

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

Roll Number	
Candidate Name	
Venue Name	
Exam Date	07/06/2024
Exam Time	1:00 PM - 3:00 PM
Subject	Junior Engineer 2024 Mechanical Paper I

Section : General Intelligence and Reasoning

Q.1 Select the figure from the options that can replace the question mark (?) and complete the given pattern.

Ans

✗ 1.

✗ 2.

3.

✗ 4.

Question ID : 630680524805

Option 1 ID : 6306802051320

Option 2 ID : 6306802051319

Option 3 ID : 6306802051322

Option 4 ID : 6306802051321

Status : Answered

Chosen Option : 3

Q.2 Select the option in which the numbers share the same relationship as that shared by the given pairs of numbers.

5 : 101

10 : 201

(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. 6 : 120

2. 7 : 50

3. 6 : 121

4. 8 : 140

Question ID : 630680387171

Option 1 ID : 6306801509379

Option 2 ID : 6306801509378

Option 3 ID : 6306801509380

Option 4 ID : 6306801509381

Status : Answered

Chosen Option : 3

Q.3 In a certain code language,  
'A + B' means 'A is the brother of B',  
'A - B' means 'A is the husband of B',  
'A × B' means 'A is the sister of B' and  
'A ÷ B' means 'A is the mother of B'.  
How is B related to T if 'B + D - G ÷ P × T'?

Ans  1. Sister

2. Father's brother

3. Mother's brother

4. Sister's daughter

Question ID : 630680377672

Option 1 ID : 6306801471750

Option 2 ID : 6306801471747

Option 3 ID : 6306801471749

Option 4 ID : 6306801471748

Status : Answered

Chosen Option : 2

Q.4 In a certain code language, 'CAFE' is coded as '3795' and 'FIND' is coded as '8634'.  
What is the code for 'F' in the given code language?

Ans  1. 3

2. 4

3. 8

4. 9

Question ID : 630680388414

Option 1 ID : 6306801514174

Option 2 ID : 6306801514175

Option 3 ID : 6306801514176

Option 4 ID : 6306801514177

Status : Answered

Chosen Option : 1

Q.5 CJHF and HOMK are related to each other in a certain way based on the English alphabetical order. In the same way, SZXV and XECA are related to each other. Which of the following is related to DLTR, following the same logic?

- Ans
- 1. KQYX
  - 2. KQYW
  - 3. IQYX
  - 4. IQYW

Question ID : 630680379161  
Option 1 ID : 6306801477693  
Option 2 ID : 6306801477691  
Option 3 ID : 6306801477694  
Option 4 ID : 6306801477692  
Status : Answered  
Chosen Option : 4

Q.6 What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
AYH, BWJ, CUL, DSN, ?

- Ans
- 1. FPR
  - 2. EQP
  - 3. EPL
  - 4. EQS

Question ID : 630680378952  
Option 1 ID : 6306801476856  
Option 2 ID : 6306801476855  
Option 3 ID : 6306801476857  
Option 4 ID : 6306801476858  
Status : Answered  
Chosen Option : 2

Q.7 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 : 630680456655  
Option 1 ID : 6306801783583  
Option 2 ID : 6306801783584  
Option 3 ID : 6306801783585  
Option 4 ID : 6306801783586  
Status : Answered  
Chosen Option : 4

**Q.8** 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.)

(17, 68, 8)

(16, 72, 9)

Ans  1. (25, 140, 12)

2. (13, 78, 5)

3. (11, 109, 13)

4. (10, 105, 21)

Question ID : 630680376811

Option 1 ID : 6306801468310

Option 2 ID : 6306801468308

Option 3 ID : 6306801468307

Option 4 ID : 6306801468309

Status : Answered

Chosen Option : 4

**Q.9** Select the correct option that indicates the arrangement of the following words in a logical and meaningful order.

1. Elderly

2. Adolescent

3. Infant

4. Adult

5. Baby

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

2. 3, 5, 1, 4, 2

3. 4, 5, 1, 3, 2

4. 1, 5, 2, 3, 4

Question ID : 630680395038

Option 1 ID : 6306801540420

Option 2 ID : 6306801540421

Option 3 ID : 6306801540422

Option 4 ID : 6306801540423

Status : Answered

Chosen Option : 1

**Q.10** 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.

If Chan weighs 68 kilograms, which of the following can be the possible weight of Dolly (in kilograms)?

Ans  1. 72

2. 66

3. 71

4. 65

Question ID : 630680521124

Option 1 ID : 6306802036921

Option 2 ID : 6306802036922

Option 3 ID : 6306802036923

Option 4 ID : 6306802036924

Status : Answered

Chosen Option : 3

Q.11 Suresh starts from his home and drives 5 km towards the south. He then takes a left turn, drives 6 km, turns left, and drives 9 km. He then takes a left turn and drives 3 km and turns left, then drives 7 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. West
  - 4. North-west

Question ID : 630680376875  
Option 1 ID : 6306801468565  
Option 2 ID : 6306801468566  
Option 3 ID : 6306801468564  
Option 4 ID : 6306801468563  
Status : Answered  
Chosen Option : 2

Q.12

- Ans
- 1. 15
  - 2. 18
  - 3. 16
  - 4. 14

Question ID : 630680524411  
Option 1 ID : 6306802049743  
Option 2 ID : 6306802049746  
Option 3 ID : 6306802049744  
Option 4 ID : 6306802049745  
Status : Answered  
Chosen Option : 2

Q.13 PARK is related to QCUM in a certain way based on the English alphabetical order. In the same way, STOP is related to TVRR. To which of the following is RAMP related, following the same logic?

- Ans
- 1. SCPR
  - 2. TCPR
  - 3. SCQR
  - 4. TCQR

Question ID : 630680376878  
Option 1 ID : 6306801468577  
Option 2 ID : 6306801468578  
Option 3 ID : 6306801468576  
Option 4 ID : 6306801468575  
Status : Answered  
Chosen Option : 1

Q.14 In a certain code language, 'MADE' is coded as '3517' and 'DOGS' is coded as '2458'.  
What is the code for 'D' in the given language?

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

Question ID : 630680376548  
Option 1 ID : 6306801467261  
Option 2 ID : 6306801467260  
Option 3 ID : 6306801467259  
Option 4 ID : 6306801467262  
Status : Answered  
Chosen Option : 4

Q.15 JNHF is related to MQKI in a certain way based on the English alphabetical order. In the same way, HLF D is related to KOIG. To which of the following is FJDB related, following the same logic?

- Ans
- 1. IMGE
  - 2. IMEG
  - 3. MIGE
  - 4. MIEG

Question ID : 630680466958  
Option 1 ID : 6306801823802  
Option 2 ID : 6306801823803  
Option 3 ID : 6306801823804  
Option 4 ID : 6306801823805  
Status : Answered  
Chosen Option : 1

Q.16 What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?  
 $20 - 2 \div 4 \times 2 + 6 = ?$

- Ans
- 1. 20
  - 2. 18
  - 3. 22
  - 4. 14

Question ID : 630680377707  
Option 1 ID : 6306801471887  
Option 2 ID : 6306801471888  
Option 3 ID : 6306801471890  
Option 4 ID : 6306801471889  
Status : Answered  
Chosen Option : 2

Q.17 SPUR is related to WTYV in a certain way based on the English alphabetical order. In the same way, PMRO is related to TQVS. To which of the following is IFKH related, following the same logic?

- Ans
- 1. JMLO
  - 2. JMOL
  - 3. MJLO
  - 4. MJOL

Question ID : 630680376568  
Option 1 ID : 6306801467341  
Option 2 ID : 6306801467342  
Option 3 ID : 6306801467340  
Option 4 ID : 6306801467339  
Status : Answered  
Chosen Option : 4

Q.18 Anil starts from point A and drives 7 km towards the east. He then takes a left turn, drives 3 km, turns left, and drives 9 km. He then takes a right turn and drives 3 km. He takes a final right turn, drives 2 km, and stops at point P. How far (shortest distance) and towards which direction should he drive in order to reach point A again?  
(All turns are 90° turns only, unless specified.)

- Ans
- 1. 8 km towards the east
  - 2. 6 km towards the south
  - 3. 9 km towards the east
  - 4. 6 km towards the west

Question ID : 630680377443  
Option 1 ID : 6306801470836  
Option 2 ID : 6306801470835  
Option 3 ID : 6306801470837  
Option 4 ID : 6306801470838  
Status : Answered  
Chosen Option : 2

Q.19 6 is related to 76 following a certain logic. Following the same logic, 8 is related to 102. To which of the following is 15 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. 198
  - 2. 193
  - 3. 190
  - 4. 197

Question ID : 630680451720  
Option 1 ID : 6306801763966  
Option 2 ID : 6306801763967  
Option 3 ID : 6306801763968  
Option 4 ID : 6306801763969  
Status : Answered  
Chosen Option : 2

Q.20 What will come in place of the question mark (?) in the following equation if '+' and '÷' are interchanged and '×' and '-' are interchanged?  
 $84 + 12 \times 9 \div 13 - 21 = ?$

- Ans  1. 264  
 2. 271  
 3. 259  
 4. 273

Question ID : 630680376975  
Option 1 ID : 6306801468964  
Option 2 ID : 6306801468963  
Option 3 ID : 6306801468965  
Option 4 ID : 6306801468966  
Status : Answered  
Chosen Option : 2

Q.21 843 is related to 732 following a certain logic. Following the same logic, 632 is related to 521. To which of the following is 357 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. 240  
 2. 246  
 3. 340  
 4. 346

Question ID : 630680396898  
Option 1 ID : 6306801547660  
Option 2 ID : 6306801547661  
Option 3 ID : 6306801547662  
Option 4 ID : 6306801547663  
Status : Answered  
Chosen Option : 2

Q.22 What should come in place of the question mark (?) in the given series?  
23, 26, 31, 38, 49, ?

- Ans  1. 60  
 2. 61  
 3. 59  
 4. 62

Question ID : 630680376727  
Option 1 ID : 6306801467973  
Option 2 ID : 6306801467972  
Option 3 ID : 6306801467974  
Option 4 ID : 6306801467971  
Status : Answered  
Chosen Option : 4

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 'QS 7' related following the same logic?

- Ans
- 1. SY 343
  - 2. TU 343
  - 3. TV 343
  - 4. SU 343

Question ID : 630680377768  
Option 1 ID : 6306801472132  
Option 2 ID : 6306801472133  
Option 3 ID : 6306801472131  
Option 4 ID : 6306801472134  
Status : Answered  
Chosen Option : 3

Q.24 In a certain code language, 'KNOT' is coded as '3618' and 'NOTE' is coded as '6438'. What is the code for 'E' in the given code language?

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

Question ID : 630680377755  
Option 1 ID : 6306801472079  
Option 2 ID : 6306801472080  
Option 3 ID : 6306801472081  
Option 4 ID : 6306801472082  
Status : Answered  
Chosen Option : 3

Q.25 Select the option in which the given figure is embedded (rotation is NOT allowed).

Ans

✗ 1.

✗ 2.

✓ 3.

✗ 4.

Question ID : 630680422242  
Option 1 ID : 6306801647404  
Option 2 ID : 6306801647405  
Option 3 ID : 6306801647406  
Option 4 ID : 6306801647407  
Status : Answered  
Chosen Option : 3

Q.26 What should come in place of the question mark (?) in the given series?  
115, 91, 70, 52, 37, ?

Ans ✗ 1. 21

✓ 2. 25

✗ 3. 27

✗ 4. 23

Question ID : 630680380560  
Option 1 ID : 6306801483227  
Option 2 ID : 6306801483230  
Option 3 ID : 6306801483228  
Option 4 ID : 6306801483229  
Status : Answered  
Chosen Option : 2

Q.27 Select the option in which the given figure is embedded (rotation is NOT allowed).

Ans

1.

2.

3.

4.

