

HPCL Jr Executive

**Previous Year Paper
(Mechanical Engg.)**

16 Aug, 2025



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Participant ID	
Participant Name	
Test Center Name	
Test Date	16/08/2025
Test Time	9:00 AM - 11:30 AM
Subject	Jr Executive Mechanical Ref

Section : English Language

Q.1 Select the INCORRECTLY spelt word.

- Ans A. Leisure
 B. Quaver
 C. Farsical
 D. Hexagonal

Question ID : 441009301268
Option 1 ID : 4410091172191
Option 2 ID : 4410091172189
Option 3 ID : 4410091172190
Option 4 ID : 4410091172188
Status : Answered
Chosen Option : C

Q.2 Select the most appropriate ANTONYM of the given word.

Hamstrung

- Ans A. Curious
 B. Tethered
 C. Expedient
 D. Inefficient

Question ID : 441009301223
Option 1 ID : 4410091172010
Option 2 ID : 4410091172009
Option 3 ID : 4410091172011
Option 4 ID : 4410091172008
Status : Not Answered
Chosen Option : --

Q.3 Select the most appropriate option that rectifies the underlined incorrectly spelt word in the given sentence.

Distracted by despondance, she had not realised how deeply she missed him.

- Ans
- A. despondense
 - B. despodence
 - C. decpondence
 - D. despondence

Question ID : 441009301340
Option 1 ID : 4410091172477
Option 2 ID : 4410091172476
Option 3 ID : 4410091172479
Option 4 ID : 4410091172478
Status : Answered
Chosen Option : A

Q.4 Select the most appropriate option to fill in the blank.

There has been a squabble _____ recently.

- Ans
- A. here
 - B. nowhere
 - C. seldom
 - D. tomorrow

Question ID : 441009301151
Option 1 ID : 4410091171714
Option 2 ID : 4410091171715
Option 3 ID : 4410091171713
Option 4 ID : 4410091171712
Status : Answered
Chosen Option : A

Q.5 Select the INCORRECTLY spelt word.

- Ans
- A. Avalanche
 - B. Physicists
 - C. Sachel
 - D. Pinnacle

Question ID : 441009301283
Option 1 ID : 4410091172249
Option 2 ID : 4410091172250
Option 3 ID : 4410091172251
Option 4 ID : 4410091172248
Status : Answered
Chosen Option : C

Q.6 Select the most appropriate article to fill in the blank. If no article is needed, select 'No article required'.

Mandira showed her hand-made quilts to _____ guests she had invited.

- Ans A. No article required
 B. the
 C. a
 D. an

Question ID : 441009300746
Option 1 ID : 4410091170091
Option 2 ID : 4410091170089
Option 3 ID : 4410091170088
Option 4 ID : 4410091170090
Status : Answered
Chosen Option : B

Q.7 Select the most appropriate option to fill in the blank.

She sang a song, as she skipped _____ along the path.

- Ans A. recklessly
 B. firmly
 C. noisily
 D. lightly

Question ID : 441009301020
Option 1 ID : 4410091171190
Option 2 ID : 4410091171191
Option 3 ID : 4410091171189
Option 4 ID : 4410091171188
Status : Answered
Chosen Option : A

Q.8 Select the most appropriate article to fill in the blank. If no article is needed, select 'No article required'.

He looked at _____ painting that his best friend had given him.

- Ans A. a
 B. No article required
 C. the
 D. an

Question ID : 441009300776
Option 1 ID : 4410091170210
Option 2 ID : 4410091170211
Option 3 ID : 4410091170209
Option 4 ID : 4410091170208
Status : Answered
Chosen Option : C

Q.9 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

- A. Poor people can at least help draw water from the well and store it in the tank, which can be used by both human beings and animals.
 B. This concept has been etched in my mind ever since I was a child.
 C. A philanthropist donates a well, builds a tank, and makes provisions to draw the water.
 D. Nobody has ownership over the tank or the water.

Ans A. ACBD

B. CADB

C. DABC

D. DCBA

Question ID : 441009306970

Option 1 ID : 4410091194567

Option 2 ID : 4410091194569

Option 3 ID : 4410091194568

Option 4 ID : 4410091194570

Status : Answered

Chosen Option : C

Q.10 Read the given passage carefully. Select the most appropriate option that can substitute the underlined segment in the sentence.

Robert's chest expands with victory. She glances at him to see how he is dealing with this act of being removed from the high position of authority. But his brother has a faraway smile on his face. Is he relieved? Or was he distracted by something he considers more important?

Ans A. dethronement

B. abdication

C. revolution

D. coronation

Question ID : 441009306976

Option 1 ID : 4410091194591

Option 2 ID : 4410091194592

Option 3 ID : 4410091194594

Option 4 ID : 4410091194593

Status : Answered

Chosen Option : A

Q.11 Select the most appropriate ANTONYM of the given word.

Jaded

Ans A. Weary

B. Invigorated

C. Pertinent

D. Famished

Question ID : 441009301228

Option 1 ID : 4410091172028

Option 2 ID : 4410091172030

Option 3 ID : 4410091172031

Option 4 ID : 4410091172029

Status : Not Answered

Chosen Option : --

Q.12 Select the INCORRECTLY spelt word.

- Ans A. Allocable
 B. Charioteer
 C. Contemptous
 D. Quadrillion

Question ID : 441009301295

Option 1 ID : 4410091172298

Option 2 ID : 4410091172296

Option 3 ID : 4410091172299

Option 4 ID : 4410091172297

Status : Not Answered

Chosen Option : --

Comprehension:

Read the given passage and answer the questions that follow.

Every year, the second Sunday of May is earmarked as Mother's Day. A mother is a metaphor for all that's benevolent, benign, affectionate and loving in the world. However, we've been conditioned to think that mothers are selfless – yet there have been instances of mothers being self-centered in human history.

The umbilical bond between a child and his mother is much stronger than a man's love for God. Because the Divine cannot be everywhere, He created mothers. Even divine love is often measured against a mother's love.

The way a mother relates to her child, a father cannot. There are two reasons for this: The first is a mother's love for her child, and the second is that a mother is emotionally superior to a father. She understands her child's smallest need; it's an uncanny trait, and she is telepathically bound to her offspring.

A famous adage 'the hand that rocks the cradle, rules the world' is also attributed to mothers and highlights firmness embedded in a mom's character that shapes a child's future. This love transcends entire canvas of closeness between two individuals.

SubQuestion No : 13

Q.13 Identify the tone of the passage.

- Ans A. Informative
 B. Apologetic
 C. Critical
 D. Appreciative

Question ID : 441009306807

Option 1 ID : 4410091193929

Option 2 ID : 4410091193928

Option 3 ID : 4410091193927

Option 4 ID : 4410091193930

Status : Answered

Chosen Option : D

Comprehension:

Read the given passage and answer the questions that follow.

Every year, the second Sunday of May is earmarked as Mother's Day. A mother is a metaphor for all that's benevolent, benign, affectionate and loving in the world. However, we've been conditioned to think that mothers are selfless – yet there have been instances of mothers being self-centered in human history.

The umbilical bond between a child and his mother is much stronger than a man's love for God. Because the Divine cannot be everywhere, He created mothers. Even divine love is often measured against a mother's love.

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SubQuestion No : 14

Q.14 Select the most appropriate ANTONYM of the word 'benign' as used in the passage.

- Ans A. Gracious
 B. Stable
 C. Temperate
 D. Pernicious

Question ID : 441009306808

Option 1 ID : 4410091193932

Option 2 ID : 4410091193934

Option 3 ID : 4410091193933

Option 4 ID : 4410091193931

Status : Answered

Chosen Option : A

Comprehension:

Read the given passage and answer the questions that follow.

Every year, the second Sunday of May is earmarked as Mother's Day. A mother is a metaphor for all that's benevolent, benign, affectionate and loving in the world. However, we've been conditioned to think that mothers are selfless – yet there have been instances of mothers being self-centered in human history.

The umbilical bond between a child and his mother is much stronger than a man's love for God. Because the Divine cannot be everywhere, He created mothers. Even divine love is often measured against a mother's love.

The way a mother relates to her child, a father cannot. There are two reasons for this: The first is a mother's love for her child, and the second is that a mother is emotionally superior to a father. She understands her child's smallest need; it's an uncanny trait, and she is telepathically bound to her offspring.

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SubQuestion No : 15

Q.15 Select the most appropriate synonym of the word 'uncanny' as used in the passage.

- Ans A. Skilled
 B. Enigmatical
 C. Fathomable
 D. Innovative

Question ID : 441009306809

Option 1 ID : 4410091193938

Option 2 ID : 4410091193935

Option 3 ID : 4410091193936

Option 4 ID : 4410091193937

Status : Answered

Chosen Option : B

Comprehension:

Read the given passage and answer the questions that follow.

Every year, the second Sunday of May is earmarked as Mother's Day. A mother is a metaphor for all that's benevolent, benign, affectionate and loving in the world. However, we've been conditioned to think that mothers are selfless – yet there have been instances of mothers being self-centered in human history.

