ID : 6306801988204  
Status : Answered  
Chosen Option : 2

Q.4 The given figure shows the p-V diagram of:

- Ans  1. vapour absorption refrigeration system  
 2. aircraft refrigeration system  
 3. Electrolux refrigeration system  
 4. vapour compression refrigeration system

Question ID : 630680332164  
Option 1 ID : 6306801292102  
Option 2 ID : 6306801292104  
Option 3 ID : 6306801292103  
Option 4 ID : 6306801292101  
Status : Answered  
Chosen Option : 4

Q.5 Calculate the polar moment of inertia and the maximum torque transmitted by a solid shaft of diameter 100 mm and length 1.0 m. Let the angle of twist be  $2^\circ$  and the modulus of rigidity,  $G = 80 \text{ GPa}$ .

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

Question ID : 630680205982  
Option 1 ID : 630680798731  
Option 2 ID : 630680798734  
Option 3 ID : 630680798733  
Option 4 ID : 630680798732  
Status : Answered  
Chosen Option : 3

Q.6 Which of the following is the assumption of Air Standard Cycles?

- Ans
- 1. The working medium is assumed to be a real gas
  - 2. Heat is assumed to be supplied from chemical reactions during the cycle
  - 3. Some heat is assumed to be rejected to a constant low temperature sink
  - 4. The working medium has variable specific heat with varying temperature

Question ID : 630680502664  
Option 1 ID : 6306801964238  
Option 2 ID : 6306801964239  
Option 3 ID : 6306801964241  
Option 4 ID : 6306801964240  
Status : Answered  
Chosen Option : 3

Q.7 Which of the following is the effect of frictional resistance to the flow of the steam jet over the blade in steam turbines?

- Ans
- 1. The velocity of flow at the outlet to the moving blade is less than that of flow at the inlet to the moving blade.
  - 2. The velocity of flow at the outlet to the moving blade is equal to that of flow at the inlet to the moving blade.
  - 3. The velocity of flow at the outlet to the moving blade is greater than that of flow at the inlet to the moving blade.
  - 4. There is no effect of frictional resistance to the flow of the steam jet over the blade.

Question ID : 630680502687  
Option 1 ID : 6306801964331  
Option 2 ID : 6306801964330  
Option 3 ID : 6306801964332  
Option 4 ID : 6306801964333  
Status : Answered  
Chosen Option : 1

Q.8

Determine the stress induced in the steel bars of reinforced concrete structure, if the modular ratio for steel and concrete is 14.5 and the stress applied on the concrete is 2.5 MPa.

- Ans
- 1. 42.75 MPa
  - 2. 30.25 MPa
  - 3. 24.50 MPa
  - 4. 36.25 MPa

Question ID : 630680327982

Option 1 ID : 6306801275899

Option 2 ID : 6306801275900

Option 3 ID : 6306801275898

Option 4 ID : 6306801275897

Status : Answered

Chosen Option : 4

Q.9 Under which of the following conditions does the Francis turbine operate?

- Ans
- 1. Medium head and medium discharge
  - 2. High head and high discharge
  - 3. High head and low discharge
  - 4. Low head and high discharge

Question ID : 630680193066

Option 1 ID : 630680748802

Option 2 ID : 630680748804

Option 3 ID : 630680748801

Option 4 ID : 630680748803

Status : Answered

Chosen Option : 1

Q.10 The function of a halide torch is:

- Ans
- 1. superheating the vapour refrigerant
  - 2. defrosting of the cooling coil
  - 3. facilitating better lubrication in the refrigerator
  - 4. detecting leakage of the refrigerant

Question ID : 630680506409

Option 1 ID : 6306801979150

Option 2 ID : 6306801979149

Option 3 ID : 6306801979151

Option 4 ID : 6306801979152

Status : Answered

Chosen Option : 4

Q.11 If  $N$  is the speed of the compressor in RPM, then what will be the isentropic power for a double acting compressor? Where  $W$  = work required by the compressor.

- Ans
- 1.  $WN/60$
  - 2.  $WN/2$
  - 3.  $2WN/60$
  - 4.  $WN$

Question ID : 630680506433  
Option 1 ID : 6306801979246  
Option 2 ID : 6306801979248  
Option 3 ID : 6306801979247  
Option 4 ID : 6306801979245  
Status : Answered  
Chosen Option : 3

Q.12 In a hot working process, metals are deformed \_\_\_\_\_.

- Ans
- 1. at their recrystallisation temperature
  - 2. above their recrystallisation temperature
  - 3. below their recrystallisation temperature
  - 4. at any recrystallisation temperature

Question ID : 630680503239  
Option 1 ID : 6306801966543  
Option 2 ID : 6306801966541  
Option 3 ID : 6306801966542  
Option 4 ID : 6306801966544  
Status : Answered  
Chosen Option : 2

Q.13 For the laminar flow through circular pipes, shear stress distribution across a section is \_\_\_\_\_.

- Ans
- 1. parabolic
  - 2. cubic
  - 3. logarithmic
  - 4. linear

Question ID : 630680193038  
Option 1 ID : 630680748690  
Option 2 ID : 630680748692  
Option 3 ID : 630680748691  
Option 4 ID : 630680748689  
Status : Answered  
Chosen Option : 1

Q.14 Which of the following statements is true about an SI engine in comparison to a CI engine?

- Ans
- 1. The compression ratio is comparatively high.
  - 2. The operating speed is very high.
  - 3. The cost of running is comparatively low.
  - 4. The air-fuel ratio is high.

Question ID : 630680502709  
Option 1 ID : 6306801964419  
Option 2 ID : 6306801964420  
Option 3 ID : 6306801964421  
Option 4 ID : 6306801964418  
Status : Answered  
Chosen Option : 2

Q.15 Which of the following statements is true about the fuel feed pump used for diesel engines?

- Ans  1. It is a spring-loaded, plunger type reciprocating pump.  
 2. It is a centrifugal type pump.  
 3. When the plunger of the feed pump is lifted upwards, the inlet valve remains open. Therefore, it is not suitable to inject fuel at that time.  
 4. The plunger of the fuel feed pump is actuated by the governor.