Question ID : 630680524486  
Option 1 ID : 6306802050046  
Option 2 ID : 6306802050043  
Option 3 ID : 6306802050044  
Option 4 ID : 6306802050045  
Status : Answered  
Chosen Option : 3

Q.28 The position(s) of how many letters will remain unchanged if each of the letters in the word 'BLANKET' is arranged in alphabetical order?

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

Question ID : 630680375961  
Option 1 ID : 6306801464915  
Option 2 ID : 6306801464918  
Option 3 ID : 6306801464917  
Option 4 ID : 6306801464916  
Status : Answered  
Chosen Option : 2

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

FLOY, JPSC, NTWG, RXAK, ?

- Ans
- 1. VBG T
  - 2. VBEO
  - 3. VOED
  - 4. VOBE

Question ID : 630680469537  
Option 1 ID : 6306801833915  
Option 2 ID : 6306801833916  
Option 3 ID : 6306801833917  
Option 4 ID : 6306801833918  
Status : Answered  
Chosen Option : 2

Q.30 What should come in place of '?' in the given series?  
147, 206, 124, 183, 101, 160, ?

- Ans
- 1. 78
  - 2. 61
  - 3. 40
  - 4. 56

Question ID : 630680378806  
Option 1 ID : 6306801476272  
Option 2 ID : 6306801476273  
Option 3 ID : 6306801476274  
Option 4 ID : 6306801476271  
Status : Answered  
Chosen Option : 1

**Q.31** Q, R, S, T, U, and V are sitting around a circular table, facing the centre (not necessarily in the same order) . S sits second to the left of R. Q sits third to the right of S. T is not an immediate neighbour of S. U sits to the immediate left of S.  
How many people are sitting between U and R when counted from the right of R?

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

Question ID : 630680377643  
Option 1 ID : 6306801471633  
Option 2 ID : 6306801471634  
Option 3 ID : 6306801471632  
Option 4 ID : 6306801471631  
Status : Answered  
Chosen Option : 1

**Q.32** 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 husband of B',  
'A ÷ B' means 'A is the father of B'.  
How is Z related to V if 'Z ÷ X - C ÷ V × B + N'?

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

Question ID : 630680378721  
Option 1 ID : 6306801475933  
Option 2 ID : 6306801475934  
Option 3 ID : 6306801475932  
Option 4 ID : 6306801475931  
Status : Answered  
Chosen Option : 4

**Q.33** 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.)

(47, 1, 23)  
(58, 4, 27)

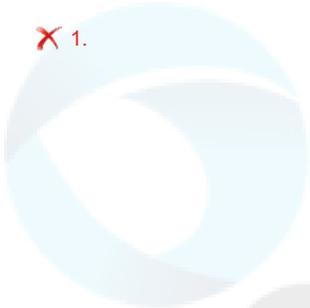
- Ans**
- 1. (74, 18, 28)
  - 2. (36, 30, 5)
  - 3. (50, 14, 16)
  - 4. (64, 5, 12)

Question ID : 630680376819  
Option 1 ID : 6306801468340  
Option 2 ID : 6306801468341  
Option 3 ID : 6306801468342  
Option 4 ID : 6306801468339  
Status : Answered  
Chosen Option : 1

Q.34 Select the option in which the given figure is embedded (rotation is NOT allowed).

Ans

1.



2.

3.

4.

Question ID : 630680524474  
Option 1 ID : 6306802049997  
Option 2 ID : 6306802049996  
Option 3 ID : 6306802049995  
Option 4 ID : 6306802049998  
Status : Answered  
Chosen Option : 2

**Q.35** 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 roads are speed-breakers. No speed-breaker is a home.

**Conclusion 1:** Some roads are homes.

**Conclusion 2:** Some homes are speed-breakers.

- Ans**
- 1. Only conclusion (2) follows
  - 2. Both conclusion (1) and conclusion (2) follow
  - 3. Only conclusion (1) follows
  - 4. None of the conclusions follow

Question ID : 630680381550

Option 1 ID : 6306801487132

Option 2 ID : 6306801487133

Option 3 ID : 6306801487131

Option 4 ID : 6306801487134

Status : Answered

Chosen Option : 4

Q.36 Select the option figure that will replace the question mark (?) in the figure given below to complete the pattern.

Ans

✗ 1.

✓ 2.

✗ 3.

✗ 4.

Question ID : 630680525605  
Option 1 ID : 6306802054507  
Option 2 ID : 6306802054505  
Option 3 ID : 6306802054504  
Option 4 ID : 6306802054506  
Status : Answered  
Chosen Option : 2

Q.37 What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
SJF, NEA, IZV, DUQ, ?

Ans ✓ 1. YPL

✗ 2. YQL

✗ 3. XPL

✗ 4. XPM

Question ID : 630680376693  
Option 1 ID : 6306801467838  
Option 2 ID : 6306801467835  
Option 3 ID : 6306801467836  
Option 4 ID : 6306801467837  
Status : Answered  
Chosen Option : 1

Q.38 The position of how many letters will remain unchanged if each of the letters in the word 'SALIENT' is arranged in the English alphabetical order?

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

Question ID : 630680404433  
Option 1 ID : 6306801577232  
Option 2 ID : 6306801577233  
Option 3 ID : 6306801577234  
Option 4 ID : 6306801577235  
Status : Answered  
Chosen Option : 2

Q.39 CF 9 is related to IL 21 in a certain way. In the same way, MP 29 is related to SV 41. To which of the following is KN 25 related, following the same logic?

- Ans
- 1. QT 37
  - 2. GJ 18
  - 3. QS 37
  - 4. LJ 18

Question ID : 630680375828  
Option 1 ID : 6306801464384  
Option 2 ID : 6306801464383  
Option 3 ID : 6306801464385  
Option 4 ID : 6306801464386  
Status : Answered  
Chosen Option : 1

Q.40 What should come in place of the question mark (?) in the given series based on the English alphabetical order?  
DMU, HQY, LUC, PYG, TCK, ?

- Ans
- 1. TDL
  - 2. XGO
  - 3. YHL
  - 4. UBI

Question ID : 630680379361  
Option 1 ID : 6306801478488  
Option 2 ID : 6306801478489  
Option 3 ID : 6306801478490  
Option 4 ID : 6306801478487  
Status : Answered  
Chosen Option : 2

**Q.41** 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: Some machines are shrugs. All machines are bins. No shrug is a cloth.

Conclusion (I): No cloth is a machine.

Conclusion (II): At least some shrugs are bins.

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

Question ID : 630680376525

Option 1 ID : 6306801467167

Option 2 ID : 6306801467169

Option 3 ID : 6306801467170

Option 4 ID : 6306801467168

Status : Answered

Chosen Option : 4

**Q.42** Seven people - S, O, L, D, I, E, and R - are sitting around a circular table, facing the centre (not necessarily in the same order). O sits fourth to the left of E and R sits third to the right of O. L sits to the immediate left of R and to the immediate right of D. S sits second to the right of R.

Who are the immediate neighbours of I?

- Ans
- 1. S and E
  - 2. O and D
  - 3. O and L
  - 4. S and O

Question ID : 630680377624

Option 1 ID : 6306801471555

Option 2 ID : 6306801471557

Option 3 ID : 6306801471558

Option 4 ID : 6306801471556

Status : Answered

Chosen Option : 4

**Q.43** What should come in place of ? in the given series based on the English alphabetical order?

BLH, EKF, HJD, KIB, ?

- Ans
- 1. NHZ
  - 2. MEX
  - 3. MFX
  - 4. OGY

Question ID : 630680375974

Option 1 ID : 6306801464967

Option 2 ID : 6306801464968

Option 3 ID : 6306801464970

Option 4 ID : 6306801464969

Status : Answered

Chosen Option : 1

**Q.44** This question consists of a pair of words that have a certain relationship to each other. Select the pair that 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.)

Pressure : Pascal

- Ans
- 1. Force : Candela
  - 2. Electric Potential : Volt
  - 3. Sound : Watt
  - 4. Frequency : Ohm

Question ID : 630680571477

Option 1 ID : 6306802234945

Option 2 ID : 6306802234946

Option 3 ID : 6306802234947

Option 4 ID : 6306802234948

Status : Answered

Chosen Option : 2

**Q.45** Select the pair in which the numbers are related to each other in the same way as are the numbers of the given pairs.

(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.)

(297, 466)

(342, 511)

- Ans
- 1. (194, 353)
  - 2. (116, 292)
  - 3. (189, 348)
  - 4. (225, 394)

Question ID : 630680392062

Option 1 ID : 6306801528624

Option 2 ID : 6306801528625

Option 3 ID : 6306801528623

Option 4 ID : 6306801528622

Status : Answered

Chosen Option : 4

**Q.46** What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$61 - 45 \times 15 + 5 \div 9 = ?$$

- Ans
- 1. 4
  - 2. 14
  - 3. 19
  - 4. 9

Question ID : 630680377615

Option 1 ID : 6306801471521

Option 2 ID : 6306801471519

Option 3 ID : 6306801471522

Option 4 ID : 6306801471520

Status : Answered

Chosen Option : 3

Q.47 In a certain code language, 'CARE' is coded as '3195' and 'HARE' is coded as '9341'.  
What is the code for 'H' in that language?

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

Question ID : 630680376411  
Option 1 ID : 6306801466714  
Option 2 ID : 6306801466712  
Option 3 ID : 6306801466711  
Option 4 ID : 6306801466713  
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?  
CEH, FHK, IKN, LNQ, ?

- Ans  1. OQS  
 2. OQT  
 3. PQT  
 4. PQS

Question ID : 630680394867  
Option 1 ID : 6306801539755  
Option 2 ID : 6306801539754  
Option 3 ID : 6306801539753  
Option 4 ID : 6306801539752  
Status : Answered  
Chosen Option : 2

Q.49 Select the correct option that indicates the arrangement of the following words in a logical and meaningful order.

1. Eiffel Tower
2. Europe
3. Paris
4. Earth
5. France

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

Question ID : 630680565825  
Option 1 ID : 6306802212251  
Option 2 ID : 6306802212249  
Option 3 ID : 6306802212250  
Option 4 ID : 6306802212248  
Status : Answered  
Chosen Option : 2

Q.50 If A means +, B means -, C means × and D means ÷, then what will come in place of the question mark (?) in the following equation?

$$40 \text{ B } 6 \text{ C } 7 \text{ A } 30 \text{ D } 5 = ?$$

Ans  1. 4

2. 2

3. 5

4. 3

Question ID : 630680388273

Option 1 ID : 6306801513616

Option 2 ID : 6306801513614

Option 3 ID : 6306801513617

Option 4 ID : 6306801513615

Status : Answered

Chosen Option : 1

Section : General Awareness

Q.1 The equipment used to record the intensity of an earthquake is \_\_\_\_\_.

Ans  1. seismograph

2. calorimeter

3. pyrometer

4. barometer

Question ID : 630680564465

Option 1 ID : 6306802206789

Option 2 ID : 6306802206787

Option 3 ID : 6306802206788

Option 4 ID : 6306802206790

Status : Answered

Chosen Option : 1

Q.2 Who is the writer of Indian president's biography 'Droupadi Murmu : From Tribal Hinterlands to Raisina Hill'?

Ans  1. Kamala Surayya

2. Kasturi Ray

3. Phoolan Devi

4. Mary Kom

Question ID : 630680493448

Option 1 ID : 6306801927531

Option 2 ID : 6306801927532

Option 3 ID : 6306801927533

Option 4 ID : 6306801927534

Status : Answered

Chosen Option : 1

Q.3 Which of the following is NOT a major river basin in India?

- Ans
- 1. Narmada
  - 2. Tapi
  - 3. Krishna
  - 4. Kalindi

Question ID : 630680511004  
Option 1 ID : 6306801997147  
Option 2 ID : 6306801997149  
Option 3 ID : 6306801997146  
Option 4 ID : 6306801997148  
Status : Answered  
Chosen Option : 4

Q.4 If the government decides to privatise a major public sector industry, what might be an unintended consequence?