The umbilical bond between a child and his mother is much stronger than a man's love for God. Because the Divine cannot be everywhere, He created mothers. Even divine love is often measured against a mother's love.

The way a mother relates to her child, a father cannot. There are two reasons for this: The first is a mother's love for her child, and the second is that a mother is emotionally superior to a father. She understands her child's smallest need; it's an uncanny trait, and she is telepathically bound to her offspring.

A famous adage 'the hand that rocks the cradle, rules the world' is also attributed to mothers and highlights firmness embedded in a mom's character that shapes a child's future. This love transcends entire canvas of closeness between two individuals.

SubQuestion No : 16

Q.16 What is the mother's love being compared to in the passage?

- Ans A. Community love
 B. Country's love
 C. Divine love
 D. Siblings' love

Question ID : 441009306810

Option 1 ID : 4410091193941

Option 2 ID : 4410091193942

Option 3 ID : 4410091193940

Option 4 ID : 4410091193939

Status : Answered

Chosen Option : C

Comprehension:

Read the given passage and answer the questions that follow.

Every year, the second Sunday of May is earmarked as Mother's Day. A mother is a metaphor for all that's benevolent, benign, affectionate and loving in the world. However, we've been conditioned to think that mothers are selfless – yet there have been instances of mothers being self-centered in human history.

The umbilical bond between a child and his mother is much stronger than a man's love for God. Because the Divine cannot be everywhere, He created mothers. Even divine love is often measured against a mother's love.

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A famous adage 'the hand that rocks the cradle, rules the world' is also attributed to mothers and highlights firmness embedded in a mom's character that shapes a child's future. This love transcends entire canvas of closeness between two individuals.

SubQuestion No : 17

Q.17 What do you understand by the statement 'the hand that rocks the cradle, rules the world' as mentioned in the passage?

- Ans
- A. The act of raising a child is as powerful as shaping the future.
 - B. Mothers are the only expert people who can rock cradles.
 - C. If one can rock a cradle, one can become a world leader.
 - D. Only women can become powerful leaders

Question ID : 441009306811
Option 1 ID : 4410091193945
Option 2 ID : 4410091193944
Option 3 ID : 4410091193946
Option 4 ID : 4410091193943

Status : Answered

Chosen Option : A

Section : Quantitative Aptitude

Q.1 The number of students absent in a class was recorded every day for 120 days and the information is given in the following frequency table. Find the mean number of students absent per day.

Number of students absent	Number of days
0	1
1	4
2	10
3	50
4	34
5	15
6	4
7	2
Total	120

- Ans
- A. 5.525
 - B. 2.525
 - C. 4.525
 - D. 3.525

Question ID : 441009345457
 Option 1 ID : 4410091347778
 Option 2 ID : 4410091347775
 Option 3 ID : 4410091347777
 Option 4 ID : 4410091347776
 Status : Answered
 Chosen Option : D

Q.2 The average run rate of an ODI cricket match in the first 10 overs of a match is 6.5 runs. What should be the run rate (in runs) in the remaining 40 overs to reach the target of 350 runs?

- Ans
- A. 6.125
 - B. 8.125
 - C. 7.125
 - D. 5.125

Question ID : 441009326898
 Option 1 ID : 4410091273957
 Option 2 ID : 4410091273959
 Option 3 ID : 4410091273958
 Option 4 ID : 4410091273956
 Status : Answered
 Chosen Option : C

Q.3 The profit percentage earned by selling an item for ₹7,680 is equal to the loss percentage incurred by selling the same item for ₹5,120. At what price should this item be sold to earn 30% profit?

- Ans
- A. ₹8,340
 - B. ₹8,360
 - C. ₹8,320
 - D. ₹8,300

Question ID : 441009341317
 Option 1 ID : 4410091331261
 Option 2 ID : 4410091331262
 Option 3 ID : 4410091331260
 Option 4 ID : 4410091331259
 Status : Not Answered
 Chosen Option : --

Q.4 Anjali is twice as efficient as Bikas and therefore she is able to complete a task in 120 days less than Bikas. If they work together, they can complete the task in:

- Ans A. 80 days
 B. 70 days
 C. 100 days
 D. 90 days

Question ID : 441009348028
 Option 1 ID : 4410091358433
 Option 2 ID : 4410091358432
 Option 3 ID : 4410091358435
 Option 4 ID : 4410091358434
 Status : Not Answered
 Chosen Option : --

Q.5 A sector of a circle with a radius of 6.2 cm has a perimeter of 18.4 cm. The area of the sector is:505

- Ans A. 17.9 cm²
 B. 18.6 cm²
 C. 18.1 cm²
 D. 19.5 cm²

Question ID : 4410091117062
 Option 1 ID : 4410094404136
 Option 2 ID : 4410094404138
 Option 3 ID : 4410094404137
 Option 4 ID : 4410094404139
 Status : Answered
 Chosen Option : B

Q.6 An eight digit number 7325a61b is divisible by 90. What is the value of $\frac{a+b}{a}$?

- Ans A. 3
 B. 2
 C. 0
 D. 1

Question ID : 441009336723
 Option 1 ID : 4410091312919
 Option 2 ID : 4410091312918
 Option 3 ID : 4410091312916
 Option 4 ID : 4410091312917
 Status : Answered
 Chosen Option : D

Q.7 A vendor sold an item with 10% profit. If the item had been purchased at 15% less and sold for ₹33 less, then he would have earned 10% profit. For how much did the vendor originally purchase the item?

- Ans A. ₹198
 B. ₹220
 C. ₹215
 D. ₹200

Question ID : 441009335772
Option 1 ID : 4410091309067
Option 2 ID : 4410091309070
Option 3 ID : 4410091309069
Option 4 ID : 4410091309068
Status : Not Answered
Chosen Option : --

Q.8 Akash marks his goods 20% above the cost price and allows his customers a 15% discount on their bills. Calculate the percentage profit made by him.

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

Question ID : 441009342652
Option 1 ID : 4410091336594
Option 2 ID : 4410091336592
Option 3 ID : 4410091336593
Option 4 ID : 4410091336591
Status : Not Answered
Chosen Option : --

Q.9 A sheet of an area of 500 m^2 is made out of unit cubic meter of a metal. Find the thickness of the sheet.

- Ans A. $\frac{1}{6}$ cm
 B. $\frac{1}{5}$ cm
 C. $\frac{1}{5}$ m
 D. $\frac{1}{4}$ cm

Question ID : 4410091117135
Option 1 ID : 4410094404430
Option 2 ID : 4410094404428
Option 3 ID : 4410094404429
Option 4 ID : 4410094404431
Status : Answered
Chosen Option : B

Q.10 If $\cos \theta = \frac{8}{10}$, where θ is an acute angle, then find the value of $\sin \theta(1 - \tan \theta)$.539

- Ans
- A. $\frac{3}{16}$
 - B. $\frac{7}{16}$
 - C. $\frac{7}{20}$
 - D. $\frac{3}{20}$

Question ID : 4410091117096

Option 1 ID : 4410094404273

Option 2 ID : 4410094404272

Option 3 ID : 4410094404274

Option 4 ID : 4410094404275

Status : Answered

Chosen Option : D

Q.11 The speed of a bus is 30 m/s. What will be the time taken by the bus to cover a distance of 432 km?

- Ans
- A. 4 hours
 - B. 6 hours
 - C. 7 hours
 - D. 5 hours

Question ID : 441009352604

Option 1 ID : 4410091376675

Option 2 ID : 4410091376677

Option 3 ID : 4410091376678

Option 4 ID : 4410091376676

Status : Answered

Chosen Option : A

Q.12 Find the LCM of the given fractions: $\frac{9}{5}$, $\frac{6}{7}$ and $\frac{8}{11}$.

- Ans
- A. 36
 - B. 72
 - C. 48
 - D. 64

Question ID : 441009353705

Option 1 ID : 4410091381057

Option 2 ID : 4410091381055

Option 3 ID : 4410091381054

Option 4 ID : 4410091381056

Status : Not Answered

Chosen Option : --

Q.13 The sum of three numbers is 345. If the ratio of the first to the second is 3 : 4 and that of the second to the third is 7 : 5, then find the second number.

- Ans A. 140
 B. 120
 C. 130
 D. 150

Question ID : 441009343937
 Option 1 ID : 4410091341704
 Option 2 ID : 4410091341702
 Option 3 ID : 4410091341703
 Option 4 ID : 4410091341705
 Status : Answered
 Chosen Option : A

Q.14 Two trains, M and N, running in opposite directions, cross a man standing on the platform in 54 seconds and 34 seconds, respectively, and they cross each other in 46 seconds. What will be the ratio of their speeds?