Question ID : 630680502732  
Option 1 ID : 6306801964512  
Option 2 ID : 6306801964510  
Option 3 ID : 6306801964513  
Option 4 ID : 6306801964511  
Status : Answered  
Chosen Option : 4

Q.16 When the compressor and motor operate on the same shaft and are enclosed in a common casing, they are known as \_\_\_\_\_.

- Ans  1. reciprocating compressors  
 2. centrifugal compressors  
 3. hermetic sealed compressors  
 4. axial compressors

Question ID : 630680506440  
Option 1 ID : 6306801979273  
Option 2 ID : 6306801979274  
Option 3 ID : 6306801979275  
Option 4 ID : 6306801979276  
Status : Answered  
Chosen Option : 3

Q.17 When the fluid pressure is measured above the absolute zero pressure, the measured pressure is known as \_\_\_\_\_.

- Ans  1. vacuum pressure  
 2. absolute pressure  
 3. atmospheric pressure  
 4. gauge pressure

Question ID : 630680193056  
Option 1 ID : 630680748764  
Option 2 ID : 630680748762  
Option 3 ID : 630680748761  
Option 4 ID : 630680748763  
Status : Answered  
Chosen Option : 2

Q.18 Which of the following factors is taken into consideration when determining the maximum suction height of a centrifugal pump?

- Ans
- 1. Manometric efficiency
  - 2. Priming
  - 3. Mechanical efficiency
  - 4. Cavitation

Question ID : 630680193035  
Option 1 ID : 630680748679  
Option 2 ID : 630680748677  
Option 3 ID : 630680748680  
Option 4 ID : 630680748678  
Status : Answered  
Chosen Option : 1

Q.19 Which of the following statements is true about quantity governing?

- Ans
- 1. Due to quantity governing, the engine efficiency is altered.
  - 2. The compression ratio varies with charge supplied.
  - 3. The mixture strength remains the same with variation in the speed of the engine.
  - 4. This method is mostly preferred for diesel engines.

Question ID : 630680502681  
Option 1 ID : 6306801964309  
Option 2 ID : 6306801964308  
Option 3 ID : 6306801964306  
Option 4 ID : 6306801964307  
Status : Answered  
Chosen Option : 4

Q.20 Which of the following is the correct designation of the refrigerant  $\text{CCl}_3\text{F}$ ?

- Ans
- 1. R 11
  - 2. R 21
  - 3. R 12
  - 4. R 22

Question ID : 630680506454  
Option 1 ID : 6306801979329  
Option 2 ID : 6306801979331  
Option 3 ID : 6306801979330  
Option 4 ID : 6306801979332  
Status : Answered  
Chosen Option : 3

Q.21 Which of the following statements is true about hit and miss governing?

- Ans
- 1. It increases the efficiency of engine.
  - 2. It is a suitable governing method for heavy IC engines.
  - 3. In this method of governing, none of the cycles should be idle throughout the running of engine.
  - 4. This method of governing requires higher weight of flywheel.

Question ID : 630680502674  
Option 1 ID : 6306801964279  
Option 2 ID : 6306801964278  
Option 3 ID : 6306801964281  
Option 4 ID : 6306801964280  
Status : Answered  
Chosen Option : 2

Q.22 A cantilever beam of length 2 m is subjected to a point load of 3 kN at a distance of 2 m and is subjected to a UDL of 3 kN/m for a total distance of 1.5 m from the fixed end. Calculate the shear force and bending moment at the fixed end.

- Ans
- 1. -12.5 kN, -8.547 kN-m
  - 2. -7.5 kN, -9.375 kN-m
  - 3. -10 kN, 15.254 kN-m
  - 4. -5.75 kN, -5.545 kN-m

Question ID : 630680205958  
Option 1 ID : 630680798638  
Option 2 ID : 630680798635  
Option 3 ID : 630680798636  
Option 4 ID : 630680798637  
Status : Answered  
Chosen Option : 2

Q.23 The heat rejection in Stirling cycle takes place at:

- Ans
- 1. constant pressure
  - 2. constant temperature
  - 3. constant enthalpy
  - 4. constant volume

Question ID : 630680412680  
Option 1 ID : 6306801609544  
Option 2 ID : 6306801609545  
Option 3 ID : 6306801609546  
Option 4 ID : 6306801609543  
Status : Answered  
Chosen Option : 4

Q.24 Which of the following is correct for Pelton wheel?  
Where,  $\alpha$  &  $\beta$  = guide blade angle at inlet and outlet, respectively  
 $\Theta$  &  $\phi$  = vane angle at inlet and outlet, respectively

- Ans
- 1.  $\beta = 0^\circ$  and  $\phi = 0^\circ$
  - 2.  $\alpha = 0^\circ$  and  $\beta = 0^\circ$
  - 3.  $\alpha = 0^\circ$  and  $\phi = 0^\circ$
  - 4.  $\alpha = 0^\circ$  and  $\Theta = 0^\circ$

Question ID : 630680508732  
Option 1 ID : 6306801988229  
Option 2 ID : 6306801988230  
Option 3 ID : 6306801988228  
Option 4 ID : 6306801988231  
Status : Answered  
Chosen Option : 1

Q.25 'No slip condition' at a fixed surface is applicable to the flow of which type of fluids?

- Ans  1. All real fluids  
 2. Only ideal fluids  
 3. All non-Newtonian fluids  
 4. Only Newtonian fluids

Question ID : 630680508717  
Option 1 ID : 6306801988170  
Option 2 ID : 6306801988171  
Option 3 ID : 6306801988169  
Option 4 ID : 6306801988168  
Status : Answered  
Chosen Option : 4

Q.26 Which of the following claims about the irreversibility of a system is true?

- Ans  1. Irreversible processes violate the zeroth law of thermodynamics.  
 2. Irreversible processes violate the first law of thermodynamics.  
 3. Irreversible processes increase the entropy of the system.  
 4. Irreversible processes are always spontaneous.

Question ID : 630680503226  
Option 1 ID : 6306801966490  
Option 2 ID : 6306801966489  
Option 3 ID : 6306801966491  
Option 4 ID : 6306801966492  
Status : Answered  
Chosen Option : 4

Q.27 Which of the following machines violates the Kelvin Planck's statement?