- Ans
- 1. Reduction in corruption
  - 2. Immediate increase in public revenue
  - 3. Potential monopolistic practices
  - 4. Enhancement of operational efficiency

Question ID : 630680543955  
Option 1 ID : 6306802126610  
Option 2 ID : 6306802126607  
Option 3 ID : 6306802126609  
Option 4 ID : 6306802126608  
Status : Answered  
Chosen Option : 3

Q.5 Which of the following is a shortcut key to undo the last action in many word processors?

- Ans
- 1. Ctrl + Z
  - 2. Ctrl + X
  - 3. Ctrl + C
  - 4. Ctrl + V

Question ID : 630680571764  
Option 1 ID : 6306802235960  
Option 2 ID : 6306802235961  
Option 3 ID : 6306802235962  
Option 4 ID : 6306802235963  
Status : Answered  
Chosen Option : 1

Q.6 Which type of cell lacks a membrane-bound nucleus?

- Ans
- 1. Prokaryotic cell
  - 2. Eukaryotic cell
  - 3. Animal cell
  - 4. Plant cell

Question ID : 630680411628  
Option 1 ID : 6306801605347  
Option 2 ID : 6306801605348  
Option 3 ID : 6306801605349  
Option 4 ID : 6306801605350  
Status : Answered  
Chosen Option : 1

**Q.7** How many fundamental duties of citizens have been enumerated by the 42nd Amendment of the Constitution, adopted in 1976?

Ans  1. 9

2. 10

3. 11

4. 13

Question ID : 630680493463

Option 1 ID : 6306801927591

Option 2 ID : 6306801927592

Option 3 ID : 6306801927593

Option 4 ID : 6306801927594

Status : Answered

Chosen Option : 3

**Q.8** According to the Census 2011 of India, arrange the following metropolitan cities on the basis of population in ascending order?

- A. Delhi
- B. Mumbai
- C. Kolkata

Ans  1. B, C, A

2. C, A, B

3. A, B, C

4. B, A, C

Question ID : 630680477225

Option 1 ID : 6306801864061

Option 2 ID : 6306801864062

Option 3 ID : 6306801864063

Option 4 ID : 6306801864064

Status : Answered

Chosen Option : 2

**Q.9** Through which of the following body parts does food need to pass before reaching the intestines?

Ans  1. Windpipe --> Food pipe

2. Mouth --> Rectum

3. Oesophagus --> Stomach

4. Stomach --> Rectum

Question ID : 630680539639

Option 1 ID : 6306802109681

Option 2 ID : 6306802109682

Option 3 ID : 6306802109683

Option 4 ID : 6306802109684

Status : Answered

Chosen Option : 3

Q.10 Food rich in carbohydrates (like potatoes) and those rich in fats (like butter) are also known as \_\_\_\_\_.

Ans  1. Energy-Giving Food

2. Main Course

3. Unsafe Food

4. Fast Food

Question ID : 630680539583

Option 1 ID : 6306802109461

Option 2 ID : 6306802109462

Option 3 ID : 6306802109463

Option 4 ID : 6306802109464

Status : Answered

Chosen Option : 1

Q.11 The National Waterway (NW) – 3 is located in which of the following states?

Ans  1. Kerala

2. Gujarat

3. Maharashtra

4. Andhra Pradesh

Question ID : 630680510975

Option 1 ID : 6306801997030

Option 2 ID : 6306801997031

Option 3 ID : 6306801997032

Option 4 ID : 6306801997033

Status : Not Answered

Chosen Option : --

Q.12 In 2010, in which Indian state did the crisis of microfinance happen?

Ans  1. Karnataka

2. Tamil Nadu

3. Andhra Pradesh

4. Maharashtra

Question ID : 630680402049

Option 1 ID : 6306801567896

Option 2 ID : 6306801567897

Option 3 ID : 6306801567898

Option 4 ID : 6306801567899

Status : Not Answered

Chosen Option : --

Q.13 The concept of 'Standard Urban Area (SUA)' was introduced in which census of India?

Ans  1. Census 1971

2. Census 1961

3. Census 1951

4. Census 1981

Question ID : 630680477207

Option 1 ID : 6306801863993

Option 2 ID : 6306801863994

Option 3 ID : 6306801863995

Option 4 ID : 6306801863996

Status : Not Answered

Chosen Option : --

**Q.14** A nonstop train moving on a straight track with a uniform acceleration passed station A at a velocity of 'u' and reached the next station B at a velocity of '5u'. Its average velocity between the given stations is:

- Ans
- 1. 2u
  - 2. 2.5u
  - 3. 3u
  - 4. 4u

Question ID : 630680419680  
Option 1 ID : 6306801637213  
Option 2 ID : 6306801637214  
Option 3 ID : 6306801637215  
Option 4 ID : 6306801637216  
Status : Answered  
Chosen Option : 3

**Q.15** What is the medical term for high blood pressure?

- Ans
- 1. Hypoglycemia
  - 2. Hypertension
  - 3. Hypotension
  - 4. Hyperglycemia

Question ID : 630680701423  
Option 1 ID : 6306802747630  
Option 2 ID : 6306802747631  
Option 3 ID : 6306802747629  
Option 4 ID : 6306802747632  
Status : Answered  
Chosen Option : 2

**Q.16** In September 2023, Skill India Mission introduced a scheme that aims to spread awareness at grass root level about free skill training programmes for youth through robust skill training. What is the name of that scheme?

- Ans
- 1. Skills on the Go
  - 2. Skills on Wheels
  - 3. Skills on the Move
  - 4. Skill Bus

Question ID : 630680479130  
Option 1 ID : 6306801871473  
Option 2 ID : 6306801871474  
Option 3 ID : 6306801871475  
Option 4 ID : 6306801871476  
Status : Not Answered  
Chosen Option : --

**Q.17** Select the correct arrangement of the parts of the food canal in humans from the starting point to the ending point.

- Ans  1. The buccal cavity ---> Oesophagus ---> Stomach ---> Large intestine ---> Small intestine ---> Rectum ---> Anus
2. The buccal cavity ---> Oesophagus ---> Stomach ---> Small intestine ---> Large intestine ---> Anus ---> Rectum
3. The buccal cavity ---> Oesophagus ---> Stomach ---> Large intestine ---> Small intestine ---> Anus ---> Rectum
4. The buccal cavity ---> Oesophagus ---> Stomach ---> Small intestine ---> Large intestine ---> Rectum ---> Anus

Question ID : 630680403185  
Option 1 ID : 6306801572261  
Option 2 ID : 6306801572262  
Option 3 ID : 6306801572263  
Option 4 ID : 6306801572264  
Status : Answered  
Chosen Option : 4

**Q.18** Which Indian state passed the Right to Health (RTH) bill, which guarantees access to equitable healthcare services for all patients in March 2023?

- Ans  1. Gujarat
2. Maharashtra
3. Rajasthan
4. Tamil Nadu

Question ID : 630680513810  
Option 1 ID : 6306802007868  
Option 2 ID : 6306802007867  
Option 3 ID : 6306802007866  
Option 4 ID : 6306802007865  
Status : Answered  
Chosen Option : 3

**Q.19** Calcium hydroxide is the chemical name of which of the following saturated aqueous solutions?

- Ans  1. Hard water
2. Carbonated water
3. Black Water
4. Limewater

Question ID : 630680403001  
Option 1 ID : 6306801571578  
Option 2 ID : 6306801571575  
Option 3 ID : 6306801571576  
Option 4 ID : 6306801571577  
Status : Answered  
Chosen Option : 4

**Q.20** Which of the following states has the largest legislative assembly (in terms of number of members) in the country as on 30<sup>th</sup> September 2023?

- Ans
- 1. Rajasthan
  - 2. Tamil Nadu
  - 3. Madhya Pradesh
  - 4. Uttar Pradesh

Question ID : 630680407819  
Option 1 ID : 6306801590214  
Option 2 ID : 6306801590215  
Option 3 ID : 6306801590216  
Option 4 ID : 6306801590217  
Status : Not Answered  
Chosen Option : --

**Q.21** All the living and non-living things in a particular area constitute the \_\_\_\_\_ of the area.

- Ans
- 1. Life Circle
  - 2. Ecosystem
  - 3. Species
  - 4. Food Web

Question ID : 630680539335  
Option 1 ID : 6306802108470  
Option 2 ID : 6306802108471  
Option 3 ID : 6306802108468  
Option 4 ID : 6306802108469  
Status : Answered  
Chosen Option : 2

**Q.22** Which white powder, ubiquitous in modern kitchens, combines with acid to produce carbon dioxide?

- Ans
- 1. Sodium phosphate
  - 2. Sodium fluoride
  - 3. Sodium nitrate
  - 4. Sodium bicarbonate

Question ID : 630680404439  
Option 1 ID : 6306801577258  
Option 2 ID : 6306801577257  
Option 3 ID : 6306801577259  
Option 4 ID : 6306801577256  
Status : Answered  
Chosen Option : 4

Q.23 Which of the following Hindustani ragas corresponds to the 'Mohanam Ragam' of Carnatic music?

- Ans  1. Bhoop  
 2. Aadi  
 3. Zilla  
 4. Bagkauns

Question ID : 63068078057  
Option 1 ID : 630680302289  
Option 2 ID : 630680302290  
Option 3 ID : 630680302292  
Option 4 ID : 630680302291  
Status : Not Answered  
Chosen Option : --

Q.24 If 'G', 'M' and 'R' represent the universal gravitation constant, mass of the earth and radius of the earth, respectively, then which of the following is the correct expression for the acceleration due to gravity (g) on the surface of the earth?

- Ans  1.  $GM/R^2$   
 2.  $GM^2/R$   
 3.  $GM/R$   
 4.  $GMR^2$

Question ID : 630680406262  
Option 1 ID : 6306801584275  
Option 2 ID : 6306801584272  
Option 3 ID : 6306801584273  
Option 4 ID : 6306801584274  
Status : Answered  
Chosen Option : 1

Q.25 According to the census of India 2011, which of the following states has the highest density of population per square kilometre?

- Ans  1. Uttar Pradesh  
 2. Maharashtra  
 3. West Bengal  
 4. Odisha

Question ID : 630680477179  
Option 1 ID : 6306801863885  
Option 2 ID : 6306801863886  
Option 3 ID : 6306801863887  
Option 4 ID : 6306801863888  
Status : Answered  
Chosen Option : 3

**Q.26** Rama experiences a drop in temperature as she is getting higher and higher in the mountains while trekking. What could be the cause of this?

- Ans
- 1. Less water
  - 2. Lower air pressure at altitude
  - 3. Higher air pressure at altitude
  - 4. Rama's fatigue

Question ID : 630680546823  
Option 1 ID : 6306802137858  
Option 2 ID : 6306802137860  
Option 3 ID : 6306802137859  
Option 4 ID : 6306802137861  
Status : Answered  
Chosen Option : 2

**Q.27** Karnam Malleshwari won a bronze medal at which Olympic games?

- Ans
- 1. 2000 Sydney
  - 2. 2004 Athens
  - 3. 2008 Beijing
  - 4. 2012 London

Question ID : 630680435732  
Option 1 ID : 6306801700849  
Option 2 ID : 6306801700850  
Option 3 ID : 6306801700851  
Option 4 ID : 6306801700852  
Status : Not Answered  
Chosen Option : --

**Q.28** In 1527, battle of Khanwa fought between Babur and ruler of Mewar \_\_\_\_\_ .

- Ans
- 1. Prithviraj
  - 2. Rana Pratap
  - 3. Rana Sanga
  - 4. Rana Mewari

Question ID : 630680511631  
Option 1 ID : 6306801999647  
Option 2 ID : 6306801999646  
Option 3 ID : 6306801999649  
Option 4 ID : 6306801999648  
Status : Answered  
Chosen Option : 3

**Q.29** Which part of the cell is responsible for generating the primary energy molecule ATP in eukaryotic animals?

- Ans
- 1. Mitochondria
  - 2. Endoplasmic reticulum
  - 3. Cell wall
  - 4. Vacuoles

Question ID : 630680403313  
Option 1 ID : 6306801572763  
Option 2 ID : 6306801572765  
Option 3 ID : 6306801572764  
Option 4 ID : 6306801572762  
Status : Answered  
Chosen Option : 1

Q.30 The first Anglo-Afghan war took place between 1838 - \_\_\_\_\_ .