- Ans A. 3 : 4
 B. 1 : 2
 C. 3 : 2
 D. 5 : 2

Question ID : 441009353660
 Option 1 ID : 4410091380881
 Option 2 ID : 4410091380878
 Option 3 ID : 4410091380879
 Option 4 ID : 4410091380880
 Status : Not Answered
 Chosen Option : --

Q.15 The curved surface area of a cylinder having radius 12 cm and height 40 cm is:471

- Ans A. $899 \pi \text{ cm}^2$
 B. $1008 \pi \text{ cm}^2$
 C. $1031 \pi \text{ cm}^2$
 D. $960 \pi \text{ cm}^2$

Question ID : 4410091117028
 Option 1 ID : 4410094404001
 Option 2 ID : 4410094404003
 Option 3 ID : 4410094404002
 Option 4 ID : 4410094404000
 Status : Answered
 Chosen Option : D

Q.16 The cost of 80 notebooks of the same type is ₹2048. How many such notebooks can be purchased for ₹614.40?

- Ans A. 22
 B. 26
 C. 28
 D. 24

Question ID : 441009336739
Option 1 ID : 4410091312983
Option 2 ID : 4410091312981
Option 3 ID : 4410091312980
Option 4 ID : 4410091312982
Status : Answered
Chosen Option : D

Q.17 The expenditure of Abhinav is 15% more than his savings. If he saves ₹16,000 every month, what is 10% of his monthly income?

- Ans A. ₹3,440
 B. ₹3,340
 C. ₹4,440
 D. ₹5,440

Question ID : 441009338796
Option 1 ID : 4410091321160
Option 2 ID : 4410091321161
Option 3 ID : 4410091321162
Option 4 ID : 4410091321163
Status : Not Answered
Chosen Option : --

Q.18 Which of the options below is equivalent to $512x^3 + 64y^3 + 768x^2y + 384xy^2$

- Ans A. $(8x + 4y)^3$
 B. $(10x + 4y)^3$
 C. $(8x + 7y)^3$
 D. $(4x + 8y)^3$

Question ID : 4410091124009
Option 1 ID : 4410094431597
Option 2 ID : 4410094431599
Option 3 ID : 4410094431600
Option 4 ID : 4410094431598
Status : Answered
Chosen Option : A

Q.19 Find the circumference (in m) of the largest circle that can be inscribed in a rectangle whose dimensions are given as 196 m and 126 m.

$$\text{take } \pi = \frac{22}{7} \times 230$$

- Ans A. 400
 B. 396
 C. 394
 D. 392

Question ID : 4410091116787
 Option 1 ID : 4410094403038
 Option 2 ID : 4410094403036
 Option 3 ID : 4410094403037
 Option 4 ID : 4410094403039

Status : Answered

Chosen Option : B

Q.20 Aarav, Ben and Clara started a business by making certain investments. If three times Aarav's investment equals four times Ben's investment, and Ben invested twice as much as Clara, then in what ratio should they share the profits, assuming they invested for the same period?

- Ans A. 8 : 6 : 3
 B. 7 : 5 : 2
 C. 6 : 4 : 1
 D. 9 : 7 : 4

Question ID : 441009333668
 Option 1 ID : 4410091300641
 Option 2 ID : 4410091300644
 Option 3 ID : 4410091300642
 Option 4 ID : 4410091300643

Status : Not Answered

Chosen Option : --

Q.21 If the equation $2x^2 + kx + 4 = 0$, $k > 0$, has real and equal roots, then the value of k satisfies the equation:⁴⁵

- Ans A. $k^2 - \sqrt{3}k - 976 = 0$
 B. $2k^2 - \sqrt{5}k - 1024 = 0$
 C. $2k^2 + \sqrt{11}k - 1024 = 0$
 D. $k^2 - \sqrt{2}k - 24 = 0$

Question ID : 4410091123939
 Option 1 ID : 4410094431318
 Option 2 ID : 4410094431320
 Option 3 ID : 4410094431319
 Option 4 ID : 4410094431317

Status : Not Answered

Chosen Option : --

Q.22 If a number is increased by 20% and subsequently decreased by 20%, then what will be the net percentage change in the number?

- Ans
- A. 4%, increase
 - B. 1%, increase
 - C. 1%, decrease
 - D. 4%, decrease

Question ID : 441009339207
 Option 1 ID : 4410091322883
 Option 2 ID : 4410091322882
 Option 3 ID : 4410091322885
 Option 4 ID : 4410091322884
 Status : Answered
 Chosen Option : D

Q.23 Akash invested a sum of money at compound interest, compounded annually. It amounted to ₹4,840 in 2 years and to ₹5,280 in 3 years. Find the rate of interest per cent per annum, correct to two decimal places.

- Ans
- A. 10.9%
 - B. 8.09%
 - C. 9.09%
 - D. 11.09%

Question ID : 441009333860
 Option 1 ID : 4410091301387
 Option 2 ID : 4410091301385
 Option 3 ID : 4410091301386
 Option 4 ID : 4410091301388
 Status : Not Answered
 Chosen Option : --

Q.24 Evaluate the given expression.

$$\left[\left\{ (375 \times 2220 \div 111 + 100) \times 34 \right\} \div 15200 \right] \times \frac{4}{5}$$

- Ans
- A. 15.6
 - B. 12.6
 - C. 13.6
 - D. 14.6

Question ID : 441009336843
 Option 1 ID : 4410091313395
 Option 2 ID : 4410091313392
 Option 3 ID : 4410091313393
 Option 4 ID : 4410091313394
 Status : Not Answered
 Chosen Option : --

Q.25 Abhilash, Bhaskar, and Chandrika can do a work in 25, 15, and 45 days respectively. How much time would they take to finish the work together?

- Ans
- A. $9\frac{18}{29}$ days
 - B. $8\frac{22}{29}$ days
 - C. $8\frac{20}{29}$ days
 - D. $7\frac{22}{29}$ days

Question ID : 441009348011
 Option 1 ID : 4410091358366
 Option 2 ID : 4410091358367
 Option 3 ID : 4410091358365
 Option 4 ID : 4410091358364
 Status : Not Answered
 Chosen Option : --

Q.26 A metallic pipe of length 6 metres weighs 15.2 kg. What will be the weight of the same type of 14.4-metre long pipe?

- Ans
- A. 35.48 kg
 - B. 31.46 kg
 - C. 36.48 kg
 - D. 34.56 kg

Question ID : 441009343757
 Option 1 ID : 4410091341018
 Option 2 ID : 4410091341016
 Option 3 ID : 4410091341019
 Option 4 ID : 4410091341017
 Status : Answered
 Chosen Option : C

Q.27 A train covers a certain distance with a speed of 108 km/hr and returns back with a speed of 112 km/hr. Find the average speed of the train for the entire journey.

- Ans
- A. $112\frac{54}{55}$ km/hr
 - B. $110\frac{53}{55}$ km/hr
 - C. $113\frac{54}{55}$ km/hr
 - D. $109\frac{53}{55}$ km/hr

Question ID : 441009351052
 Option 1 ID : 4410091370572
 Option 2 ID : 4410091370571
 Option 3 ID : 4410091370573
 Option 4 ID : 4410091370570
 Status : Not Answered
 Chosen Option : --

Q.28 Find the mode of the marks given below, obtained by 20 students in a Mathematics test.

22, 25, 30, 29, 25, 25, 26, 24, 29, 25, 30, 22, 25, 27, 25, 28, 29, 30, 25, 24

- Ans A. 26
 B. 24
 C. 27
 D. 25

Question ID : 441009346095
Option 1 ID : 4410091350419
Option 2 ID : 4410091350417
Option 3 ID : 4410091350420
Option 4 ID : 4410091350418
Status : Not Answered
Chosen Option : --

Q.29 The cost of 5 pens and 6 pencils is ₹188 and the cost of 3 pens and 4 pencils ₹122. The cost of 8 pens and 3 pencils is:33

- Ans A. ₹145
 B. ₹149
 C. ₹151
 D. ₹146

Question ID : 4410091123927
Option 1 ID : 4410094431270
Option 2 ID : 4410094431269
Option 3 ID : 4410094431271
Option 4 ID : 4410094431272
Status : Not Answered
Chosen Option : --

Q.30 The printed price of a chair is ₹1800 but the retailer gets a discount of 25% on this price. The retailer then sells the chair on some profit for ₹2000. What is the retailer's profit percentage? (Answer rounded off to two decimal places.)

- Ans A. 18.15%
 B. 38.15%
 C. 28.15%
 D. 48.15%

Question ID : 441009343157
Option 1 ID : 4410091338614
Option 2 ID : 4410091338612
Option 3 ID : 4410091338613
Option 4 ID : 4410091338611
Status : Not Answered
Chosen Option : --

Q.31 In the month of May, the balance in the bank account for 22 days was ₹900, for 6 days it was ₹1,150 and for 3 days it was ₹425. What is the average balance for the month of May? Write your answer correct to the nearest paise.