- Ans  1. Reversible heat engine  
 2. PMM2  
 3. PMM1  
 4. Irreversible heat engine

Question ID : 630680503256  
Option 1 ID : 6306801966609  
Option 2 ID : 6306801966612  
Option 3 ID : 6306801966611  
Option 4 ID : 6306801966610  
Status : Answered  
Chosen Option : 2

Q.28 Which of the following refrigeration lubricants were the first synthetic oils to be used in the refrigeration industry?

- Ans  1. Alkylbenzenes oil  
 2. Polyol ester oil  
 3. Mineral oil  
 4. Poly alkylene glycol oil

Question ID : 630680506418  
Option 1 ID : 6306801979186  
Option 2 ID : 6306801979187  
Option 3 ID : 6306801979185  
Option 4 ID : 6306801979188  
Status : Answered  
Chosen Option : 4

**Q.29** What will not happen if the liquid has greater adhesion than cohesion?

- Ans
- 1. The angle of contact will be less than  $90^\circ$  in a small diameter tube.
  - 2. Liquid will tend to rise at the point of contact.
  - 3. Liquid surface will be concave downwards in a small diameter tube.
  - 4. Liquid will wet a solid surface.

Question ID : 630680198993  
Option 1 ID : 630680771702  
Option 2 ID : 630680771700  
Option 3 ID : 630680771701  
Option 4 ID : 630680771699  
Status : Answered  
Chosen Option : 1

**Q.30** The casting process that employs a permanent metal or ceramic mould, is \_\_\_\_\_.

- Ans
- 1. die casting
  - 2. centrifugal casting
  - 3. sand casting
  - 4. investment casting

Question ID : 630680503205  
Option 1 ID : 6306801966407  
Option 2 ID : 6306801966408  
Option 3 ID : 6306801966405  
Option 4 ID : 6306801966406  
Status : Answered  
Chosen Option : 1

**Q.31** Which of the following is NOT a part of a bucket type steam trap?

- Ans
- 1. Injector
  - 2. Spiral vane
  - 3. Guide tube
  - 4. Float

Question ID : 630680502654  
Option 1 ID : 6306801964201  
Option 2 ID : 6306801964200  
Option 3 ID : 6306801964199  
Option 4 ID : 6306801964198  
Status : Answered  
Chosen Option : 1

**Q.32** Which of the following evaporators are used for refrigeration units of 2 to 250 TR capacity?

- Ans
- 1. Shell and coil evaporators
  - 2. Dry expansion shell and tube evaporators
  - 3. Flooded shell and tube evaporators
  - 4. Plate evaporators

Question ID : 630680506419  
Option 1 ID : 6306801979190  
Option 2 ID : 6306801979192  
Option 3 ID : 6306801979189  
Option 4 ID : 6306801979191  
Status : Answered  
Chosen Option : 1

Q.33 Which of the following assertions related to drilling is true?

- Ans
- 1. Drilling is a process that uses a hammer to make a hole in a workpiece.
  - 2. Drilling is a process that uses a non-rotating tool to make a hole in a workpiece.
  - 3. Drilling is a process that uses a saw to make a hole in a workpiece.
  - 4. Drilling is a process that uses a rotating tool to make a hole in a workpiece.

Question ID : 630680503223  
Option 1 ID : 6306801966480  
Option 2 ID : 6306801966478  
Option 3 ID : 6306801966479  
Option 4 ID : 6306801966477  
Status : Answered  
Chosen Option : 4

Q.34 Variation of power input with speed at constant discharge in case of a centrifugal pump is \_\_\_\_\_.

- Ans
- 1. linear
  - 2. logarithmic
  - 3. cubic
  - 4. parabolic

Question ID : 630680198968  
Option 1 ID : 630680771599  
Option 2 ID : 630680771602  
Option 3 ID : 630680771601  
Option 4 ID : 630680771600  
Status : Answered  
Chosen Option : 3

Q.35 Which of the following statements best describes the second law of thermodynamics in relation to cyclic heat and work processes?

- Ans
- 1. In a cyclic process, the net work output can be equal to, greater than or less than the net heat input, depending on the efficiency of the process.
  - 2. In a cyclic process, the net heat transfer is always less than the net work done.
  - 3. In a cyclic process, the net heat transfer is equal to the net work done.
  - 4. In a cyclic process, the net heat transfer is always greater than the net work done.

Question ID : 630680503230  
Option 1 ID : 6306801966508  
Option 2 ID : 6306801966507  
Option 3 ID : 6306801966505  
Option 4 ID : 6306801966506  
Status : Answered  
Chosen Option : 3

Q.36 The process that involves passage of a higher-pressure fluid through a narrow constriction is called:

- Ans
- 1. throttling process
  - 2. hyperbolic process
  - 3. free expansion process
  - 4. polytropic process

Question ID : 630680348148  
Option 1 ID : 6306801354884  
Option 2 ID : 6306801354882  
Option 3 ID : 6306801354883  
Option 4 ID : 6306801354881  
Status : Answered  
Chosen Option : 1

Q.37 The brake power of an engine can be measured by using a rope brake dynamometer. It is given by the expression: (Where, 'D' is diameter of the brake drum; 'W' is the weight and 'S' is the spring scale reading, 'N' Speed in rpm)

- Ans
- 1.  $\pi DN (W + S)$
  - 2.  $DN (W + S)$
  - 3.  $DN (W - S)$
  - 4.  $\pi DN (W - S)$

Question ID : 630680386536  
Option 1 ID : 6306801506854  
Option 2 ID : 6306801506857  
Option 3 ID : 6306801506856  
Option 4 ID : 6306801506855  
Status : Answered  
Chosen Option : 1

Q.38 Which of the following is NOT a type of sawing?

- Ans
- 1. Circular sawing
  - 2. Hack sawing
  - 3. Straight sawing
  - 4. Band sawing

Question ID : 630680503248  
Option 1 ID : 6306801966580  
Option 2 ID : 6306801966577  
Option 3 ID : 6306801966579  
Option 4 ID : 6306801966578  
Status : Answered  
Chosen Option : 2

Q.39 In the battery ignition system for SI engines, with increase in the speed, the \_\_\_\_\_.