- Ans  1. 1840  
 2. 1842  
 3. 1844  
 4. 1841

Question ID : 630680511482  
Option 1 ID : 6306801999050  
Option 2 ID : 6306801999052  
Option 3 ID : 6306801999053  
Option 4 ID : 6306801999051  
Status : Answered  
Chosen Option : 2

Q.31 For strengthening the fundamental duties, the Verma Committee identified a few existing acts by which a proper implementation of such duties can be accomplished. Which of the following was NOT referred by him?

- Ans  1. Representation of People Act, 1951  
 2. Protection of Civil Rights Act, 1955  
 3. Unlawful Activities Protection Act, 1967  
 4. Wildlife Segregation Act, 1970

Question ID : 630680615088  
Option 1 ID : 6306802407020  
Option 2 ID : 6306802407021  
Option 3 ID : 6306802407022  
Option 4 ID : 6306802407023  
Status : Answered  
Chosen Option : 4

Q.32 Which minister was in the news to launch the country's first crash testing programme 'Bharat NCAP', on 22 August 2023?

- Ans  1. Nitin Gadkari  
 2. Raj Nath Singh  
 3. Amit Shah  
 4. Ashwini Vaishnaw

Question ID : 630680412669  
Option 1 ID : 6306801609499  
Option 2 ID : 6306801609500  
Option 3 ID : 6306801609501  
Option 4 ID : 6306801609502  
Status : Answered  
Chosen Option : 1

**Q.33 Why is there a need to encourage Indian farmers to switch to sustainable crops / farming systems?**

- Ans
- 1. To increase upfront costs
  - 2. To meet the current calorie needs of the population
  - 3. To address environmental damage and degradation of ecosystem services
  - 4. To reduce the use of technology in agriculture

Question ID : 630680488131  
Option 1 ID : 6306801906583  
Option 2 ID : 6306801906584  
Option 3 ID : 6306801906585  
Option 4 ID : 6306801906586  
Status : Answered  
Chosen Option : 3

**Q.34 What is the full form of GST?**

- Ans
- 1. Gifts and Sale Tax
  - 2. Goods and Services Tax
  - 3. Goods and Sale Tax
  - 4. Gifts and Services Tax

Question ID : 630680511442  
Option 1 ID : 6306801998901  
Option 2 ID : 6306801998898  
Option 3 ID : 6306801998900  
Option 4 ID : 6306801998899  
Status : Answered  
Chosen Option : 2

**Q.35 5 stones were dropped from the top of a building. They all fell to the ground in straight lines. What can be said about their motion?**

- Ans
- 1. They had rectilinear motion
  - 2. They had curvilinear motion
  - 3. They had slow motion
  - 4. They had gravity free motion

Question ID : 630680401746  
Option 1 ID : 6306801566754  
Option 2 ID : 6306801566755  
Option 3 ID : 6306801566756  
Option 4 ID : 6306801566757  
Status : Answered  
Chosen Option : 1

**Q.36 Who among the following eminent musicians was born in Bihar?**

- Ans
- 1. Ustad Bismillah Khan
  - 2. Ustad Zakir Hussain
  - 3. Pandit Shivkumar Sharma
  - 4. Pandit Ravi Shankar

Question ID : 630680436911  
Option 1 ID : 6306801705575  
Option 2 ID : 6306801705574  
Option 3 ID : 6306801705573  
Option 4 ID : 6306801705576  
Status : Not Answered  
Chosen Option : --

**Q.37** What is the function of the endoplasmic reticulum (ER)?

- Ans
- 1. DNA replication
  - 2. Protein synthesis
  - 3. Energy production
  - 4. Lipid synthesis and detoxification

Question ID : 630680540557  
Option 1 ID : 6306802113305  
Option 2 ID : 6306802113303  
Option 3 ID : 6306802113306  
Option 4 ID : 6306802113304  
Status : Answered  
Chosen Option : 2

**Q.38** When and where was the Veda Samaj, inspired by the Brahmo Samaj, established?

- Ans
- 1. Bombay 1867
  - 2. Lahore 1875
  - 3. Calcutta 1830
  - 4. Madras 1864

Question ID : 630680511588  
Option 1 ID : 6306801999475  
Option 2 ID : 6306801999477  
Option 3 ID : 6306801999476  
Option 4 ID : 6306801999474  
Status : Not Answered  
Chosen Option : --

**Q.39** Which of the following is NOT one of the five outlined pillars of Atmanirbhar Bharat?

- Ans
- 1. Economy
  - 2. Infrastructure
  - 3. Demand
  - 4. Resilience

Question ID : 630680481009  
Option 1 ID : 6306801878620  
Option 2 ID : 6306801878621  
Option 3 ID : 6306801878622  
Option 4 ID : 6306801878623  
Status : Not Answered  
Chosen Option : --

**Q.40** Sometimes when heated, solid changes into liquid at normal atmospheric pressure on reaching its melting point. What is the name of the amount of heat required?

- Ans
- 1. Latent heat of diffusion
  - 2. Latent heat of fusion
  - 3. Latent melting point
  - 4. Latent change of state point

Question ID : 630680402653  
Option 1 ID : 6306801570211  
Option 2 ID : 6306801570212  
Option 3 ID : 6306801570213  
Option 4 ID : 6306801570214  
Status : Answered  
Chosen Option : 2

**Q.41** On 26 July 2023, Tenzing Yangki created history in Arunachal Pradesh by achieving a prestigious UPSC rank and becoming the state's first female \_\_\_\_\_.

- Ans**
- 1. India Police Service Officer
  - 2. Indian Administrative Service Officer
  - 3. Education Commissioner
  - 4. Revenue Officer

Question ID : 630680804275  
Option 1 ID : 6306803150831  
Option 2 ID : 6306803150832  
Option 3 ID : 6306803150834  
Option 4 ID : 6306803150833  
Status : Not Answered  
Chosen Option : --

**Q.42** What balances the atmospheric pressure with equal force so that animals do not crumble under the high pressure exerted on them by the atmosphere?

- Ans**
- 1. Moon's gravitational pull
  - 2. Pressure because of sunlight
  - 3. Energy produced by the food consumed
  - 4. Blood Pressure

Question ID : 630680401765  
Option 1 ID : 6306801566826  
Option 2 ID : 6306801566827  
Option 3 ID : 6306801566828  
Option 4 ID : 6306801566829  
Status : Answered  
Chosen Option : 4

**Q.43** 'Ama Odisha Nabin Odisha' scheme was implemented by which department in July 2023 by Odisha Government?

- Ans**
- 1. Health and Family Welfare Department
  - 2. Housing and Urban Development
  - 3. Panchayati Raj and Drinking Water Department
  - 4. General Administration Department

Question ID : 630680411160  
Option 1 ID : 6306801603396  
Option 2 ID : 6306801603397  
Option 3 ID : 6306801603398  
Option 4 ID : 6306801603399  
Status : Answered  
Chosen Option : 2

**Q.44** The Palamu plateau is located in which of the following states?

- Ans**
- 1. Tripura
  - 2. Karnataka
  - 3. Telangana
  - 4. Jharkhand

Question ID : 630680511005  
Option 1 ID : 6306801997151  
Option 2 ID : 6306801997150  
Option 3 ID : 6306801997153  
Option 4 ID : 6306801997152  
Status : Not Answered  
Chosen Option : --

**Q.45** Who among the following was one of the co-founders of the Swaraj Party within the Congress to argue for a return to council politics?

- Ans
- 1. Gopal Krishna Gokhale
  - 2. Chittaranjan Das
  - 3. Rabindranath Tagore
  - 4. Mahatma Gandhi

Question ID : 630680511623  
Option 1 ID : 6306801999617  
Option 2 ID : 6306801999616  
Option 3 ID : 6306801999615  
Option 4 ID : 6306801999614  
Status : Not Answered  
Chosen Option : --

**Q.46** In which city is the Arun Jaitley Stadium located?

- Ans
- 1. New Delhi
  - 2. Punjab
  - 3. Mumbai
  - 4. Chennai

Question ID : 630680436045  
Option 1 ID : 6306801702117  
Option 2 ID : 6306801702118  
Option 3 ID : 6306801702119  
Option 4 ID : 6306801702120  
Status : Not Answered  
Chosen Option : --

**Q.47** In which year did Louis Pasteur discover that yeast is responsible for producing alcohol from sugar?

- Ans
- 1. 1830
  - 2. 1857
  - 3. 1891
  - 4. 1904

Question ID : 630680404445  
Option 1 ID : 6306801577280  
Option 2 ID : 6306801577281  
Option 3 ID : 6306801577282  
Option 4 ID : 6306801577283  
Status : Not Answered  
Chosen Option : --

**Q.48** Which of the following set of Articles of the Indian Constitution guarantees different types of freedoms to its citizens?

- Ans
- 1. Articles 14 – 19
  - 2. Articles 19 – 22
  - 3. Articles 25 – 30
  - 4. Articles 32 – 35

Question ID : 630680493491  
Option 1 ID : 6306801927702  
Option 2 ID : 6306801927703  
Option 3 ID : 6306801927704  
Option 4 ID : 6306801927705  
Status : Answered  
Chosen Option : 2

**Q.49** How does the formation of igneous rocks occur?

- Ans
- 1. Formation through compression
  - 2. Formation through volcanic activity
  - 3. Formation through weathering
  - 4. Formation through sedimentation

Question ID : 630680615260  
Option 1 ID : 6306802407714  
Option 2 ID : 6306802407715  
Option 3 ID : 6306802407716  
Option 4 ID : 6306802407717  
Status : Answered  
Chosen Option : 2

**Q.50** What are 'Bullets' in Microsoft Word?

- Ans
- 1. Characters used for decoration
  - 2. Small dots, squares, dashes, or graphics preceding text
  - 3. Large circles indicating importance
  - 4. Highlighted text

Question ID : 630680670146  
Option 1 ID : 6306802624160  
Option 2 ID : 6306802624161  
Option 3 ID : 6306802624162  
Option 4 ID : 6306802624163  
Status : Answered  
Chosen Option : 2

Section : General Engineering Mechanical

**Q.1** The ignition coil of an IC engine stores the energy in its \_\_\_\_\_.

- Ans
- 1. resistor
  - 2. magnetic field
  - 3. capacitor
  - 4. electric field

Question ID : 630680502675  
Option 1 ID : 6306801964285  
Option 2 ID : 6306801964283  
Option 3 ID : 6306801964284  
Option 4 ID : 6306801964282  
Status : Answered  
Chosen Option : 3

Q.2 The pressure, which is measured with reference to absolute vacuum pressure is called:

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

Question ID : 630680508640  
Option 1 ID : 6306801987861  
Option 2 ID : 6306801987862  
Option 3 ID : 6306801987860  
Option 4 ID : 6306801987863  
Status : Answered  
Chosen Option : 4

Q.3 In case of a flat pivot bearing, which of the following options is correct about the sliding friction?

- Ans
- 1. The sliding friction consideration is along the length of the shaft which is inside the bearing.
  - 2. The sliding friction consideration is along the vertical curved surface of contact between the pivot and the shaft.
  - 3. There is no sliding friction between the pivot and the shaft.
  - 4. The sliding friction consideration is along the flat surface of contact between the pivot and the shaft.