- Ans A. ₹602.42
 B. ₹902.42
 C. ₹502.42
 D. ₹1,002.42

Question ID : 441009329053
 Option 1 ID : 4410091282626
 Option 2 ID : 4410091282625
 Option 3 ID : 4410091282624
 Option 4 ID : 4410091282627
 Status : Not Answered
 Chosen Option : --

Q.32 If a and b are the roots of $x^2 - 10x + 25=0$, then a quadratic equation whose roots are a^2 and b^2 is:

- Ans A. $x^2 - 50x + 625 = 0$
 B. $x^2 + 50x - 625 = 0$
 C. $x^2 + 50x + 625 = 0$
 D. $x^2 - 50x - 625 = 0$

Question ID : 4410091123946
 Option 1 ID : 4410094431345
 Option 2 ID : 4410094431347
 Option 3 ID : 4410094431348
 Option 4 ID : 4410094431346
 Status : Not Answered
 Chosen Option : --

Q.33 Two varieties of pulses worth ₹110 per kg and ₹140 per kg are mixed with a third variety in the ratio 2 : 1 : 2. If the mixture is worth ₹150 per kg, the price of the third variety per kg will be:

- Ans A. ₹205
 B. ₹165
 C. ₹185
 D. ₹195

Question ID : 441009329724
 Option 1 ID : 4410091285333
 Option 2 ID : 4410091285330
 Option 3 ID : 4410091285331
 Option 4 ID : 4410091285332
 Status : Not Answered
 Chosen Option : --

Q.34 A and B invested a total of ₹13,010 on compound interest at the rate of 4% per annum. A invested for $6\frac{1}{2}$ years and B invested for $8\frac{1}{2}$ years. If they receive the same amount after $6\frac{1}{2}$ and $8\frac{1}{2}$ years, respectively, then what was the investment of A and B, respectively?

- Ans
- A. ₹6,860 and ₹6,350
 - B. ₹6,766 and ₹6,255
 - C. ₹6,760 and ₹6,250
 - D. ₹6,750 and ₹6,260

Question ID : 441009336016
 Option 1 ID : 4410091310128
 Option 2 ID : 4410091310127
 Option 3 ID : 4410091310126
 Option 4 ID : 4410091310129
 Status : Not Answered
 Chosen Option : --

Section : Intellectual Potential Test

Q.1 Three of the following four word-pairs are alike in a certain way and thus form a group. Which word-pair DOES NOT belong to that group?

- Ans
- A. Careful-Careless
 - B. Brave-Coward
 - C. Freedom-Captivity
 - D. Funny-Humorous

Question ID : 4410091145858
 Option 1 ID : 4410094518389
 Option 2 ID : 4410094518388
 Option 3 ID : 4410094518390
 Option 4 ID : 4410094518391
 Status : Answered
 Chosen Option : D

Q.2 This question is based on the five, three-digit numbers given below.

(Left) 237 496 291 674 384 (Right)

(Example: 697 – First digit = 6, second digit = 9 and third digit = 7)
 (NOTE: All operations to be done from left to right.)

What will be the resultant if the third digit of the highest number is added to the third digit of the lowest number?¹⁵⁴

- Ans
- A. 10
 - B. 9
 - C. 11
 - D. 8

Question ID : 4410091144949
 Option 1 ID : 4410094514754
 Option 2 ID : 4410094514753
 Option 3 ID : 4410094514755
 Option 4 ID : 4410094514752
 Status : Answered
 Chosen Option : C

Q.3 In a certain code language,

'A + B' means 'A is the son of B',
'A - B' means 'A is the brother of B',
'A x B' means 'A is the wife of B' and
'A ÷ B' means 'A is the father of B'.

How is M related to Q if 'M + N ÷ O - P x Q'?

- Ans A. Wife's father
 B. Father
 C. Wife's brother
 D. Brother

Question ID : 4410091146318
Option 1 ID : 4410094520229
Option 2 ID : 4410094520231
Option 3 ID : 4410094520228
Option 4 ID : 4410094520230
Status : Not Answered
Chosen Option : --

Q.4 B,C,D,S,T,U and V are sitting around a circular table facing the centre of the table. U sits to the immediate right of D. Only three people sit between U and T when counted from the left of U. Only three people sit between D and V. S sits to the immediate right of C. How many people sit between D and C when counted from the right of C? 1223

- Ans A. Three
 B. Four
 C. One
 D. Two

Question ID : 4410091146018
Option 1 ID : 4410094519030
Option 2 ID : 4410094519031
Option 3 ID : 4410094519028
Option 4 ID : 4410094519029
Status : Not Answered
Chosen Option : --

Q.5 IGEB is related to CAYV in a certain way based on the English alphabetical order. In the same way, OMKH is related to IGEB. To which of the given options is AYWT related, following the same logic? 1027

- Ans A. URPN
 B. USPN
 C. UTPS
 D. USQN

Question ID : 4410091145822
Option 1 ID : 4410094518246
Option 2 ID : 4410094518247
Option 3 ID : 4410094518245
Option 4 ID : 4410094518244
Status : Answered
Chosen Option : D

Q.6 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 forests are rocks. All rocks are lakes.

Conclusion (I): some rocks are forests.
Conclusion (II): All forests are lakes. 2008

- Ans**
- A. Only conclusion (II) follows
 - B. Only conclusion (I) follows
 - C. Neither conclusion (I) nor (II) follows
 - D. Both conclusions (I) and (II) follow

Question ID : 4410091146803

Option 1 ID : 4410094522169

Option 2 ID : 4410094522168

Option 3 ID : 4410094522171

Option 4 ID : 4410094522170

Status : Answered

Chosen Option : A

Q.7 Based on the English alphabetical order, three of the following four letter cluster pairs are alike in a certain way and thus form a group. Which is the one that does not belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter cluster)¹¹⁰⁶

- Ans**
- A. MQ - PT
 - B. EI - HL
 - C. KM - QR
 - D. CG - FJ

Question ID : 4410091145901

Option 1 ID : 4410094518561

Option 2 ID : 4410094518560

Option 3 ID : 4410094518563

Option 4 ID : 4410094518562

Status : Answered

Chosen Option : C

Q.8 Based on the English alphabetical order, three of the following four letter cluster pairs are alike in a certain way and thus form a group. Which is the one that does not belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter cluster)¹¹⁰⁴

- Ans**
- A. CE - YA
 - B. FE - HK
 - C. HJ - DF
 - D. PR - LN

Question ID : 4410091145899

Option 1 ID : 4410094518554

Option 2 ID : 4410094518555

Option 3 ID : 4410094518552

Option 4 ID : 4410094518553

Status : Answered

Chosen Option : B

Q.9 Refer to the following letter, number and symbol series and answer the question that follows. Counting to be done from left to right. (All numbers are single-digit numbers only)

(Left) & T % 6 7 D 4 @ G C R Y # 3 K & 5 E * S 2 (Right)

How many such symbols are there that are immediately preceded by a number and also immediately followed by a letter?

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

Question ID : 4410091146923
 Option 1 ID : 4410094522649
 Option 2 ID : 4410094522651
 Option 3 ID : 4410094522648
 Option 4 ID : 4410094522650
 Status : Answered
 Chosen Option : C

Q.10 What should come in place of the question mark (?) in the given series?

71 80 96 121 ? 206

- Ans A. 157
 B. 158
 C. 159
 D. 156

Question ID : 441009283688
 Option 1 ID : 4410091101860
 Option 2 ID : 4410091101861
 Option 3 ID : 4410091101862
 Option 4 ID : 4410091101859
 Status : Answered
 Chosen Option : A

Q.11 Seven students H, O, P, E, F, U and L are sitting around a circular table, facing the centre. Only U sits between H and L. L sits third to the left of O. F sits to the immediate left of O. P is not an immediate neighbour of L. Who sits second to the right of E? 1437

- Ans A. F
 B. O
 C. P
 D. H

Question ID : 4410091146232
 Option 1 ID : 4410094519887
 Option 2 ID : 4410094519884
 Option 3 ID : 4410094519885
 Option 4 ID : 4410094519886
 Status : Not Answered
 Chosen Option : --

Q.12 Suresh ranked 13th from the bottom and 19th from the top in his class. How many students are there in his class?¹²⁹²

- Ans
- A. 30
 - B. 33
 - C. 31
 - D. 32

Question ID : 4410091146087
 Option 1 ID : 4410094519304
 Option 2 ID : 4410094519307
 Option 3 ID : 4410094519305
 Option 4 ID : 4410094519306
 Status : Answered
 Chosen Option : C

Q.13 Select the triad that follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

HL-PT-XB
 OS-WA-EI

- Ans
- A. VZ-DH-LP
 - B. VZ-DH-SD
 - C. VZ-DH-WS
 - D. VZ-DH-KL

Question ID : 4410091146388
 Option 1 ID : 4410094520508
 Option 2 ID : 4410094520510
 Option 3 ID : 4410094520511
 Option 4 ID : 4410094520509
 Status : Answered
 Chosen Option : A

Q.14 If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 725321, what will be the sum of the digits which are second from the left and second from the right?