- Ans
- 1. sparking voltage drops
  - 2. sparking voltage first increases and then becomes constant
  - 3. sparking voltage increases
  - 4. sparking voltage remains the same

Question ID : 630680502730  
Option 1 ID : 6306801964503  
Option 2 ID : 6306801964505  
Option 3 ID : 6306801964502  
Option 4 ID : 6306801964504  
Status : Answered  
Chosen Option : 2

Q.40 For the H-S diagram of a vapour compression refrigeration cycle, the specific enthalpy of the refrigerant coming out from the compressor \_\_\_\_\_.

- Ans
- 1. may increase or decrease
  - 2. decreases
  - 3. increases
  - 4. remains constant

Question ID : 630680506443  
Option 1 ID : 6306801979288  
Option 2 ID : 6306801979286  
Option 3 ID : 6306801979285  
Option 4 ID : 6306801979287  
Status : Answered  
Chosen Option : 3

Q.41 Which of the following gas combination is commonly used in oxyfuel-gas welding?

- Ans
- 1. Oxygen and acetylene
  - 2. Oxygen and H<sub>2</sub>
  - 3. Oxygen and Nitrogen
  - 4. Oxygen and CO<sub>2</sub>

Question ID : 630680503272  
Option 1 ID : 6306801966673  
Option 2 ID : 6306801966675  
Option 3 ID : 6306801966676  
Option 4 ID : 6306801966674  
Status : Answered  
Chosen Option : 1

Q.42 Which of the following does NOT indicate that the refrigeration plant has to be charged with the refrigerant?

- Ans
- 1. Reduction in the efficiency of the plant
  - 2. Short cycling of compressor
  - 3. High suction pressure
  - 4. Difficult to maintain temperature of rooms and holds

Question ID : 630680506410  
Option 1 ID : 6306801979156  
Option 2 ID : 6306801979153  
Option 3 ID : 6306801979154  
Option 4 ID : 6306801979155  
Status : Answered  
Chosen Option : 4

Q.43 A drill bit of diameter 25 mm has cutting speed of 15.7 m/min. What is the speed of rotation of drill?

- Ans
- 1. 200 RPM
  - 2. 314 RPM
  - 3. 400 RPM
  - 4. 500 RPM

Question ID : 630680503251  
Option 1 ID : 6306801966590  
Option 2 ID : 6306801966592  
Option 3 ID : 6306801966589  
Option 4 ID : 6306801966591  
Status : Answered  
Chosen Option : 1

Q.44 In the porter governor, the main constituent of controlling force is:

- Ans
- 1. mass of flyball
  - 2. friction force
  - 3. mass of sleeve
  - 4. spring force

Question ID : 630680509132  
Option 1 ID : 6306801989825  
Option 2 ID : 6306801989824  
Option 3 ID : 6306801989826  
Option 4 ID : 6306801989823  
Status : Answered  
Chosen Option : 3

Q.45 The distance of centre of pressure from free surface of liquid is independent of:

- Ans
- 1. the density of liquid
  - 2. the distance of C.G. from free surface of liquid
  - 3. the surface area
  - 4. the moment of inertia

Question ID : 630680508637  
Option 1 ID : 6306801987850  
Option 2 ID : 6306801987851  
Option 3 ID : 6306801987849  
Option 4 ID : 6306801987848  
Status : Answered  
Chosen Option : 1

Q.46 Which of the following prevents the high-pressure vapour refrigerant from flowing back to the evaporator in rotating blade type rotary compressor?

- Ans
- 1. Throttling valve
  - 2. Check valve
  - 3. Pressure valve
  - 4. Safety valve

Question ID : 630680506437  
Option 1 ID : 6306801979262  
Option 2 ID : 6306801979263  
Option 3 ID : 6306801979264  
Option 4 ID : 6306801979261  
Status : Answered  
Chosen Option : 2

Q.47 In the process of brazing, the filler metal is drawn into the joint by means of \_\_\_\_\_.

- Ans
- 1. Low viscosity
  - 2. High diffusion
  - 3. Capillary action
  - 4. Surface tension

Question ID : 630680205053  
Option 1 ID : 630680795077  
Option 2 ID : 630680795078  
Option 3 ID : 630680795076  
Option 4 ID : 630680795075  
Status : Answered  
Chosen Option : 3

**Q.48** Carbon steel contains a carbon percentage of about 0.21%. The possible type of carbon steel is \_\_\_\_\_.

- Ans
- 1. alloy steel
  - 2. stainless steel
  - 3. mild steel
  - 4. medium carbon steel

Question ID : 630680191553  
Option 1 ID : 630680742833  
Option 2 ID : 630680742836  
Option 3 ID : 630680742835  
Option 4 ID : 630680742834  
Status : Answered  
Chosen Option : 3

**Q.49** Total gradient line (or total energy line) is parallel to hydraulic gradient line with a vertical distance of \_\_\_\_\_. (The symbols have their usual meanings.)

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

Question ID : 630680198989  
Option 1 ID : 630680771684  
Option 2 ID : 630680771685  
Option 3 ID : 630680771686  
Option 4 ID : 630680771683  
Status : Answered  
Chosen Option : 1

**Q.50** Which of the following is NOT the application for steam in industry?

- Ans
- 1. Heating
  - 2. Propulsion
  - 3. De-atomisation
  - 4. Humidification

Question ID : 630680348139  
Option 1 ID : 6306801354845  
Option 2 ID : 6306801354846  
Option 3 ID : 6306801354848  
Option 4 ID : 6306801354847  
Status : Answered  
Chosen Option : 3

Q.51 A cooling system is essentially required in internal combustion engines to

- Ans
- 1. keep the engine very hot or very cool
  - 2. remove heat at a faster rate when the engine is cool
  - 3. remove heat at a faster rate when engine is hot
  - 4. remove about 70% of heat generated in the combustion chamber

Question ID : 630680382380  
Option 1 ID : 6306801490436  
Option 2 ID : 6306801490437  
Option 3 ID : 6306801490435  
Option 4 ID : 6306801490438  
Status : Answered  
Chosen Option : 3

Q.52 Which of the following is NOT a frequent pattern-making process in manufacturing?