Question ID : 630680509137  
Option 1 ID : 6306801989845  
Option 2 ID : 6306801989844  
Option 3 ID : 6306801989846  
Option 4 ID : 6306801989843  
Status : Answered  
Chosen Option : 2

Q.4 Coefficient of discharge ( $C_d$ ) of a flow-measuring device is defined as the \_\_\_\_\_ .

- Ans
- 1. ratio of theoretical discharge to actual discharge
  - 2. ratio of actual discharge to theoretical discharge
  - 3. product of actual discharge and theoretical discharge
  - 4. product of cross-sectional area and velocity

Question ID : 630680193042  
Option 1 ID : 630680748706  
Option 2 ID : 630680748705  
Option 3 ID : 630680748707  
Option 4 ID : 630680748708  
Status : Answered  
Chosen Option : 2

Q.5 Which of the following assertions holds true when a constant volume of gas is heated?

- Ans
- 1. The temperature of the gas remains constant
  - 2. The heat added to the gas is equal to the change in internal energy
  - 3. The change in enthalpy of the gas is zero
  - 4. The work done by the gas is a finite value

Question ID : 630680503193  
Option 1 ID : 6306801966360  
Option 2 ID : 6306801966358  
Option 3 ID : 6306801966359  
Option 4 ID : 6306801966357  
Status : Answered  
Chosen Option : 2

Q.6 Which of the following is NOT a type of friction?

- Ans
- 1. Kinematic friction
  - 2. Kinetic friction
  - 3. Static friction
  - 4. Dynamic friction

Question ID : 630680394587  
Option 1 ID : 6306801538634  
Option 2 ID : 6306801538635  
Option 3 ID : 6306801538637  
Option 4 ID : 6306801538636  
Status : Answered  
Chosen Option : 1

Q.7 Determine the torsional rigidity of a hollow shaft of 200 mm external diameter and 150 mm internal diameter. Consider  $G = 90 \text{ GPa}$ .

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

Question ID : 630680205981  
Option 1 ID : 630680798729  
Option 2 ID : 630680798727  
Option 3 ID : 630680798730  
Option 4 ID : 630680798728  
Status : Not Answered  
Chosen Option : --

Q.8 Which of the following statements is true about the Carnot cycle?

- Ans
- 1. Its efficiency depends only on the pressure difference between the two reservoirs.
  - 2. It is a reversible cycle.
  - 3. It involves only two reversible isothermal processes.
  - 4. The efficiency of the Carnot cycle is always less than that of any other heat engine operating between the same two temperatures.

Question ID : 630680503233  
Option 1 ID : 6306801966519  
Option 2 ID : 6306801966517  
Option 3 ID : 6306801966518  
Option 4 ID : 6306801966520  
Status : Answered  
Chosen Option : 2

Q.9 Which of the following methods is NOT used for the leakage detection of CFC refrigerants?

- Ans
- 1. Halide torch
  - 2. Electronic leak detection device
  - 3. Burning candle
  - 4. Soap solution

Question ID : 630680506408  
Option 1 ID : 6306801979147  
Option 2 ID : 6306801979148  
Option 3 ID : 6306801979146  
Option 4 ID : 6306801979145  
Status : Not Answered  
Chosen Option : --

Q.10 A system undergoes a process in which it absorbs 500 J of heat and does 250 J of work. What is the change in the internal energy of the system?

- Ans
- 1. 750 J
  - 2. -250 J
  - 3. -750 J
  - 4. 250 J

Question ID : 630680503213  
Option 1 ID : 6306801966440  
Option 2 ID : 6306801966438  
Option 3 ID : 6306801966437  
Option 4 ID : 6306801966439  
Status : Answered  
Chosen Option : 4

Q.11 The value of specific gravity of mercury is \_\_\_\_\_.

- Ans
- 1. 0.136
  - 2. 1.36
  - 3. 13.6
  - 4. 0.0012

Question ID : 630680508721  
Option 1 ID : 6306801988186  
Option 2 ID : 6306801988185  
Option 3 ID : 6306801988187  
Option 4 ID : 6306801988184  
Status : Answered  
Chosen Option : 3

Q.12 Which of the following equations is based on the fact that the mass flow rate at any section remains constant?

- Ans
- 1. Steady flow energy equation
  - 2. Bernoulli's equation
  - 3. Continuity equation
  - 4. Momentum equation

Question ID : 630680502702  
Option 1 ID : 6306801964392  
Option 2 ID : 6306801964393  
Option 3 ID : 6306801964390  
Option 4 ID : 6306801964391  
Status : Answered  
Chosen Option : 3

Q.13 Which pressure indicates the difference between the atmospheric pressure and the absolute pressure?

- Ans
- 1. Vacuum pressure
  - 2. System pressure
  - 3. Gauge pressure
  - 4. Local atmospheric pressure

Question ID : 630680508741  
Option 1 ID : 6306801988264  
Option 2 ID : 6306801988266  
Option 3 ID : 6306801988265  
Option 4 ID : 6306801988267  
Status : Answered  
Chosen Option : 3

Q.14 When a system expands freely against vacuum, then work transfer involved is:

- Ans
- 1. negative
  - 2. zero
  - 3. positive
  - 4. either positive or negative

Question ID : 630680404004  
Option 1 ID : 6306801575503  
Option 2 ID : 6306801575504  
Option 3 ID : 6306801575502  
Option 4 ID : 6306801575505  
Status : Answered  
Chosen Option : 2

Q.15 A quick return motion mechanism used in shaper machine

- Ans
- 1. Maximize the time of forward stroke
  - 2. Reduce the motion of the machine
  - 3. Complete return stroke as quickly as possible
  - 4. Complete cutting stroke as quickly as possible

Question ID : 630680503270  
Option 1 ID : 6306801966668  
Option 2 ID : 6306801966665  
Option 3 ID : 6306801966666  
Option 4 ID : 6306801966667  
Status : Answered  
Chosen Option : 3

Q.16

Ans  1.

2.

3.

4.

Question ID : 630680502686  
Option 1 ID : 6306801964328  
Option 2 ID : 6306801964326  
Option 3 ID : 6306801964329  
Option 4 ID : 6306801964327  
Status : Answered  
Chosen Option : 1

Q.17 In a P-V diagram, if  $pV = \text{Constant}$ , then the process is called \_\_\_\_\_.

Ans  1. constant-volume process

2. adiabatic process

3. constant-pressure process

4. isothermal process

Question ID : 630680503228  
Option 1 ID : 6306801966497  
Option 2 ID : 6306801966500  
Option 3 ID : 6306801966499  
Option 4 ID : 6306801966498  
Status : Answered  
Chosen Option : 2

Q.18 Mention the sequence of points that mild steel material undergoes failure by referring to the stress strain diagram.

Ans  1. Yielding, Elastic Deformation, Strain Hardening, Necking,Fracture

2. Elastic Deformation, Yielding, Strain Hardening, Necking,Fracture

3. Elastic Deformation, Strain Hardening, Yielding, Necking,Fracture

4. Yielding, Elastic Deformation, Necking, Strain Hardening,Fracture

Question ID : 630680205972  
Option 1 ID : 630680798693  
Option 2 ID : 630680798691  
Option 3 ID : 630680798692  
Option 4 ID : 630680798694  
Status : Answered  
Chosen Option : 3

Q.19 The correct relationship between the coefficient of friction ( $\mu$ ) and the angle of friction  $:(\phi)$  is

- Ans
- 1.  $\mu = \cot \phi$
  - 2.  $\mu = \tan \phi$
  - 3.  $\mu = \sin \phi$
  - 4.  $\mu = \cos \phi$

Question ID : 630680509605  
Option 1 ID : 6306801991642  
Option 2 ID : 6306801991641  
Option 3 ID : 6306801991644  
Option 4 ID : 6306801991643  
Status : Answered  
Chosen Option : 2

Q.20 Which of the following statements is INCORRECT about atmospheric pressure?

- Ans
- 1. The equivalent value of atmospheric pressure is 10.3 cm of water.
  - 2. Atmospheric pressure is also called barometric pressure.
  - 3. Atmospheric pressure varies with altitude.
  - 4. The atmospheric air exerts normal pressure upon all the surfaces in contact.

Question ID : 630680193057  
Option 1 ID : 630680748768  
Option 2 ID : 630680748767  
Option 3 ID : 630680748766  
Option 4 ID : 630680748765  
Status : Answered  
Chosen Option : 1

Q.21 In an open channel flow, which device increases the enthalpy of gas using external work transfer?

- Ans
- 1. Turbine
  - 2. Motor
  - 3. Boiler
  - 4. Compressor

Question ID : 630680503242  
Option 1 ID : 6306801966554  
Option 2 ID : 6306801966556  
Option 3 ID : 6306801966553  
Option 4 ID : 6306801966555  
Status : Answered  
Chosen Option : 3

Q.22 Which of the following are fire tube boilers?

- Ans
- 1. Loeffler boilers
  - 2. Benson boilers
  - 3. Scotch-marine boilers
  - 4. Stirling boilers

Question ID : 630680503267  
Option 1 ID : 6306801966656  
Option 2 ID : 6306801966655  
Option 3 ID : 6306801966654  
Option 4 ID : 6306801966653  
Status : Answered  
Chosen Option : 4

Q.23 In case of two-stroke petrol engines, if exhaust gases do NOT leave the cylinder, then:

- Ans
- 1. fresh charge gets diluted and efficiency of the engine increases
  - 2. fresh charge gets diluted and efficiency of the engine decreases
  - 3. fresh charge gets diluted and efficiency of the engine remains unchanged
  - 4. fresh charge gets diluted and performance of the engine increases

Question ID : 630680181693  
Option 1 ID : 630680704016  
Option 2 ID : 630680704017  
Option 3 ID : 630680704014  
Option 4 ID : 630680704015  
Status : Answered  
Chosen Option : 2

Q.24 Which of the following materials is commonly used as a cutting tool material?

- Ans
- 1. Aluminium
  - 2. Diamond
  - 3. Copper
  - 4. Brass

Question ID : 630680503218  
Option 1 ID : 6306801966457  
Option 2 ID : 6306801966459  
Option 3 ID : 6306801966460  
Option 4 ID : 6306801966458  
Status : Answered  
Chosen Option : 2

Q.25 Under ideal conditions, for a drop of 80 kJ/kg enthalpy, what will be the approximate velocity of steam at the outlet of the nozzle if the inlet velocity of the steam is 2 m/s?

- Ans
- 1. 13 m/s
  - 2. 120 m/s
  - 3. 400 m/s
  - 4. 410 m/s

Question ID : 630680503258  
Option 1 ID : 6306801966619  
Option 2 ID : 6306801966620  
Option 3 ID : 6306801966617  
Option 4 ID : 6306801966618  
Status : Answered  
Chosen Option : 3

Q.26 The difference between the total head at the outlet of a centrifugal pump and the total head at the inlet of a centrifugal pump is called \_\_\_\_\_.

- Ans
- 1. suction head
  - 2. dynamic head
  - 3. static head
  - 4. manometric head

Question ID : 630680198965  
Option 1 ID : 630680771589  
Option 2 ID : 630680771590  
Option 3 ID : 630680771587  
Option 4 ID : 630680771588  
Status : Answered  
Chosen Option : 2

Q.27 According to the second law of thermodynamics, work is said to be \_\_\_\_\_ and heat is said to be \_\_\_\_\_.

- Ans
- 1. high-grade energy; high-grade energy
  - 2. low-grade energy; low-grade energy
  - 3. high-grade energy; low-grade energy
  - 4. low-grade energy; high-grade energy

Question ID : 630680503231  
Option 1 ID : 6306801966510  
Option 2 ID : 6306801966512  
Option 3 ID : 6306801966509  
Option 4 ID : 6306801966511  
Status : Answered  
Chosen Option : 3

Q.28 Sulphur dioxide refrigerant can be designated as:

- Ans
- 1. R-729
  - 2. R-744
  - 3. R-727
  - 4. R-764

Question ID : 630680348156  
Option 1 ID : 6306801354915  
Option 2 ID : 6306801354914  
Option 3 ID : 6306801354913  
Option 4 ID : 6306801354916  
Status : Not Answered  
Chosen Option : --

Q.29 The Zenith carburettor is a type of \_\_\_\_\_.