- Ans
- A. 0
 - B. 4
 - C. 6
 - D. 2

Question ID : 4410091126168
 Option 1 ID : 4410094440217
 Option 2 ID : 4410094440216
 Option 3 ID : 4410094440218
 Option 4 ID : 4410094440215
 Status : Answered
 Chosen Option : A

Q.15 Seven people, A, B, C, D, E, F and G, are sitting in a row, facing north. No one sits to the right of C. Only three people sit between C and F. Only two people sit between F and D. A sits third to the left of G. B sits to the immediate right of G. How many people sit between B and E? ¹⁴⁸⁵

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

Question ID : 4410091146280
 Option 1 ID : 4410094520079
 Option 2 ID : 4410094520077
 Option 3 ID : 4410094520076
 Option 4 ID : 4410094520078
 Status : Not Answered
 Chosen Option : --

Q.16 Seven boxes, P, R, O, M, I, S and E, are kept one over the other, but not necessarily in the same order. Only two boxes are kept below O. E is kept immediately above O and immediately below R. Only one box is kept between R and I. M is kept immediately below P. How many boxes are kept between S and P?

- Ans
- A. Two
 - B. One
 - C. Four
 - D. Three

Question ID : 4410091146781
 Option 1 ID : 4410094522081
 Option 2 ID : 4410094522080
 Option 3 ID : 4410094522083
 Option 4 ID : 4410094522082
 Status : Not Answered
 Chosen Option : --

Q.17 A, B, C, D, E and F live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it, number 2 and so on till the topmost floor is numbered 6. F lives on an odd numbered floor but not 3. The sum of floors on which F and E live is 7. C lives immediately below B. A lives on the top floor. How many people live between D and F? ¹⁰⁵⁸

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

Question ID : 4410091145853
 Option 1 ID : 4410094518371
 Option 2 ID : 4410094518370
 Option 3 ID : 4410094518369
 Option 4 ID : 4410094518368
 Status : Not Answered
 Chosen Option : --

Q.18 Two sets of numbers are given below. In each set of numbers, certain mathematical operation(s) on the first number result(s) in the second number. Similarly, certain mathematical operation(s) on the second number result(s) in the third number and so on. Which of the given options follows the same set of operations as in the given sets? (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 to/subtracting from/multiplying with 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

10-15-225-275; 13-18-324-374

- Ans A. 12-17-289-338
 B. 9-14-196-246
 C. 11-16-256-270
 D. 14-19-361-401

Question ID : 4410091125668
 Option 1 ID : 4410094438215
 Option 2 ID : 4410094438218
 Option 3 ID : 4410094438216
 Option 4 ID : 4410094438217
 Status : Answered
 Chosen Option : B

Q.19 Country B is to the north of Country C. Country D is to the south of Country A. Country E is to the east of Country C. If Country A is to the west of Country B, what is the direction of Country E with respect to Country A? ¹²⁰³

- Ans A. North-west
 B. North-east
 C. South-west
 D. South-east

Question ID : 4410091145998
 Option 1 ID : 4410094518948
 Option 2 ID : 4410094518949
 Option 3 ID : 4410094518950
 Option 4 ID : 4410094518951
 Status : Answered
 Chosen Option : D

Q.20 If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 6378415, what will be the sum of the digits that are second from the left and second from the right in the new number thus formed?

- Ans A. 2
 B. 4
 C. 5
 D. 6

Question ID : 4410091125981
 Option 1 ID : 4410094439467
 Option 2 ID : 4410094439468
 Option 3 ID : 4410094439469
 Option 4 ID : 4410094439470
 Status : Answered
 Chosen Option : D

Q.21 Select the triad that follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

FH-JL-NP
OQ-SU-WY

- Ans A. XZ-BD-FH
 B. XZ-BD-WS
 C. XZ-BD-KL
 D. XZ-BD-YH

Question ID : 4410091146385

Option 1 ID : 4410094520496

Option 2 ID : 4410094520498

Option 3 ID : 4410094520497

Option 4 ID : 4410094520499

Status : Answered

Chosen Option : A

Q.22 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 their constituent digits. E.g. 13 – Operations on 13 such as adding to/subtracting from/multiplying with 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(16, 19, 57)
(17, 21, 84)

- Ans A. (19, 23, 90)
 B. (8, 19, 187)
 C. (8, 19, 209)
 D. (4, 13, 189)

Question ID : 4410091125731

Option 1 ID : 4410094438470

Option 2 ID : 4410094438469

Option 3 ID : 4410094438467

Option 4 ID : 4410094438468

Status : Not Answered

Chosen Option : --

Q.23 If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 235787, what will be the sum of the digits which are second from the left and second from the right in the new number thus formed?

- Ans A. 10
 B. 4
 C. 3
 D. 6

Question ID : 4410091126170

Option 1 ID : 4410094440225

Option 2 ID : 4410094440224

Option 3 ID : 4410094440226

Option 4 ID : 4410094440223

Status : Answered

Chosen Option : A

Q.24 Read the given statement(s) 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 statement(s).

Statements:

All desktops are laptops.
All laptops are phones.
Some desktops are computers.

Conclusions:

(I) Some laptops are computers.
(II) Some phones are computers.1053

- Ans A. Only I follows
 B. Only II follows
 C. Both follow
 D. Neither follows

Question ID : 4410091145848

Option 1 ID : 4410094518349

Option 2 ID : 4410094518350

Option 3 ID : 4410094518348

Option 4 ID : 4410094518351

Status : Answered

Chosen Option : D

Q.25 What should come in place of the question mark (?) in the given series based on the English alphabetical order?

MIK NJL OKM PLN ?

- Ans A. MQO
 B. MOQ
 C. QMO
 D. QOM

Question ID : 4410091146894

Option 1 ID : 4410094522533

Option 2 ID : 4410094522532

Option 3 ID : 4410094522535

Option 4 ID : 4410094522534

Status : Answered

Chosen Option : C

Q.26 In a certain code language,

'A + B' means 'A is the son of B',
'A - B' means 'A is the brother of B',
'A × B' means 'A is the wife of B' and
'A ÷ B' means 'A is the father of B'.

How is M related to Q if 'M + N × O - P ÷ Q'?

- Ans A. Mother's sister's son
 B. Mother's brother's son
 C. Father's sister's son
 D. Father's brother's son

Question ID : 4410091146321

Option 1 ID : 4410094520243

Option 2 ID : 4410094520242

Option 3 ID : 4410094520241

Option 4 ID : 4410094520240

Status : Not Answered

Chosen Option : --

Q.27 5 is related to 16 following a certain logic. Following the same logic, 12 is related to 121.
To which of the given options is 7 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 to/subtracting from/multiplying with 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

- Ans A. 36
 B. 16
 C. 25
 D. 49

Question ID : 4410091125756
 Option 1 ID : 4410094438568
 Option 2 ID : 4410094438570
 Option 3 ID : 4410094438569
 Option 4 ID : 4410094438567
 Status : Answered
 Chosen Option : A

Q.28 In a certain code,

'open the door fast' is coded as 'ka nc te ri',
 'nothing there happens fast' is coded as 'px mo ka lc' and
 'there is big door' is coded as 'te na vu lc'.
 (All the codes are two-letter codes only.)

What is the possible code for 'country is big'?

- Ans A. la te ri
 B. vu ka px
 C. vu na wq
 D. te ka nc

Question ID : 4410091146606
 Option 1 ID : 4410094521382
 Option 2 ID : 4410094521381
 Option 3 ID : 4410094521380
 Option 4 ID : 4410094521383
 Status : Answered
 Chosen Option : C

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

TNP SMO RLN QKM ?

- Ans A. JLP
 B. JPL
 C. PLJ
 D. PJL

Question ID : 4410091146893
 Option 1 ID : 4410094522528
 Option 2 ID : 4410094522529
 Option 3 ID : 4410094522531
 Option 4 ID : 4410094522530
 Status : Answered
 Chosen Option : D

Q.30 This question is based on the five, three-digit numbers given below.

(Left) 624 483 527 391 276 (Right)

(Example: 697 – First digit = 6, second digit = 9 and third digit = 7)
(NOTE: All operations to be done from left to right.)

What will be the resultant if the second digit of the second highest number is added to the third digit of the lowest number?¹⁵³

- Ans A. 6
 B. 8
 C. 7
 D. 5

Question ID : 4410091144948
 Option 1 ID : 4410094514749
 Option 2 ID : 4410094514751
 Option 3 ID : 4410094514750
 Option 4 ID : 4410094514748
 Status : Answered
 Chosen Option : B

Q.31 If 1 is added to each even digit and 2 is subtracted from each odd digit in the number 8923457, which of the following digits will be second from the left in the new number thus formed?

- Ans A. 7
 B. 4
 C. 6
 D. 5

Question ID : 4410091125976
 Option 1 ID : 4410094439450
 Option 2 ID : 4410094439447
 Option 3 ID : 4410094439449
 Option 4 ID : 4410094439448
 Status : Answered
 Chosen Option : A

Q.32 Refer to the following letter and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) E O © I L £ R @ L % T & X \$ # Z © % @ @ # T (Right)

How many such symbols are there each of which is immediately preceded by a letter and also immediately followed by a letter?¹³⁷

- Ans A. 6
 B. 5
 C. 7
 D. 4

Question ID : 4410091144932
 Option 1 ID : 4410094514685
 Option 2 ID : 4410094514684
 Option 3 ID : 4410094514687
 Option 4 ID : 4410094514686
 Status : Answered
 Chosen Option : B

Q.33 What should come in place of the question mark (?) in the given series?