- Ans
- 1. Welding pattern
  - 2. Investment pattern
  - 3. Match plate pattern
  - 4. Sweep pattern

Question ID : 630680503200  
Option 1 ID : 6306801966388  
Option 2 ID : 6306801966387  
Option 3 ID : 6306801966386  
Option 4 ID : 6306801966385  
Status : Answered  
Chosen Option : 1

Q.53 The location of centre of gravity for a sphere of radius (R) from the geometrical centre is at a distance of:

- Ans
- 1. R
  - 2. 0.25R
  - 3. 0
  - 4. 0.5R

Question ID : 630680509611  
Option 1 ID : 6306801991665  
Option 2 ID : 6306801991667  
Option 3 ID : 6306801991668  
Option 4 ID : 6306801991666  
Status : Answered  
Chosen Option : 3

Q.54 Which of the following is NOT a lathe turning operation?

- Ans
- 1. Sawing
  - 2. Facing
  - 3. Grooving
  - 4. Threading

Question ID : 630680503220  
Option 1 ID : 6306801966467  
Option 2 ID : 6306801966465  
Option 3 ID : 6306801966468  
Option 4 ID : 6306801966466  
Status : Answered  
Chosen Option : 1

**Q.55** A closed system undergoes a cycle consisting of two processes. Process 1-2 is an isothermal expansion whereas Process 2-1 is an isentropic compression. According to the first law of thermodynamics, which of the following statements is true for this cycle?

- Ans**
- 1. Work done during Process 1-2 is zero.
  - 2. Heat transfer during Process 2-1 is zero.
  - 3. Work done during Process 2-1 is zero.
  - 4. Heat transfer during Process 1-2 is zero.

Question ID : 630680503235  
Option 1 ID : 6306801966525  
Option 2 ID : 6306801966528  
Option 3 ID : 6306801966526  
Option 4 ID : 6306801966527  
Status : Answered  
Chosen Option : 2

**Q.56** The Kaplan turbine is an example of \_\_\_\_\_ .

- Ans**
- 1. tangential flow turbine
  - 2. radial flow turbine
  - 3. mixed-flow turbine
  - 4. axial flow turbine

Question ID : 630680193067  
Option 1 ID : 630680748805  
Option 2 ID : 630680748808  
Option 3 ID : 630680748806  
Option 4 ID : 630680748807  
Status : Answered  
Chosen Option : 2

**Q.57** In which of the following areas is supercharging NOT so important?

- Ans**
- 1. Engines working at high altitudes
  - 2. Racing cars
  - 3. Marine and automotive engines where weight and space are important
  - 4. Domestic bikes

Question ID : 630680502665  
Option 1 ID : 6306801964243  
Option 2 ID : 6306801964244  
Option 3 ID : 6306801964242  
Option 4 ID : 6306801964245  
Status : Answered  
Chosen Option : 3

**Q.58** What will be the value of the axial thrust on a wheel when there is no blade friction?

- Ans**
- 1. Zero
  - 2. Minimum
  - 3. Maximum
  - 4. Equal to the tangential force on the blade

Question ID : 630680502690  
Option 1 ID : 6306801964344  
Option 2 ID : 6306801964343  
Option 3 ID : 6306801964342  
Option 4 ID : 6306801964345  
Status : Answered  
Chosen Option : 1

**Q.59** Which of the following statements is correct about the location of centre of pressure?

- Ans  1. Centre of pressure may lie at any location irrespective of the centre of gravity of the vertically immersed surface.
2. Centre of pressure coincides with the centre of gravity of the vertically immersed surface.
3. Centre of pressure lies below the centre of gravity of the vertically immersed surface.
4. Centre of pressure lies above the centre of gravity of the vertically immersed surface.

Question ID : 630680199002  
Option 1 ID : 630680771738  
Option 2 ID : 630680771737  
Option 3 ID : 630680771735  
Option 4 ID : 630680771736  
Status : Answered  
Chosen Option : 3

**Q.60** In a Hartnell governor, if a spring of greater stiffness is used, then the governor will be:

- Ans  1. insensitive
2. less sensitive
3. Isochronous
4. more sensitive

Question ID : 630680335145  
Option 1 ID : 6306801303800  
Option 2 ID : 6306801303798  
Option 3 ID : 6306801303799  
Option 4 ID : 6306801303797  
Status : Answered  
Chosen Option : 2

**Q.61** When pressure is measured above the atmospheric pressure, it is termed as:

- Ans  1. absolute pressure
2. gauge pressure
3. vacuum pressure
4. stagnation pressure

Question ID : 630680508636  
Option 1 ID : 6306801987844  
Option 2 ID : 6306801987846  
Option 3 ID : 6306801987845  
Option 4 ID : 6306801987847  
Status : Answered  
Chosen Option : 2

**Q.62** The Kelvin-Planck statement of the Second Law states that \_\_\_\_\_.

- Ans  1. work can be converted completely into heat
2. it is impossible to convert all the heat absorbed from a single reservoir into work
3. heat cannot flow spontaneously from a colder body to a hotter body
4. it is possible to convert all the heat absorbed from a single reservoir into work

Question ID : 630680503229  
Option 1 ID : 6306801966504  
Option 2 ID : 6306801966501  
Option 3 ID : 6306801966503  
Option 4 ID : 6306801966502  
Status : Answered  
Chosen Option : 2

Q.63 If there is flow of real fluid at fixed boundary, then no-slip condition:

- Ans
- 1. does not occur
  - 2. may or may not occur
  - 3. depends on the type of flow
  - 4. occurs

Question ID : 630680508622  
Option 1 ID : 6306801987788  
Option 2 ID : 6306801987790  
Option 3 ID : 6306801987791  
Option 4 ID : 6306801987789  
Status : Answered  
Chosen Option : 2

Q.64 If the power output of a hydraulic turbine is 100 kW and overall efficiency is 50%, then what will be the power supplied at the inlet of the turbine?

- Ans
- 1. 200 kW
  - 2. 250 kW
  - 3. 150 kW
  - 4. 50 kW

Question ID : 630680508632  
Option 1 ID : 6306801987830  
Option 2 ID : 6306801987831  
Option 3 ID : 6306801987829  
Option 4 ID : 6306801987828  
Status : Answered  
Chosen Option : 1

Q.65 The overall efficiency of the turbine is given by:

- Ans
- 1. overall efficiency = mechanical efficiency / hydraulic efficiency
  - 2. overall efficiency = hydraulic efficiency / mechanical efficiency
  - 3. overall efficiency = hydraulic efficiency  $\times$  mechanical efficiency
  - 4. overall efficiency = mechanical efficiency<sup>2</sup> / hydraulic efficiency<sup>2</sup>

Question ID : 630680508612  
Option 1 ID : 6306801987749  
Option 2 ID : 6306801987748  
Option 3 ID : 6306801987751  
Option 4 ID : 6306801987750  
Status : Answered  
Chosen Option : 3

Q.66 The fluid that becomes less viscous as it is sheared harder is called \_\_\_\_\_.