- Ans
- 1. multiple-venturi carburettor
  - 2. constant-vacuum carburettor
  - 3. constant-choke carburettor
  - 4. multijet carburettor

Question ID : 630680502728  
Option 1 ID : 6306801964496  
Option 2 ID : 6306801964495  
Option 3 ID : 6306801964494  
Option 4 ID : 6306801964497  
Status : Not Answered  
Chosen Option : --

Q.30 For a winter air-conditioning system, relative humidity should NOT be more than:

- Ans
- 1. 75%
  - 2. 60%
  - 3. 40%
  - 4. 90%

Question ID : 630680348154  
Option 1 ID : 6306801354906  
Option 2 ID : 6306801354905  
Option 3 ID : 6306801354908  
Option 4 ID : 6306801354907  
Status : Not Answered  
Chosen Option : --

Q.31 The bearing surface provided at any position along the shaft (but not at the end of the shaft) to carry the axial thrust, is known as \_\_\_\_\_.

- Ans
- 1. flat bearing surface
  - 2. truncated bearing surface
  - 3. conical bearing surface
  - 4. collar

Question ID : 630680227832  
Option 1 ID : 630680884003  
Option 2 ID : 630680884006  
Option 3 ID : 630680884005  
Option 4 ID : 630680884004  
Status : Answered  
Chosen Option : 3

Q.32 In the P-H diagram of the vapour compression cycle, the compression process is shown by a/an \_\_\_\_\_.

- Ans
- 1. inclined straight line with a negative slope
  - 2. curved line
  - 3. inclined straight line with a positive slope
  - 4. vertical line

Question ID : 630680506444  
Option 1 ID : 6306801979292  
Option 2 ID : 6306801979290  
Option 3 ID : 6306801979291  
Option 4 ID : 6306801979289  
Status : Answered  
Chosen Option : 1

Q.33 Which of the following expressions gives the area of flow for a Kaplan turbine?  
Where, D = diameter, B = width of vane,  $D_o$  = outer diameter of runner,  $D_b$  = diameter of hub

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

Question ID : 630680508730  
Option 1 ID : 6306801988220  
Option 2 ID : 6306801988223  
Option 3 ID : 6306801988222  
Option 4 ID : 6306801988221  
Status : Not Answered  
Chosen Option : --

Q.34 Which of the following statements is/are correct regarding Fire Tube Boilers?

- 1) In fire tube boilers, the hot gases are inside the tubes and water surrounds the tubes.
- 2) Cochran boiler is a type of fire tube boiler.
- 3) Stirling boiler is a type of fire tube boiler.

Ans  1. 1 and 3

2. 1 and 2

3. 2 and 3

4. Only 1

Question ID : 630680395229

Option 1 ID : 6306801541127

Option 2 ID : 6306801541125

Option 3 ID : 6306801541126

Option 4 ID : 6306801541124

Status : Answered

Chosen Option : 1

Q.35 \_\_\_\_\_ is the machining process that uses a saw blade to remove material from a workpiece.

Ans  1. Drilling

2. Filing

3. Turning

4. Sawing

Question ID : 630680503219

Option 1 ID : 6306801966461

Option 2 ID : 6306801966462

Option 3 ID : 6306801966464

Option 4 ID : 6306801966463

Status : Answered

Chosen Option : 4

Q.36 Which of the following statements is INCORRECT about the Cochran boiler?

Ans  1. The Cochran boiler is a multi-tubular boiler.

2. The Cochran boiler is an externally fired boiler.

3. The Cochran boiler is a natural circulation type boiler.

4. The Cochran boiler is a vertical boiler.

Question ID : 630680502642

Option 1 ID : 6306801964151

Option 2 ID : 6306801964150

Option 3 ID : 6306801964153

Option 4 ID : 6306801964152

Status : Not Answered

Chosen Option : --

Q.37 Calculate the minimum diameter of the shaft, such that the shearing stress does NOT exceed  $50 \text{ N/mm}^2$  during torque transmission of  $15000 \text{ N-m}$ .

- Ans
- 1. 120.6 mm
  - 2. 98.4 mm
  - 3. 100.2 mm
  - 4. 115.2 mm

Question ID : 630680205984  
Option 1 ID : 630680798741  
Option 2 ID : 630680798742  
Option 3 ID : 630680798740  
Option 4 ID : 630680798739  
Status : Not Answered  
Chosen Option : --

Q.38 Manometric efficiency of a centrifugal pump is defined as the \_\_\_\_\_.

- Ans
- 1. ratio of the power available at the impeller to the power at the shaft
  - 2. difference of the manometric head and the static head
  - 3. ratio of the manometric head to the head imparted by the impeller
  - 4. ratio of the actual discharge to the theoretical discharge

Question ID : 630680198964  
Option 1 ID : 630680771585  
Option 2 ID : 630680771586  
Option 3 ID : 630680771583  
Option 4 ID : 630680771584  
Status : Not Answered  
Chosen Option : --

Q.39 Chezy's equation is applicable for:

- Ans
- 1. steady internal flow
  - 2. transient internal flow
  - 3. steady open flow
  - 4. transient open flow

Question ID : 630680508618  
Option 1 ID : 6306801987773  
Option 2 ID : 6306801987772  
Option 3 ID : 6306801987775  
Option 4 ID : 6306801987774  
Status : Not Answered  
Chosen Option : --

**Q.40** The right limb of a simple manometer containing mercury is open to atmosphere. The left limb is connected to a pipe in which a fluid of specific gravity 0.9 is flowing. The centre of the pipe is 12 cm below the level of mercury in the right limb. The difference of mercury level in the two limbs is 20 cm. What is the pressure of fluid in the pipe (take  $g = 10 \text{ m/s}^2$ )?

- Ans
- 1. 27200  $\text{N/m}^2$
  - 2. 26480  $\text{N/m}^2$
  - 3. 27920  $\text{N/m}^2$
  - 4. 720  $\text{N/m}^2$

Question ID : 630680199001

Option 1 ID : 630680771732

Option 2 ID : 630680771731

Option 3 ID : 630680771733

Option 4 ID : 630680771734

Status : Answered

Chosen Option : 2

**Q.41** In which of the following turbines, the ends of the blades are welded to disks to form a cage like a hamster cage and instead of the bars, the turbine has the trough-shaped steel blades?

- Ans
- 1. Pelton turbine
  - 2. Kaplan turbine
  - 3. Francis turbine
  - 4. Cross-flow turbine

Question ID : 630680508630

Option 1 ID : 6306801987820

Option 2 ID : 6306801987823

Option 3 ID : 6306801987821

Option 4 ID : 6306801987822

Status : Not Answered

Chosen Option : --

**Q.42** The data for an impulse steam turbine are given as follows.

(i) Mean blade velocity = 400 m/s

(ii) Absolute velocity of steam at the inlet to the moving blade = 1200 m/s

(iii) Sum of velocities of whirl at the inlet and the outlet of the blade = 1500 m/s

What will be the efficiency of the blade?

- Ans
- 1. 0.42
  - 2. 0.5
  - 3. 0.83
  - 4. 0.67

Question ID : 630680502689

Option 1 ID : 6306801964338

Option 2 ID : 6306801964339

Option 3 ID : 6306801964341

Option 4 ID : 6306801964340

Status : Not Answered

Chosen Option : --

Q.43 The continuous injection system usually has a \_\_\_\_\_.

- Ans
- 1. plunger pump
  - 2. gear pump
  - 3. vane pump
  - 4. rotary pump

Question ID : 630680502731  
Option 1 ID : 6306801964506  
Option 2 ID : 6306801964508  
Option 3 ID : 6306801964509  
Option 4 ID : 6306801964507  
Status : Not Answered  
Chosen Option : --

Q.44 In a vapour absorption refrigeration system, heating, cooling and refrigeration take place at the temperatures of 100°C, 20°C and -5°C, respectively. Find the maximum C.O.P. of the system.

- Ans
- 1. 1.5
  - 2. 2.7
  - 3. 2.3
  - 4. 1.8

Question ID : 630680506400  
Option 1 ID : 6306801979113  
Option 2 ID : 6306801979116  
Option 3 ID : 6306801979115  
Option 4 ID : 6306801979114  
Status : Not Answered  
Chosen Option : --

Q.45 The product of the area of the surface and the intensity of pressure at the centroid of the area is called \_\_\_\_\_.

- Ans
- 1. pressure density
  - 2. buoyant force
  - 3. viscous force
  - 4. total pressure

Question ID : 630680508738  
Option 1 ID : 6306801988252  
Option 2 ID : 6306801988254  
Option 3 ID : 6306801988255  
Option 4 ID : 6306801988253  
Status : Answered  
Chosen Option : 2

Q.46 What is the SI unit of surface tension?

Ans  1.

2.

3.

4.

Question ID : 630680198996  
Option 1 ID : 630680771714  
Option 2 ID : 630680771712  
Option 3 ID : 630680771711  
Option 4 ID : 630680771713  
Status : Answered  
Chosen Option : 3

Q.47 In a vapour compression refrigeration system, the lowest temperature during the cycle is observed after:

Ans  1. evaporation

2. compression

3. expansion

4. condensation

Question ID : 630680506389  
Option 1 ID : 6306801979071  
Option 2 ID : 6306801979070  
Option 3 ID : 6306801979072  
Option 4 ID : 6306801979069  
Status : Answered  
Chosen Option : 2

Q.48 The boiling point of inorganic refrigerant R-744 is \_\_\_\_\_.

Ans  1. -15.8°C

2. -73.6°C

3. +22.4°C

4. +33.6°C

Question ID : 630680506404  
Option 1 ID : 6306801979131  
Option 2 ID : 6306801979130  
Option 3 ID : 6306801979132  
Option 4 ID : 6306801979129  
Status : Not Answered  
Chosen Option : --

Q.49 Which of the following types of cast iron is the hardest among all?

- Ans  1. White cast iron  
 2. Brittle cast iron  
 3. Ductile cast iron  
 4. Gray cast iron

Question ID : 630680191552  
Option 1 ID : 630680742829  
Option 2 ID : 630680742832  
Option 3 ID : 630680742831  
Option 4 ID : 630680742830  
Status : Answered  
Chosen Option : 4

Q.50 Which of the following is NOT a component of a hydroelectric power plant?

- Ans  1. Surge tank  
 2. Condenser  
 3. Penstock  
 4. Tailrace

Question ID : 630680193064  
Option 1 ID : 630680748794  
Option 2 ID : 630680748796  
Option 3 ID : 630680748793  
Option 4 ID : 630680748795  
Status : Not Answered  
Chosen Option : --

Q.51 For which of the following fluids is the rate of deformation proportional to the shear stress?

- Ans  1. Blood  
 2. Gasoline  
 3. Rice starch  
 4. Milk

Question ID : 630680508715  
Option 1 ID : 6306801988162  
Option 2 ID : 6306801988161  
Option 3 ID : 6306801988163  
Option 4 ID : 6306801988160  
Status : Not Answered  
Chosen Option : --

Q.52 Which of the following statements is INCORRECT about the high-pressure and low-water safety alarm in a steam boiler?

- Ans  1. The high-pressure and low-water safety alarm has two valves.  
 2. The high-pressure and low-water safety alarm is a safety mounting against high pressure and low water levels.  
 3. The high-pressure and low-water safety alarm is suitable for a locomotive boiler.  
 4. The high-pressure and low-water safety alarm operates with loud noise.