74 56 92 38 110 ?

- Ans A. 32
 B. 24
 C. 28
 D. 20

Question ID : 441009283670
Option 1 ID : 4410091101786
Option 2 ID : 4410091101784
Option 3 ID : 4410091101785
Option 4 ID : 4410091101783
Status : Answered
Chosen Option : D

Q.34 In a certain code language, 'TAPE' is coded as '3168' and 'PANT' is coded as '6483'.
What is the code for 'N' in the given code language?

- Ans A. 4
 B. 6
 C. 3
 D. 8

Question ID : 4410091146332
Option 1 ID : 4410094520285
Option 2 ID : 4410094520286
Option 3 ID : 4410094520284
Option 4 ID : 4410094520287
Status : Answered
Chosen Option : D

Section : Domain Knowledge

Q.1 For designing purpose an extremely useful property of a material, the modulus of resilience is:

- Ans A. Minimum strain energy stored per unit volume
 B. Proof resilience per unit length
 C. Strain energy per unit length
 D. Maximum strain energy stored per unit volume

Question ID : 441009273863
Option 1 ID : 4410091063797
Option 2 ID : 4410091063795
Option 3 ID : 4410091063796
Option 4 ID : 4410091063794
Status : Answered
Chosen Option : D

Q.2 The wall thickness of a thin spherical shell is "T" and the radius of the shell is R, then the ratio of R/T as per the theory of thin-shell should be:

- Ans A. More than 5 but less than 7
 B. More than 2 but less than 5
 C. Less than 8
 D. More than 10

Question ID : 441009301200
Option 1 ID : 4410091171917
Option 2 ID : 4410091171916
Option 3 ID : 4410091171918
Option 4 ID : 4410091171919
Status : Not Answered
Chosen Option : --

Q.3 What is the primary focus of analytical inspection in gear measurement?

- Ans A. Measuring individual gear parameters like tooth profile and pitch
 B. Checking gear lubrication levels
 C. Assessing noise and vibration during operation
 D. Evaluating gear performance under load

Question ID : 441009265113
Option 1 ID : 4410091030481
Option 2 ID : 4410091030483
Option 3 ID : 4410091030482
Option 4 ID : 4410091030480
Status : Answered
Chosen Option : A

Q.4 Which of the following is a limitation of a sine bar?

- Ans A. Not suitable for small angles
 B. Can only measure length
 C. Can only measure up to 45° accurately
 D. Cannot be used with slip gauges

Question ID : 441009264859
Option 1 ID : 4410091029479
Option 2 ID : 4410091029478
Option 3 ID : 4410091029480
Option 4 ID : 4410091029481
Status : Answered
Chosen Option : C

Q.5 Which of the following best explains why a simple carburetor tends to deliver a progressively richer mixture at higher throttle openings?

- Ans A. The float chamber overflows due to higher suction pressure at high throttle positions.
- B. Air density decreases with increasing flow while fuel density remains constant, leading to more fuel relative to air.
- C. Fuel density increases while air density decreases with increasing pressure differential.
- D. The throttle valve restricts fuel flow more than air at higher speeds.

Question ID : 441009272781
 Option 1 ID : 4410091059674
 Option 2 ID : 4410091059673
 Option 3 ID : 4410091059672
 Option 4 ID : 4410091059671
 Status : Answered
 Chosen Option : A

Q.6 A parallel fillet type welding joints are designed specially for:

- Ans A. Shear strength
- B. Tensile strength only
- C. Tensile and Compressive strength
- D. Compressive strength only

Question ID : 441009325455
 Option 1 ID : 4410091268134
 Option 2 ID : 4410091268132
 Option 3 ID : 4410091268135
 Option 4 ID : 4410091268133
 Status : Answered
 Chosen Option : C

Q.7 When a follower moves with simple harmonic motion, where does the follower experience maximum acceleration in a cam and follower mechanism?

- Ans A. At the beginning and end of the stroke
- B. At the beginning of the stroke
- C. In the middle of the stroke
- D. At the highest position only

Question ID : 441009339975
 Option 1 ID : 4410091325943
 Option 2 ID : 4410091325941
 Option 3 ID : 4410091325942
 Option 4 ID : 4410091325944
 Status : Answered
 Chosen Option : D

Q.8 When does the shoe in a centrifugal clutch move outward to engage the driven member?

- Ans A. When the spring force exceeds the centrifugal force
 B. When the shoe is stationary and not moving
 C. When centrifugal force is greater than spring force
 D. When centrifugal force is equal to spring force

Question ID : 441009339896
Option 1 ID : 4410091325621
Option 2 ID : 4410091325624
Option 3 ID : 4410091325623
Option 4 ID : 4410091325622
Status : Answered
Chosen Option : C

Q.9 Which of the following is an advantage of using a multistage air compressor?

- Ans A. It reduces the overall size and weight of the compressor.
 B. It causes uncontrolled temperature rise in air.
 C. It requires more work input for the same pressure ratio.
 D. It uses fewer mechanical components than a single-stage compressor.

Question ID : 441009272913
Option 1 ID : 4410091060201
Option 2 ID : 4410091060200
Option 3 ID : 4410091060199
Option 4 ID : 4410091060202
Status : Not Answered
Chosen Option : --

Q.10 Pre-planning production ends at:

- Ans A. dispatching the finished product
 B. the quality control department
 C. the manufacturer's site
 D. the consumer

Question ID : 441009249333
Option 1 ID : 441009971203
Option 2 ID : 441009971204
Option 3 ID : 441009971202
Option 4 ID : 441009971201
Status : Answered
Chosen Option : A

Q.11 Material management policies should ensure:

- Ans A. limiting communication with suppliers
 B. timely procurement and optimal use of resources
 C. reducing the number of materials used in production
 D. delaying the production cycle to reduce costs

Question ID : 441009249482
Option 1 ID : 441009971886
Option 2 ID : 441009971888
Option 3 ID : 441009971885
Option 4 ID : 441009971887
Status : Answered
Chosen Option : B

Q.12 Why is high-pressure cutting fluid used in gun drilling?

- Ans A. To cool and lubricate the tool, and flush chips from the deep hole
 B. To reduce the length of the drill and increase rigidity
 C. To allow retraction of the tool for chip removal
 D. To reduce tool vibration and eliminate runout

Question ID : 441009281007
 Option 1 ID : 4410091091956
 Option 2 ID : 4410091091957
 Option 3 ID : 4410091091958
 Option 4 ID : 4410091091955
 Status : Answered
 Chosen Option : A

Q.13 In galvanic corrosion, the corrosion rate is increased when:

- Ans A. The metals are electrically isolated
 B. The two metals are connected and exposed to an electrolyte
 C. The electrolyte is removed from the system
 D. The two metals have similar electrochemical potentials

Question ID : 441009288460
 Option 1 ID : 4410091120759
 Option 2 ID : 4410091120760
 Option 3 ID : 4410091120761
 Option 4 ID : 4410091120758
 Status : Not Answered
 Chosen Option : --

Q.14 While designing a typical bolt having uniform strength, the stress concentration in the thread of a bolted joint in simple loading is:

- Ans A. High
 B. Low
 C. Medium
 D. Zero

Question ID : 441009325480
 Option 1 ID : 4410091268232
 Option 2 ID : 4410091268233
 Option 3 ID : 4410091268234
 Option 4 ID : 4410091268231
 Status : Answered
 Chosen Option : A

Q.15 Specially designed circumferential plates or rims are used in:

- Ans A. Muff coupling
 B. Unprotected Type Rigid Coupling
 C. Protected Type Rigid Coupling
 D. Clamp coupling

Question ID : 441009320578
 Option 1 ID : 4410091248583
 Option 2 ID : 4410091248581
 Option 3 ID : 4410091248582
 Option 4 ID : 4410091248584
 Status : Answered
 Chosen Option : C

Q.16 Which command in AutoCAD is used to initiate the process of printing a drawing?

- Ans A. SCALE
 B. PLOT
 C. ERASE
 D. COPY

Question ID : 441009340391
Option 1 ID : 4410091327590
Option 2 ID : 4410091327592
Option 3 ID : 4410091327593
Option 4 ID : 4410091327591
Status : Answered
Chosen Option : D

Q.17 Which of the following is a correct feature of an impulse turbine?

- Ans A. It operates fully under submerged flow conditions
 B. It is suitable for low head and high flow conditions
 C. It converts pressure energy directly into shaft power
 D. It is suitable for high head and a small quantity of flow

Question ID : 441009319847
Option 1 ID : 4410091245666
Option 2 ID : 4410091245669
Option 3 ID : 4410091245668
Option 4 ID : 4410091245667
Status : Answered
Chosen Option : D

Q.18 Which of the following is a necessary condition for a process to be considered quasistatic?

- Ans A. The process must be carried out infinitely slowly so that the system remains in equilibrium at all times.
 B. The process must involve heat exchange with the surroundings.
 C. The system must be isolated from its surroundings.
 D. The process must be irreversible.