- Ans
- 1. dilatant fluid
  - 2. thixotropic fluid
  - 3. Newtonian fluid
  - 4. pseudo-plastic fluid

Question ID : 630680508720  
Option 1 ID : 6306801988181  
Option 2 ID : 6306801988180  
Option 3 ID : 6306801988183  
Option 4 ID : 6306801988182  
Status : Answered  
Chosen Option : 1

Q.67 Which of the following statements is INCORRECT about the air pre-heater in a steam boiler?

- Ans
- 1. In the tubular type of air pre-heater, hot flue gases flow in the direction opposite to that of air travel.
  - 2. In the regenerative type of air pre-heater, heat from flue gases is transferred to air through an intermediate heat storage medium.
  - 3. Use of the air pre-heater leads to less atmospheric pollution.
  - 4. In the tubular type of air pre-heater, hot flue gases flow through the outside of the tubes of the air pre-heater.

Question ID : 630680502656  
Option 1 ID : 6306801964209  
Option 2 ID : 6306801964207  
Option 3 ID : 6306801964208  
Option 4 ID : 6306801964206  
Status : Answered  
Chosen Option : 4

Q.68 A cyclic heat engine takes 40 kJ of heat from a 100°C temperature reservoir. If it gives 40 kJ of work, then which of the following statements is correct?

- Ans
- 1. The engine violates the Kelvin Planck's statement
  - 2. The engine violates the Clausius statement.
  - 3. The engine violates the 1st law of thermodynamics.
  - 4. The engine violates 1st law of thermodynamics as well as Kelvin Planck's statement.

Question ID : 630680503257  
Option 1 ID : 6306801966614  
Option 2 ID : 6306801966615  
Option 3 ID : 6306801966613  
Option 4 ID : 6306801966616  
Status : Answered  
Chosen Option : 1

Q.69 Which of the following is NOT an example of Newtonian fluid?

- Ans
- 1. Water
  - 2. Printer's ink
  - 3. Kerosene
  - 4. Air

Question ID : 630680199007  
Option 1 ID : 630680771755  
Option 2 ID : 630680771758  
Option 3 ID : 630680771757  
Option 4 ID : 630680771756  
Status : Answered  
Chosen Option : 2

**Q.70** In case of a four-stroke diesel engine, the valve timing diagram is expressed in terms of \_\_\_\_\_.

- Ans**
- 1. the time taken for opening and closing of the valve with respect to only TDC
  - 2. the time taken for opening and closing of the valve with respect to TDC and BDC
  - 3. the degree of the crank angle at the time of opening and closing of the valve
  - 4. the linear movement of the piston with respect to TDC and BDC

Question ID : 630680502711  
Option 1 ID : 6306801964427  
Option 2 ID : 6306801964426  
Option 3 ID : 6306801964428  
Option 4 ID : 6306801964429  
Status : Answered  
Chosen Option : 3

**Q.71** Which of the following statements is INCORRECT about no slip boundary condition?

- Ans**
- 1. In case of the no slip boundary condition at a fixed solid boundary, the fluid will have zero velocity.
  - 2. During no slip condition the fluid velocity at all fluid–solid boundaries is equal to that of the solid boundary.
  - 3. The no slip condition can be defined for viscous flows.
  - 4. In case of the no slip boundary condition at a fixed solid boundary, the fluid will have some velocity relative to the boundary.

Question ID : 630680199006  
Option 1 ID : 630680771753  
Option 2 ID : 630680771751  
Option 3 ID : 630680771754  
Option 4 ID : 630680771752  
Status : Answered  
Chosen Option : 4

**Q.72** A sample of an ideal gas is compressed isothermally from volume of 4 l to 2 l. If the initial pressure is 2 atm, what is the final pressure?

- Ans**
- 1. 1 atm
  - 2. 4 atm
  - 3. 8 atm
  - 4. 2 atm

Question ID : 630680503215  
Option 1 ID : 6306801966445  
Option 2 ID : 6306801966447  
Option 3 ID : 6306801966448  
Option 4 ID : 6306801966446  
Status : Answered  
Chosen Option : 2

**Q.73** The surging phenomenon in a centrifugal compressor occurs when the refrigeration load decreases to below:

- Ans
- 1. 35% of the rated capacity
  - 2. 65% of the rated capacity
  - 3. 55% of the rated capacity
  - 4. 45% of the rated capacity

Question ID : 630680506395  
Option 1 ID : 6306801979093  
Option 2 ID : 6306801979096  
Option 3 ID : 6306801979095  
Option 4 ID : 6306801979094  
Status : Answered  
Chosen Option : 4

**Q.74** In actual air-conditioning applications, the heat rejection factor depends upon the:

- Ans
- 1. rate of flow
  - 2. evaporator temperature
  - 3. evaporator and condenser temperatures
  - 4. condenser temperature

Question ID : 630680506427  
Option 1 ID : 6306801979223  
Option 2 ID : 6306801979222  
Option 3 ID : 6306801979224  
Option 4 ID : 6306801979221  
Status : Answered  
Chosen Option : 3

**Q.75** For measurement of dryness fraction of steam, use of a separating calorimeter is suitable \_\_\_\_\_.

- Ans
- 1. when dryness fraction is greater than 1
  - 2. for any condition of steam
  - 3. when dryness fraction is greater than 0.95
  - 4. when dryness fraction is less than 0.95

Question ID : 630680502761  
Option 1 ID : 6306801964629  
Option 2 ID : 6306801964628  
Option 3 ID : 6306801964626  
Option 4 ID : 6306801964627  
Status : Answered  
Chosen Option : 4

**Q.76** The mass transfer process in an open system is commonly modelled using the \_\_\_\_\_ equation.

- Ans
- 1. third law of thermodynamics
  - 2. second law of thermodynamics
  - 3. mass balance
  - 4. zeroth law of thermodynamics

Question ID : 630680503178  
Option 1 ID : 6306801966299  
Option 2 ID : 6306801966298  
Option 3 ID : 6306801966300  
Option 4 ID : 6306801966297  
Status : Answered  
Chosen Option : 3

**Q.77** Which of the following statements are correct regarding the characteristics of Entropy?

- 1) It increases when heat is supplied irrespective of the fact whether temperature changes or not.
- 2) It decreases when heat is removed whether temperature changes or not.
- 3) It remains unchanged in all adiabatic frictionless processes.
- 4) It increases if temperature of heat is lowered without work being done as in a throttling process.