Question ID : 630680502646  
Option 1 ID : 6306801964169  
Option 2 ID : 6306801964166  
Option 3 ID : 6306801964167  
Option 4 ID : 6306801964168  
Status : Not Answered  
Chosen Option : --

**Q.53 Which of the following is NOT a function of lubricating oils used in refrigerants?**

- Ans
- 1. Transferring heat from the crank-case to the compressor
  - 2. Sealing the gas between the suction and discharge ports
  - 3. Decreasing the coolant temperature and hence increasing COP
  - 4. Minimising friction

Question ID : 630680506446  
Option 1 ID : 6306801979299  
Option 2 ID : 6306801979298  
Option 3 ID : 6306801979300  
Option 4 ID : 6306801979297  
Status : Not Answered  
Chosen Option : --

**Q.54 Which of the following is a requirement of a good ignition system?**

- Ans
- 1. It should give good performance at low speed but at high-speed, performance doesn't matter.
  - 2. It should be as small as possible in size.
  - 3. It should have good reproducibility of secondary voltage rise.
  - 4. It should have very low spark duration.

Question ID : 630680502669  
Option 1 ID : 6306801964259  
Option 2 ID : 6306801964261  
Option 3 ID : 6306801964260  
Option 4 ID : 6306801964258  
Status : Answered  
Chosen Option : 4

**Q.55 Which of the following types of steam nozzle is suitable for use when the inlet steam velocity is very low and the outlet steam velocity is desired to be supersonic?**

- Ans
- 1. Divergent nozzle
  - 2. Convergent-divergent nozzle
  - 3. Divergent-convergent nozzle
  - 4. Convergent nozzle

Question ID : 630680502701  
Option 1 ID : 6306801964387  
Option 2 ID : 6306801964388  
Option 3 ID : 6306801964389  
Option 4 ID : 6306801964386  
Status : Not Answered  
Chosen Option : --

**Q.56 When a body is immersed in a fluid, upward force exerted by the fluid is equal to the \_\_\_\_\_.**

- Ans
- 1. volume of water displaced by the body
  - 2. weight of the body
  - 3. weight of the fluid displaced by the body
  - 4. density of the Body

Question ID : 630680202479  
Option 1 ID : 630680785157  
Option 2 ID : 630680785156  
Option 3 ID : 630680785155  
Option 4 ID : 630680785158  
Status : Answered  
Chosen Option : 3

Q.57 \_\_\_\_\_ is a type of rolling process used in metalworking.

- Ans
- 1. Injection moulding
  - 2. Powder metallurgy
  - 3. Hot rolling
  - 4. Hydroforming

Question ID : 630680503238  
Option 1 ID : 6306801966540  
Option 2 ID : 6306801966538  
Option 3 ID : 6306801966539  
Option 4 ID : 6306801966537  
Status : Answered  
Chosen Option : 3

Q.58 Identify the operation of production of flat vertical surfaces on both sides of a workpiece by using two side milling cutters mounted on the same arbor.

- Ans
- 1. Side milling
  - 2. Gang milling
  - 3. Straddle milling
  - 4. Face milling

Question ID : 630680205085  
Option 1 ID : 630680795205  
Option 2 ID : 630680795203  
Option 3 ID : 630680795204  
Option 4 ID : 630680795206  
Status : Answered  
Chosen Option : 4

Q.59 Which part of the lathe has a long shaft with the keyway extending from the feed box across and in front of the bed?

- Ans
- 1. Headstock spindle
  - 2. Feed rod
  - 3. Sliding gear shaft
  - 4. Lead screw

Question ID : 630680205072  
Option 1 ID : 630680795153  
Option 2 ID : 630680795152  
Option 3 ID : 630680795154  
Option 4 ID : 630680795151  
Status : Answered  
Chosen Option : 2

Q.60 The area under a P-V diagram represents \_\_\_\_\_.

- Ans
- 1. the efficiency of the system
  - 2. the heat added to the system
  - 3. the heat rejected by the system
  - 4. the net work done by the system

Question ID : 630680503227  
Option 1 ID : 6306801966496  
Option 2 ID : 6306801966494  
Option 3 ID : 6306801966495  
Option 4 ID : 6306801966493  
Status : Answered  
Chosen Option : 4

Q.61 For ammonia refrigerating systems, the tubes of a shell and tube condenser are made of\_\_\_\_\_.

- Ans  1. aluminium  
 2. steel  
 3. copper  
 4. brass

Question ID : 630680506430  
Option 1 ID : 6306801979234  
Option 2 ID : 6306801979235  
Option 3 ID : 6306801979233  
Option 4 ID : 6306801979236  
Status : Not Answered  
Chosen Option : --

Q.62 In case of a single stage centrifugal compressor, the compression ratio that an impeller can develop is limited to about:

- Ans  1. 3.5  
 2. 4.0  
 3. 4.5  
 4. 3.0

Question ID : 630680506441  
Option 1 ID : 6306801979279  
Option 2 ID : 6306801979280  
Option 3 ID : 6306801979278  
Option 4 ID : 6306801979277  
Status : Not Answered  
Chosen Option : --

Q.63 Which of the following is an advantage of multistage reciprocating air compressor?

- Ans  1. Lubrication improved due to lower temperature  
 2. Volumetric efficiency increases for the same pressure ratio  
 3. Less expensive with longer life  
 4. Chance of leakage loss is low

Question ID : 630680502678  
Option 1 ID : 6306801964295  
Option 2 ID : 6306801964294  
Option 3 ID : 6306801964296  
Option 4 ID : 6306801964297  
Status : Not Answered  
Chosen Option : --

Q.64 Which of the following governing methods is used for gas engines?

- Ans  1. Controlled governing  
 2. Quality governing  
 3. Hit-and-miss governing  
 4. Quantity governing

Question ID : 630680502725  
Option 1 ID : 6306801964485  
Option 2 ID : 6306801964483  
Option 3 ID : 6306801964482  
Option 4 ID : 6306801964484  
Status : Not Answered  
Chosen Option : --

Q.65 Which of the following statements is INCORRECT about the friction factor of Darcy's equation?

- Ans
- 1. The value of friction factor depends on the Reynolds number of the flow.
  - 2. Friction factor is a dimensionless quantity.
  - 3. The value of friction factor depends on the roughness condition of the pipe surface.
  - 4. Friction factor value is same for all the flow conditions.

Question ID : 630680198986  
Option 1 ID : 630680771674  
Option 2 ID : 630680771671  
Option 3 ID : 630680771673  
Option 4 ID : 630680771672  
Status : Not Answered  
Chosen Option : --

Q.66 Which of the following statements is correct about slotting process?

- Ans
- 1. Both, tool and workpiece can reciprocate according to the size of slotting machine and workpiece.
  - 2. The tool reciprocates horizontally and the workpiece is fed into the cutting tool.
  - 3. The workpiece reciprocates horizontally and the tool is fed in.
  - 4. The tool reciprocates vertically and the workpiece is fed into the cutting tool.

Question ID : 630680503252  
Option 1 ID : 6306801966596  
Option 2 ID : 6306801966593  
Option 3 ID : 6306801966595  
Option 4 ID : 6306801966594  
Status : Not Answered  
Chosen Option : --

Q.67 If the indicated power and frictional power of an engine are 100 KW and 25 KW, respectively, then what will be the brake power of the engine?

- Ans
- 1. 62.5 KW
  - 2. 125 KW
  - 3. 50 KW
  - 4. 75 KW

Question ID : 630680382396  
Option 1 ID : 6306801490502  
Option 2 ID : 6306801490499  
Option 3 ID : 6306801490500  
Option 4 ID : 6306801490501  
Status : Answered  
Chosen Option : 4

Q.68 Which of the following moulding techniques uses a sand and clay mixture as the mould material?

- Ans  1. Green sand moulding  
 2. Investment casting  
 3. Die casting  
 4. Shell moulding

Question ID : 630680503203  
Option 1 ID : 6306801966398  
Option 2 ID : 6306801966399  
Option 3 ID : 6306801966400  
Option 4 ID : 6306801966397  
Status : Answered  
Chosen Option : 1

Q.69 At absolute zero temperature ( $T = 0K$ ), the specific enthalpy of an ideal gas is:

- Ans  1. 0  
 2. infinite  
 3. 1  
 4.  $<0$

Question ID : 630680404000  
Option 1 ID : 6306801575486  
Option 2 ID : 6306801575488  
Option 3 ID : 6306801575487  
Option 4 ID : 6306801575489  
Status : Answered  
Chosen Option : 1

Q.70 In chemical machining, material is removed from the work piece by \_\_\_\_\_.

- Ans  1. chemical burning  
 2. chemical dissolution  
 3. chemical evaporation  
 4. erosion

Question ID : 630680503250  
Option 1 ID : 6306801966587  
Option 2 ID : 6306801966588  
Option 3 ID : 6306801966585  
Option 4 ID : 6306801966586  
Status : Answered  
Chosen Option : 2

Q.71 Which of the following statements is true for magneto ignition system?

- Ans  1. More frequent maintenance is required compared to coil ignition system.  
 2. Its intensity of spark is very good even at low speed.  
 3. It is simpler in construction than coil ignition system.  
 4. The efficiency of the system improves as the engine speed increases.

Question ID : 630680502670  
Option 1 ID : 6306801964264  
Option 2 ID : 6306801964263  
Option 3 ID : 6306801964262  
Option 4 ID : 6306801964265  
Status : Not Answered  
Chosen Option : --

**Q.72** The fully halogenated refrigerants with chlorine (Cl) atom in their molecules are referred to as:

- Ans
- 1. HCFC refrigerants
  - 2. CFC refrigerants
  - 3. inorganic refrigerants
  - 4. hydro-carbon refrigerants

Question ID : 630680506412  
Option 1 ID : 6306801979163  
Option 2 ID : 6306801979164  
Option 3 ID : 6306801979162  
Option 4 ID : 6306801979161  
Status : Not Answered  
Chosen Option : --

**Q.73** What is the purpose of a pattern in the casting pattern procedure?

- Ans
- 1. To pour molten metal into the mould cavity
  - 2. To create the mould cavity
  - 3. To remove the casting from the mould
  - 4. To clean the mould before casting

Question ID : 630680503201  
Option 1 ID : 6306801966390  
Option 2 ID : 6306801966389  
Option 3 ID : 6306801966391  
Option 4 ID : 6306801966392  
Status : Answered  
Chosen Option : 2

**Q.74** In which of the following types of draught is air forced into the boiler under pressure by a fan?

- Ans
- 1. Natural draught
  - 2. Forced draught
  - 3. Steam jet draught
  - 4. Induced draught

Question ID : 630680502652  
Option 1 ID : 6306801964190  
Option 2 ID : 6306801964191  
Option 3 ID : 6306801964193  
Option 4 ID : 6306801964192  
Status : Answered  
Chosen Option : 4

**Q.75** Which shielding gas is commonly used in TIG welding?

- Ans
- 1. Carbon dioxide
  - 2. Oxygen
  - 3. Argon
  - 4. Hydrogen

Question ID : 630680205052  
Option 1 ID : 630680795071  
Option 2 ID : 630680795072  
Option 3 ID : 630680795073  
Option 4 ID : 630680795074  
Status : Answered  
Chosen Option : 1

Q.76 In a side milling cutter, the angle between the cleared flank of the blade and a tangent to the periphery in a diametral plane passing through the cutting edge is called \_\_\_\_\_.

- Ans
- 1. peripheral clearance angle
  - 2. peripheral relief angle
  - 3. face relief angle
  - 4. face clearance angle

Question ID : 630680205086  
Option 1 ID : 630680795210  
Option 2 ID : 630680795208  
Option 3 ID : 630680795209  
Option 4 ID : 630680795207  
Status : Not Answered  
Chosen Option : --

Q.77 Which of the following forced convection evaporator units have a discharge air rate from 60 m/min to 90 m/min?