Question ID : 441009274800
Option 1 ID : 4410091067483
Option 2 ID : 4410091067484
Option 3 ID : 4410091067481
Option 4 ID : 4410091067482
Status : Answered
Chosen Option : A

Q.19 Which of the following is the correct situation where an impact load will be produced?

- Ans A. Rotating machinery
 B. A falling machine part strikes a structure
 C. Earthquake
 D. Moving a car

Question ID : 441009273914
Option 1 ID : 4410091063988
Option 2 ID : 4410091063986
Option 3 ID : 4410091063987
Option 4 ID : 4410091063989
Status : Answered
Chosen Option : B

Q.20 Which of the following options best defines natural frequency in vibration terminology?

- Ans A. The frequency at which a system vibrates freely
 B. The frequency at which damping is maximum
 C. The frequency when friction is zero
 D. The frequency caused by an external force

Question ID : 441009339957

Option 1 ID : 4410091325874

Option 2 ID : 4410091325873

Option 3 ID : 4410091325876

Option 4 ID : 4410091325875

Status : Answered

Chosen Option : A

Q.21 During bending of beams, stresses vary from compressive at one edge to tensile at the other edge of the beam. Hence, at a layer stresses must be zero, the location of zero stress in bending of beam is called:

- Ans A. Neutral beam
 B. Young's Modulus
 C. Neutral layer
 D. Flexural rigidity

Question ID : 441009296967

Option 1 ID : 4410091154953

Option 2 ID : 4410091154955

Option 3 ID : 4410091154952

Option 4 ID : 4410091154954

Status : Answered

Chosen Option : C

Q.22 What type of flame is produced when there is insufficient oxygen for full combustion in gas welding?

- Ans A. Oxidising flame
 B. Neutral flame
 C. Carburising flame
 D. Preheating flame

Question ID : 441009271505

Option 1 ID : 4410091054863

Option 2 ID : 4410091054862

Option 3 ID : 4410091054864

Option 4 ID : 4410091054865

Status : Answered

Chosen Option : C

Q.23 In centrifugal pump design, why is the outlet vane angle usually NOT made smaller than about 20°, even though smaller angles may theoretically improve manometric efficiency?

- Ans
- A. Large outlet vane angles reduce impeller weight and lower cost
 - B. Small outlet vane angles increase suction pressure and cause cavitation
 - C. Large outlet vane angles help to maintain constant discharge pressure
 - D. Small outlet vane angles result in longer blades and higher flow resistance

Question ID : 441009319975
 Option 1 ID : 4410091246172
 Option 2 ID : 4410091246169
 Option 3 ID : 4410091246171
 Option 4 ID : 4410091246170
 Status : Answered
 Chosen Option : B

Q.24 In a supply chain strategy framework, forecasting primarily supports which strategy?

- Ans
- A. Customer service strategy
 - B. Information technology integration strategy
 - C. Demand flow strategy
 - D. Collaboration strategy

Question ID : 441009249372
 Option 1 ID : 441009971406
 Option 2 ID : 441009971408
 Option 3 ID : 441009971407
 Option 4 ID : 441009971405
 Status : Answered
 Chosen Option : C

Q.25 Which of the following is an advantage of using a rope drive in power transmission?

- Ans
- A. Can transmit power over long distances
 - B. Not suitable for fluctuating loads
 - C. Requires rigid and heavy supports
 - D. High cost and frequent replacement

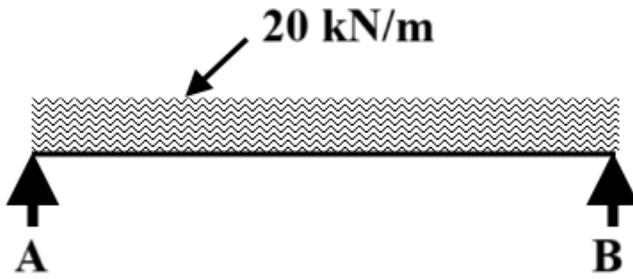
Question ID : 441009340040
 Option 1 ID : 4410091326198
 Option 2 ID : 4410091326200
 Option 3 ID : 4410091326199
 Option 4 ID : 4410091326197
 Status : Answered
 Chosen Option : A

Q.26 What is the primary objective of proper strain gauge mounting?

- Ans
- A. Increase resistance of the gauge
 - B. Achieve accurate strain transfer from the surface to the gauge
 - C. Ensure long-term storage
 - D. Improve electrical conductivity

Question ID : 441009264950
 Option 1 ID : 4410091029843
 Option 2 ID : 4410091029842
 Option 3 ID : 4410091029841
 Option 4 ID : 4410091029840
 Status : Answered
 Chosen Option : B

Q.27 A beam is simply supported at point A and B. A uniformly distributed load of intensity 20 kN/m is applied from point A to B. If AB = 1 m, the value of shear force at the middle point of beam will be:



- Ans
- A. 20 kN
 - B. 15 kN
 - C. 0 kN
 - D. 10 kN

Question ID : 441009291803
 Option 1 ID : 4410091134182
 Option 2 ID : 4410091134181
 Option 3 ID : 4410091134183
 Option 4 ID : 4410091134180
 Status : Answered
 Chosen Option : C

Q.28 The 'lost foam' casting process is similar to which other metal casting method?

- Ans
- A. Die casting
 - B. Investment casting
 - C. Shell molding
 - D. Sand casting

Question ID : 441009286667
 Option 1 ID : 4410091113641
 Option 2 ID : 4410091113643
 Option 3 ID : 4410091113642
 Option 4 ID : 4410091113640
 Status : Not Answered
 Chosen Option : --

Q.29 What is the primary focus of ISO 12944?

- Ans
- A. Corrosion protection of steel structures by protective paint systems
 - B. Welding procedures for steel structures
 - C. Fire resistance of concrete structures
 - D. Thermal insulation of buildings

Question ID : 441009288506
 Option 1 ID : 4410091120945
 Option 2 ID : 4410091120942
 Option 3 ID : 4410091120944
 Option 4 ID : 4410091120943
 Status : Not Answered
 Chosen Option : --

Q.30 Which of the following is a key factor affecting electrode wear in EDM?

- Ans A. The flushing pressure of the dielectric fluid
 B. The viscosity of the dielectric fluid
 C. The surface finish of the workpiece
 D. The electrode material's melting point and conductivity

Question ID : 441009269678
Option 1 ID : 4410091047779
Option 2 ID : 4410091047776
Option 3 ID : 4410091047778
Option 4 ID : 4410091047777
Status : Answered
Chosen Option : D

Q.31 What is the primary purpose of checking straightness in machine tools?

- Ans A. To measure the hardness of the machine tool components
 B. To verify that machine components move along a straight path
 C. To ensure the machine tool operates at maximum speed
 D. To assess the surface finish of machined parts

Question ID : 441009265192
Option 1 ID : 4410091030763
Option 2 ID : 4410091030762
Option 3 ID : 4410091030761
Option 4 ID : 4410091030764
Status : Answered
Chosen Option : B

Q.32 A shaft should be designed for the use as a spindle of machine tool. In such cases, the shaft design should be based on:

- Ans A. Maximum Normal Stress Theory
 B. Lateral rigidity
 C. Torsional rigidity
 D. Distortion Energy Theory

Question ID : 441009319884
Option 1 ID : 4410091245816
Option 2 ID : 4410091245815
Option 3 ID : 4410091245814
Option 4 ID : 4410091245817
Status : Answered
Chosen Option : D

Q.33 Which of the following tools is primarily used to record the sequence of operations and inspections in a manufacturing process during method study?

- Ans A. Multiple Activity Chart
 B. String Diagram
 C. Flow Process Chart
 D. Operation Process Chart

Question ID : 441009271002
Option 1 ID : 4410091052839
Option 2 ID : 4410091052838
Option 3 ID : 4410091052836
Option 4 ID : 4410091052837
Status : Not Answered
Chosen Option : --

Q.34 Hierarchical planning in an organisation typically involves:

- Ans
- A. minimising communication between different departments
 - B. all departments working together to create a unified plan
 - C. a single plan that integrates all aspects of the organisation
 - D. planning activities carried out at different levels of the organisation, with each level having specific goals

Question ID : 441009249431
 Option 1 ID : 441009971666
 Option 2 ID : 441009971663
 Option 3 ID : 441009971665
 Option 4 ID : 441009971664
 Status : Answered
 Chosen Option : D

Q.35 What is the main objective of selective assembly?

- Ans
- A. Achieve precise fits from standard parts
 - B. Eliminate the use of gauges
 - C. Reduce production cost
 - D. Increase speed of manufacturing

Question ID : 441009265068
 Option 1 ID : 4410091030310
 Option 2 ID : 4410091030311
 Option 3 ID : 4410091030308
 Option 4 ID : 4410091030309
 Status : Answered
 Chosen Option : C

Q.36 The break-even point on a chart represents which of the following?