- Ans**
- 1. 1, 2, 3 and 4
  - 2. Only 1, 2 and 3
  - 3. Only 1, 3 and 4
  - 4. Only 2, 3 and 4

Question ID : 630680395246  
Option 1 ID : 6306801541195  
Option 2 ID : 6306801541192  
Option 3 ID : 6306801541194  
Option 4 ID : 6306801541193  
Status : Answered  
Chosen Option : 2

**Q.78** The zeroth law of thermodynamics is based on the concept of \_\_\_\_\_.

- Ans**
- 1. enthalpy
  - 2. temperature
  - 3. heat capacity
  - 4. entropy

Question ID : 630680503210  
Option 1 ID : 6306801966428  
Option 2 ID : 6306801966427  
Option 3 ID : 6306801966425  
Option 4 ID : 6306801966426  
Status : Answered  
Chosen Option : 2

**Q.79** In a boiler test, the water supplied to a boiler per hour is 2250 kg. The mass of water in the boiler at the end of the one hour is found to be less than that at commencement by 250 kg. The coal burnt per hour is 250 kg. What will be the actual evaporation per kg of the fuel burnt of the boiler?

- Ans**
- 1. 8 kg
  - 2. 10 kg
  - 3. 2500 kg
  - 4. 250 kg

Question ID : 630680502645  
Option 1 ID : 6306801964162  
Option 2 ID : 6306801964163  
Option 3 ID : 6306801964165  
Option 4 ID : 6306801964164  
Status : Answered  
Chosen Option : 2

**Q.80** If a point is to be at the free surface of a liquid open to the atmosphere, where the pressure is the atmospheric pressure  $P_{atm}$ , then the gauge pressure at a depth 'h' from the free surface becomes:

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

Question ID : 630680508737  
Option 1 ID : 6306801988248  
Option 2 ID : 6306801988250  
Option 3 ID : 6306801988251  
Option 4 ID : 6306801988249  
Status : Answered  
Chosen Option : 1

**Q.81** Name the welding defect in which we observe a long and continuous visual separation line between the base metal and the heat affected zone.

- Ans
- 1. Lamellar tearing
  - 2. Hot cracking
  - 3. Incomplete fusion
  - 4. Undercut

Question ID : 630680211307  
Option 1 ID : 630680819375  
Option 2 ID : 630680819376  
Option 3 ID : 630680819377  
Option 4 ID : 630680819378  
Status : Answered  
Chosen Option : 1

**Q.82** What will be the power lost in friction assuming uniform pressure theory, when a vertical shaft of 100 mm diameter rotating at 150 r.p.m. rests on a flat end foot step bearing? The coefficient of friction is equal to 0.05 and the shaft carries a vertical load of 15 KN.

- Ans
- 1. 392.7 W
  - 2. 392.7 KW
  - 3. 39.27 KW
  - 4. 39.27 W

Question ID : 630680227834  
Option 1 ID : 630680884013  
Option 2 ID : 630680884011  
Option 3 ID : 630680884012  
Option 4 ID : 630680884014  
Status : Answered  
Chosen Option : 1

Q.83 The conventional depth of a cut considered in the parting operation using a lathe is \_\_\_\_\_.

- Ans
- 1. 3 mm to 10 mm
  - 2. 20 mm to 25 mm
  - 3. 12 mm to 16 mm
  - 4. 1 mm to 2 mm

Question ID : 630680205078  
Option 1 ID : 630680795175  
Option 2 ID : 630680795178  
Option 3 ID : 630680795177  
Option 4 ID : 630680795176  
Status : Answered  
Chosen Option : 4

Q.84 The heat transfer during constant pressure heating of a gas in a cylinder containing a sliding piston is equal to \_\_\_\_\_.

- Ans
- 1. zero
  - 2. the change in enthalpy
  - 3. the work done by the piston
  - 4. the change in internal energy

Question ID : 630680503275  
Option 1 ID : 6306801966688  
Option 2 ID : 6306801966686  
Option 3 ID : 6306801966687  
Option 4 ID : 6306801966685  
Status : Answered  
Chosen Option : 2

Q.85 Which part of the arc welding element/equipment is consumable?

- Ans
- 1. Electrode
  - 2. AC/DC transformer
  - 3. Electrical cables
  - 4. Electrode holder

Question ID : 630680205050  
Option 1 ID : 630680795066  
Option 2 ID : 630680795064  
Option 3 ID : 630680795063  
Option 4 ID : 630680795065  
Status : Answered  
Chosen Option : 1

**Q.86 Which of the following options is correct about four-stroke engines when compared with two-stroke engines?**

- Ans**
- 1. The thermodynamic cycle is completed in two strokes of the piston or in one revolution of the crankshaft.
  - 2. Thermal efficiency is higher.
  - 3. Light weight and simplicity due to absence of the valve actuating mechanism, with the initial cost of the engine being low
  - 4. Lower volumetric efficiency due to lesser time taken for mixture intake

Question ID : 630680181695  
Option 1 ID : 630680704022  
Option 2 ID : 630680704024  
Option 3 ID : 630680704025  
Option 4 ID : 630680704023  
Status : Answered  
Chosen Option : 2

**Q.87 Which of the following is used to increase the temperature of steam above its saturation temperature?**

- Ans**
- 1. Superheater
  - 2. Air pre-heater
  - 3. Steam dryer
  - 4. Economiser

Question ID : 630680502707  
Option 1 ID : 6306801964412  
Option 2 ID : 6306801964411  
Option 3 ID : 6306801964413  
Option 4 ID : 6306801964410  
Status : Answered  
Chosen Option : 1

**Q.88 The manometric head of a centrifugal pump is independent of which of the following factors?**

- Ans**
- 1. Frictional head loss in suction pipe
  - 2. Loss of head in impeller and casing
  - 3. Frictional losses in bearings
  - 4. Frictional head loss in delivery pipe

Question ID : 630680198966  
Option 1 ID : 630680771592  
Option 2 ID : 630680771591  
Option 3 ID : 630680771593  
Option 4 ID : 630680771594  
Status : Answered  
Chosen Option : 3

Q.89 Enthalpy of a system in an open flow is given by  $h = u + pv$ , where  $pv$  is the \_\_\_\_\_.