- Ans
- 1. Frosting evaporators
  - 2. Defrosting evaporators
  - 3. High velocity cooling forced convection evaporators
  - 4. Low velocity cooling forced convection evaporators

Question ID : 630680506424  
Option 1 ID : 6306801979209  
Option 2 ID : 6306801979210  
Option 3 ID : 6306801979211  
Option 4 ID : 6306801979212  
Status : Not Answered  
Chosen Option : --

Q.78 What is the order of temperature generated at the anode during arc generation in electric arc welding?

- Ans
- 1. 2000°C
  - 2. 6000°C
  - 3. 3500°C
  - 4. 4500°C

Question ID : 630680211303  
Option 1 ID : 630680819359  
Option 2 ID : 630680819361  
Option 3 ID : 630680819360  
Option 4 ID : 630680819362  
Status : Not Answered  
Chosen Option : --

Q.79 Free expansion process is \_\_\_\_\_.

- Ans
- 1. a reversible process
  - 2. initially it is reversible and later it become irreversible
  - 3. an irreversible process
  - 4. sometimes reversible and sometimes irreversible

Question ID : 630680503255  
Option 1 ID : 6306801966605  
Option 2 ID : 6306801966608  
Option 3 ID : 6306801966606  
Option 4 ID : 6306801966607  
Status : Answered  
Chosen Option : 3

Q.80 Vertical depth of any point below the free surface in a liquid at rest is known as \_\_\_\_\_.

- Ans
- 1. pressure head
  - 2. velocity head
  - 3. datum head
  - 4. total head

Question ID : 630680193060  
Option 1 ID : 630680748777  
Option 2 ID : 630680748779  
Option 3 ID : 630680748778  
Option 4 ID : 630680748780  
Status : Answered  
Chosen Option : 4

Q.81 The pressure at any point in a fluid at rest has the same magnitude in all the directions. This fact is known as \_\_\_\_\_.

- Ans
- 1. the pressure law
  - 2. Bernoulli's law
  - 3. Pascal's law
  - 4. Newton's law

Question ID : 630680193058  
Option 1 ID : 630680748772  
Option 2 ID : 630680748769  
Option 3 ID : 630680748770  
Option 4 ID : 630680748771  
Status : Answered  
Chosen Option : 3

Q.82 Consider an air standard cycle in which the air enters the compressor at 1.0 bar and 20°C. The pressure of air leaving the compressor is 3.5 bar and the temperature at the turbine inlet is 600°C. For 1 kg of air, determine the efficiency of the cycle:

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

Question ID : 630680502754  
Option 1 ID : 6306801964600  
Option 2 ID : 6306801964598  
Option 3 ID : 6306801964599  
Option 4 ID : 6306801964601  
Status : Not Answered  
Chosen Option : --

Q.83 The boiling point of refrigerant R-13 is \_\_\_\_\_.

- Ans
- 1. +86.6°C
  - 2. -107.7°C
  - 3. -81.4°C
  - 4. -157.5°C

Question ID : 630680506407  
Option 1 ID : 6306801979142  
Option 2 ID : 6306801979141  
Option 3 ID : 6306801979143  
Option 4 ID : 6306801979144  
Status : Not Answered  
Chosen Option : --

Q.84 If 'u' is the velocity of the runner and 'V' is the velocity of the jet at inlet, what is the condition for the maximum hydraulic efficiency of a Pelton wheel?

- Ans
- 1.  $V = u$
  - 2.  $V = u/2$
  - 3.  $V = 2u$
  - 4.  $V = 3u$

Question ID : 630680199990  
Option 1 ID : 630680775406  
Option 2 ID : 630680775407  
Option 3 ID : 630680775405  
Option 4 ID : 630680775408  
Status : Not Answered  
Chosen Option : --

Q.85 Internal combustion engines have \_\_\_\_\_.

- Ans
- 1. lower thermal efficiency than external combustion engine
  - 2. higher thermal efficiency than external combustion engine
  - 3. high initial cost compared to external combustion engine
  - 4. low power to weight ratio compared to external combustion engine

Question ID : 630680502662  
Option 1 ID : 6306801964231  
Option 2 ID : 6306801964230  
Option 3 ID : 6306801964233  
Option 4 ID : 6306801964232  
Status : Answered  
Chosen Option : 2

Q.86 Brake power involves determination of the:

- Ans
- 1. inertia and displacement of the shaft
  - 2. piston indicator
  - 3. pressure and piston displacement
  - 4. torque and angular speed of the shaft

Question ID : 630680181703  
Option 1 ID : 630680704055  
Option 2 ID : 630680704057  
Option 3 ID : 630680704056  
Option 4 ID : 630680704054  
Status : Answered  
Chosen Option : 3

Q.87 In a single stationary blade type rotary compressor, a blade is set into the slot of a cylinder in such a manner that it always maintains contact with the roller by means of:

- Ans
- 1. centrifugal force
  - 2. spring
  - 3. gravity
  - 4. cam and follower

Question ID : 630680506438  
Option 1 ID : 6306801979267  
Option 2 ID : 6306801979268  
Option 3 ID : 6306801979266  
Option 4 ID : 6306801979265  
Status : Not Answered  
Chosen Option : --

Q.88 The total pressure acting on any immersed body is independent of:

- Ans
- 1. the density of liquid
  - 2. the depth of C.G. of body from free surface of liquid
  - 3. the angle made by surface with the free surface of liquid
  - 4. the surface area of body

Question ID : 630680508634  
Option 1 ID : 6306801987836  
Option 2 ID : 6306801987838  
Option 3 ID : 6306801987839  
Option 4 ID : 6306801987837  
Status : Not Answered  
Chosen Option : --

Q.89 Pump disassembling is NOT necessary in \_\_\_\_\_ .

- Ans
- 1. open impellers
  - 2. semi-open impellers
  - 3. cannot be predicted
  - 4. closed impellers

Question ID : 630680508725  
Option 1 ID : 6306801988200  
Option 2 ID : 6306801988202  
Option 3 ID : 6306801988203  
Option 4 ID : 6306801988201  
Status : Answered  
Chosen Option : 1

Q.90 For the given overall heat transfer coefficient and temperature difference, if the area of evaporator surface increases, then the capacity of evaporator:

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

Question ID : 630680506425  
Option 1 ID : 6306801979216  
Option 2 ID : 6306801979214  
Option 3 ID : 6306801979213  
Option 4 ID : 6306801979215  
Status : Answered  
Chosen Option : 2

Q.91 Which of the following statements is INCORRECT about the steam separator in a steam boiler?

- Ans
- 1. In the steam separator, water separates out from steam due to its greater inertia.
  - 2. In the steam separator, steam is made to change its direction of flow.
  - 3. Steam separator is provided to collect the water resulting from partial condensation of steam.
  - 4. Steam separator is also known as steam drier.

Question ID : 630680502655  
Option 1 ID : 6306801964202  
Option 2 ID : 6306801964203  
Option 3 ID : 6306801964205  
Option 4 ID : 6306801964204  
Status : Not Answered  
Chosen Option : --

Q.92 The condition of equilibrium states that a stationary body that is subjected to coplanar forces will be in equilibrium if the algebraic sum of all the \_\_\_\_\_ and the algebraic sum of \_\_\_\_\_ of all the external forces about any point in their plane is zero.

- Ans
- 1. internal forces; moment
  - 2. external forces; moment
  - 3. internal forces; couple
  - 4. external forces; couple

Question ID : 630680394575  
Option 1 ID : 6306801538588  
Option 2 ID : 6306801538587  
Option 3 ID : 6306801538586  
Option 4 ID : 6306801538589  
Status : Answered  
Chosen Option : 2

Q.93 When there is a \_\_\_\_\_, work is transferred over the system boundary in an open system.

- Ans
- 1. change in the potential energy of the fluid
  - 2. difference in datum head between the system and surroundings
  - 3. change in the kinetic energy of the fluid
  - 4. difference in pressure between the system and surroundings

Question ID : 630680503175  
Option 1 ID : 6306801966286  
Option 2 ID : 6306801966288  
Option 3 ID : 6306801966285  
Option 4 ID : 6306801966287  
Status : Answered  
Chosen Option : 4

Q.94 The enthalpy of an open system \_\_\_\_\_.

- Ans
- 1. increases as energy is added to the system
  - 2. remains constant
  - 3. decreases as energy is added to the system
  - 4. is not a meaningful concept

Question ID : 630680503209  
Option 1 ID : 6306801966422  
Option 2 ID : 6306801966421  
Option 3 ID : 6306801966423  
Option 4 ID : 6306801966424  
Status : Answered  
Chosen Option : 1

Q.95 Which of the following statements is correct in case of semi-open impeller?

- Ans
- 1. Both sides of the impeller vanes are covered with baseplates.
  - 2. One side of the impeller vanes is covered with a baseplate.
  - 3. Both sides of the impeller vanes are covered with crown plates.
  - 4. Impeller vanes are not covered with baseplates.

Question ID : 630680198975  
Option 1 ID : 630680771627  
Option 2 ID : 630680771628  
Option 3 ID : 630680771630  
Option 4 ID : 630680771629  
Status : Answered  
Chosen Option : 4

**Q.96** Which of the following is the condition of the maximum discharge of flue gases through a chimney in a steam boiler?

- Ans
- 1. The temperature of flue gases is slightly greater than twice the atmospheric temperature in Kelvin units.
  - 2. The maximum discharge of flue gases through a chimney does not depend on the temperature of flue gases in the steam boiler.
  - 3. The temperature of flue gases is exactly equal to twice the atmospheric temperature in Kelvin units.
  - 4. The temperature of flue gases is equal to the atmospheric temperature in Kelvin units.

Question ID : 630680502650  
Option 1 ID : 6306801964184  
Option 2 ID : 6306801964185  
Option 3 ID : 6306801964183  
Option 4 ID : 6306801964182  
Status : Not Answered  
Chosen Option : --

**Q.97** In the study of flow of fluid in pipes, total energy line is also known as \_\_\_\_\_.

- Ans
- 1. hydraulic gradient line
  - 2. pressure line
  - 3. energy gradient line
  - 4. piezometric head line

Question ID : 630680198987  
Option 1 ID : 630680771675  
Option 2 ID : 630680771676  
Option 3 ID : 630680771678  
Option 4 ID : 630680771677  
Status : Not Answered  
Chosen Option : --

**Q.98** The ratio of the actual brake thermal efficiency obtained from an engine to the theoretical efficiency of the engine cycle is called:

- Ans
- 1. relative efficiency
  - 2. combustion efficiency
  - 3. brake thermal efficiency
  - 4. scavenging efficiency

Question ID : 630680348136  
Option 1 ID : 6306801354834  
Option 2 ID : 6306801354835  
Option 3 ID : 6306801354833  
Option 4 ID : 6306801354836  
Status : Answered  
Chosen Option : 3

Q.99 Which of the following is the chemical formula of hydro-carbon refrigerant R-170?

- Ans  1.  $C_2H_6$   
 2.  $C_3H_8$   
 3.  $C_4H_{10}$   
 4.  $C_3H_6$

Question ID : 630680506406

Option 1 ID : 6306801979138

Option 2 ID : 6306801979137

Option 3 ID : 6306801979139

Option 4 ID : 6306801979140

Status : Not Answered

Chosen Option : --

Q.100 What will be the average pressure in plate clutch when the axial force is 4 kN. The inside radius of the contact surface is 50 mm and the outside radius is 100 mm. Assume uniform wear.

- Ans  1.  $17 \text{ N/mm}^2$   
 2.  $0.17 \text{ N/m}^2$   
 3.  $0.17 \text{ N/mm}^2$   
 4.  $1.7 \text{ N/mm}^2$

Question ID : 630680227842

Option 1 ID : 630680884044

Option 2 ID : 630680884046

Option 3 ID : 630680884045

Option 4 ID : 630680884043

Status : Not Answered

Chosen Option : --