- Ans
- 1. moving boundary work
  - 2. flow work
  - 3. external work
  - 4. momentum energy

Question ID : 630680503243  
Option 1 ID : 6306801966557  
Option 2 ID : 6306801966558  
Option 3 ID : 6306801966560  
Option 4 ID : 6306801966559  
Status : Answered  
Chosen Option : 2

Q.90 The distance of the centre of pressure from the free surface of the liquid is independent of the:

- Ans
- 1. density of liquid
  - 2. moment of inertia about the centre of gravity
  - 3. depth of the centre of gravity from the free surface
  - 4. area exposed to the liquid

Question ID : 630680508740  
Option 1 ID : 6306801988262  
Option 2 ID : 6306801988263  
Option 3 ID : 6306801988261  
Option 4 ID : 6306801988260  
Status : Answered  
Chosen Option : 1

Q.91 The mist lubrication system is generally used for \_\_\_\_\_.

- Ans
- 1. two stroke cycle engine
  - 2. gas engine
  - 3. air refrigeration cycle engine
  - 4. four stroke cycle engine

Question ID : 630680502667  
Option 1 ID : 6306801964251  
Option 2 ID : 6306801964253  
Option 3 ID : 6306801964252  
Option 4 ID : 6306801964250  
Status : Answered  
Chosen Option : 3

Q.92

- Ans
- 1. The equation is the steady flow energy equation for steam nozzles.
  - 2. There is no mechanical work done by the steam nozzle.
  - 3. The equation considers frictional losses in the steam nozzle.
  - 4. The flow is adiabatic in steam nozzles.

Question ID : 630680502641  
Option 1 ID : 6306801964146  
Option 2 ID : 6306801964148  
Option 3 ID : 6306801964149  
Option 4 ID : 6306801964147  
Status : Answered  
Chosen Option : 3

Q.93 The casting process that employs a wax pattern coated with a ceramic shell to make the mould, is \_\_\_\_\_.

- Ans
- 1. sand casting
  - 2. centrifugal casting
  - 3. die casting
  - 4. investment casting

Question ID : 630680503204  
Option 1 ID : 6306801966401  
Option 2 ID : 6306801966404  
Option 3 ID : 6306801966403  
Option 4 ID : 6306801966402  
Status : Answered  
Chosen Option : 4

Q.94 A complex geometry is placed in the X-Y plane. If the geometry is found to be symmetrical about the Y-axis, then which of the following is correct to calculate the centre of gravity?

- Ans
- 1. X co-ordinate is a non-zero value
  - 2. Z co-ordinate is a non-zero value
  - 3. Y co-ordinate is zero
  - 4. X co-ordinate is zero

Question ID : 630680509603  
Option 1 ID : 6306801991634  
Option 2 ID : 6306801991636  
Option 3 ID : 6306801991633  
Option 4 ID : 6306801991635  
Status : Answered  
Chosen Option : 4

**Q.95** The maximum frictional force that comes in play when a body just begins to slide over the surface of another body is called:

- Ans
- 1. kinetic friction
  - 2. static friction
  - 3. dynamic friction
  - 4. limiting friction

Question ID : 630680394585  
Option 1 ID : 6306801538626  
Option 2 ID : 6306801538628  
Option 3 ID : 6306801538627  
Option 4 ID : 6306801538629  
Status : Answered  
Chosen Option : 2

**Q.96** In a milling machine, bulky workpieces of irregular shapes are clamped directly on the milling machine table by using \_\_\_\_\_.

- Ans
- 1. swivel vise
  - 2. angle plates
  - 3. T-bolts and clamps
  - 4. V-blocks

Question ID : 630680205087  
Option 1 ID : 630680795214  
Option 2 ID : 630680795211  
Option 3 ID : 630680795212  
Option 4 ID : 630680795213  
Status : Answered  
Chosen Option : 3

**Q.97** What is the main benefit of double volute casing over single volute casing of a centrifugal pump?

- Ans
- 1. Radial load balancing
  - 2. High discharge
  - 3. Less power requirement
  - 4. High efficiency

Question ID : 630680198970  
Option 1 ID : 630680771607  
Option 2 ID : 630680771609  
Option 3 ID : 630680771608  
Option 4 ID : 630680771610  
Status : Answered  
Chosen Option : 1

**Q.98** Isochronism in a governor is desirable when \_\_\_\_\_.

- Ans
- 1. the engine operates at low speeds
  - 2. the engine operates at high speeds
  - 3. the engine is just getting started
  - 4. one speed is desired under one load

Question ID : 630680502673  
Option 1 ID : 6306801964274  
Option 2 ID : 6306801964275  
Option 3 ID : 6306801964276  
Option 4 ID : 6306801964277  
Status : Answered  
Chosen Option : 3

**Q.99** The volumetric efficiency of a single-stage reciprocating air compressor is the ratio of the:

- Ans**
- 1. swept volume to the clearance volume
  - 2. free air delivered to the displacement of the compressor
  - 3. swept volume to the effective swept volume
  - 4. displacement of the compressor to the free air delivered

Question ID : 630680181651  
Option 1 ID : 630680703848  
Option 2 ID : 630680703846  
Option 3 ID : 630680703849  
Option 4 ID : 630680703847  
Status : Answered  
Chosen Option : 2

**Q.100** When a system is undergoing constant volume process, then heat transfer is equal to:

- Ans**
- 1. change in entropy
  - 2. change in enthalpy
  - 3. work transfer
  - 4. change in internal energy

Question ID : 630680403968  
Option 1 ID : 6306801575361  
Option 2 ID : 6306801575359  
Option 3 ID : 6306801575360  
Option 4 ID : 6306801575358  
Status : Answered  
Chosen Option : 4