- Ans
- A. The point where total revenue equals total variable costs
 - B. The level of sales where total revenue equals total costs
 - C. The point where total cost equals total fixed costs
 - D. The level of sales where total revenue equals total fixed costs

Question ID : 441009249444
 Option 1 ID : 441009971724
 Option 2 ID : 441009971726
 Option 3 ID : 441009971725
 Option 4 ID : 441009971723
 Status : Not Answered
 Chosen Option : --

Q.37 In gear hobbing, what is the primary motion involved in cutting the teeth of the gear?

- Ans
- A. Rotary motion of the hob and reciprocating motion of the gear blank
 - B. Linear motion of both the hob and gear blank
 - C. Rotary motion of the hob and continuous rotation of the gear blank
 - D. Linear motion of the hob and reciprocating motion of the gear blank

Question ID : 441009281285
 Option 1 ID : 4410091093026
 Option 2 ID : 4410091093029
 Option 3 ID : 4410091093027
 Option 4 ID : 4410091093028
 Status : Answered
 Chosen Option : C

Q.38 What causes the blades to rotate in a reaction steam turbine?

- Ans A. Electrical force
 B. Only the impulse force
 C. Both impulse and reaction forces
 D. Only the reaction force

Question ID : 441009274955
 Option 1 ID : 4410091068088
 Option 2 ID : 4410091068085
 Option 3 ID : 4410091068087
 Option 4 ID : 4410091068086
 Status : Answered
 Chosen Option : C

Q.39 The INCORRECT application of a spring used primarily and dedicated for storage of energy is:

- Ans A. Springs used in movie-cameras
 B. Springs used in circuit breakers and starters
 C. Springs used in railway buffer springs
 D. Springs used in watches/clocks

Question ID : 441009320104
 Option 1 ID : 4410091246687
 Option 2 ID : 4410091246688
 Option 3 ID : 4410091246685
 Option 4 ID : 4410091246686
 Status : Answered
 Chosen Option : A

Q.40 During the bending analysis of a section, the couple moment due to compressive and tensile stresses around neutral axis called:

- Ans A. Section Modulus
 B. Moment of area
 C. Moment of inertia
 D. Moment of resistance

Question ID : 441009292118
 Option 1 ID : 4410091135354
 Option 2 ID : 4410091135353
 Option 3 ID : 4410091135352
 Option 4 ID : 4410091135351
 Status : Answered
 Chosen Option : C

Q.41 What is the primary function of a stuffing box in a steam engine?

- Ans A. To prevent leakage of steam from the cylinder
 B. To increase the efficiency of steam expansion
 C. To reduce friction between moving parts
 D. To regulate steam pressure within the cylinder

Question ID : 441009340156
 Option 1 ID : 4410091326655
 Option 2 ID : 4410091326656
 Option 3 ID : 4410091326657
 Option 4 ID : 4410091326654
 Status : Answered
 Chosen Option : D

Q.42 Which of the following casting processes is most commonly used for mass production of small, precise metal parts?

- Ans A. Investment casting
 B. Sand casting
 C. Permanent mold casting
 D. Die casting

Question ID : 441009286672
Option 1 ID : 4410091113662
Option 2 ID : 4410091113660
Option 3 ID : 4410091113663
Option 4 ID : 4410091113661
Status : Answered
Chosen Option : A

Q.43 Which of these metals has an HCP crystal structure, which gives it low ductility compared to FCC metals?

- Ans A. Iron
 B. Cobalt
 C. Copper
 D. Aluminium

Question ID : 441009286737
Option 1 ID : 4410091113920
Option 2 ID : 4410091113922
Option 3 ID : 4410091113923
Option 4 ID : 4410091113921
Status : Not Answered
Chosen Option : --

Q.44 Which of the following is a technique commonly used to smooth out demand fluctuations?

- Ans A. Build-up inventory
 B. Discounting prices
 C. Demand shifting
 D. Offering promotional sales

Question ID : 441009249425
Option 1 ID : 441009971639
Option 2 ID : 441009971640
Option 3 ID : 441009971642
Option 4 ID : 441009971641
Status : Answered
Chosen Option : B

Q.45 What happens when the driver presses the brake pedal in a hydraulic disc brake system?

- Ans A. Air pressure pushes the shoes onto the disc
 B. Pistons push the pads against the rotating disc
 C. Friction linings contract to stop the wheel
 D. The brake drum rotates faster than the wheel

Question ID : 441009339806
Option 1 ID : 4410091325261
Option 2 ID : 4410091325258
Option 3 ID : 4410091325260
Option 4 ID : 4410091325259
Status : Answered
Chosen Option : B

Q.46 Which of the following methods lubricates a chain using a circulating pump inside the loop or lower span?

- Ans A. Bath or disk lubrication
 B. Manual or drip lubrication
 C. Oil stream lubrication
 D. Brush or spout lubrication

Question ID : 441009340065
Option 1 ID : 4410091326299
Option 2 ID : 4410091326298
Option 3 ID : 4410091326300
Option 4 ID : 4410091326301
Status : Not Answered
Chosen Option : --

Q.47 Which of the following is NOT one of the four strokes in the cycle of an ideal four-stroke petrol engine?

- Ans A. Exhaust stroke
 B. Compression stroke
 C. Ignition stroke
 D. Suction (intake) stroke

Question ID : 441009271889
Option 1 ID : 4410091056153
Option 2 ID : 4410091056151
Option 3 ID : 4410091056152
Option 4 ID : 4410091056150
Status : Answered
Chosen Option : C

Q.48 A jet of water with density ρ and cross-sectional area 'a' strikes a smooth, stationary flat plate inclined at an angle θ to the direction of the jet with a velocity V . Assuming no energy loss due to impact, the magnitude of the force exerted by the jet on the plate in the direction normal to the plate (F_n) is given by:

- Ans A. $\rho a V^2 \sin\theta$
 B. $\rho a V \sin^2\theta$
 C. $\rho a V^2 \cos^2\theta$
 D. $\rho a V$

Question ID : 441009320658

Option 1 ID : 4410091248899

Option 2 ID : 4410091248900

Option 3 ID : 4410091248897

Option 4 ID : 4410091248898

Status : Marked For Review

Chosen Option : A

Q.49 The servo control system in EDM is used to:

- Ans A. Regulate tool wear
 B. Control the dielectric temperature
 C. Adjust voltage between pulses
 D. Maintain constant spark gap between electrode and workpiece

Question ID : 441009286702

Option 1 ID : 4410091113781

Option 2 ID : 4410091113783

Option 3 ID : 4410091113780

Option 4 ID : 4410091113782

Status : Answered

Chosen Option : D

Q.50 For a spherical pressure vessel, the radius of the vessel is R , the thickness of the vessel wall is T and the internal pressure intensity is P , then stress in the material of the vessel will be:

- Ans A. $PR/4T$
 B. $PR/6T$
 C. $PR/8T$
 D. $PR/2T$

Question ID : 441009301221

Option 1 ID : 4410091172000

Option 2 ID : 4410091172002

Option 3 ID : 4410091172003

Option 4 ID : 4410091172001

Status : Answered

Chosen Option : B

Q.51 In a closed-loop control system, a limit switch is most likely used as:

- Ans A. a sensor to provide feedback on position or motion
 B. a controller to process the error signal
 C. an actuator to drive the system
 D. a comparator to generate the error signal

Question ID : 441009269591
 Option 1 ID : 4410091047427
 Option 2 ID : 4410091047425
 Option 3 ID : 4410091047426
 Option 4 ID : 4410091047428
 Status : Answered
 Chosen Option : A

Q.52 If a member or beam has pin support and roller support at the two ends respectively, then such a beam is commonly called:

- Ans A. Simply supported beam
 B. Cantilever beam
 C. Fixed support beam
 D. Overhanging beam

Question ID : 441009291882
 Option 1 ID : 4410091134379
 Option 2 ID : 4410091134376
 Option 3 ID : 4410091134378
 Option 4 ID : 4410091134377
 Status : Answered
 Chosen Option : C

Q.53 What is the primary purpose of using a Flow Process Chart in Method Study?

- Ans A. To design new machinery for production
 B. To record and analyse the sequence of activities in a process
 C. To calculate the cost of production
 D. To train workers on new technology

Question ID : 441009270985
 Option 1 ID : 4410091052768
 Option 2 ID : 4410091052769
 Option 3 ID : 4410091052770
 Option 4 ID : 4410091052771
 Status : Not Answered
 Chosen Option : --

Q.54 A successful vendor development programme leads to:

- Ans A. higher costs and lower quality
 B. limited supplier options
 C. improved supplier performance and stronger partnerships
 D. increased operational inefficiencies

Question ID : 441009249503
 Option 1 ID : 441009971977
 Option 2 ID : 441009971980
 Option 3 ID : 441009971979
 Option 4 ID : 441009971978
 Status : Not Answered
 Chosen Option : --

Q.55 If the disturbing mass is 5 kg at a radius of 0.2 m, what should be the radius of a balancing mass of 2 kg placed in the same plane?

- Ans A. 0.6 m
 B. 0.5 m
 C. 0.4 m
 D. 0.3 m

Question ID : 441009339924
 Option 1 ID : 4410091325740
 Option 2 ID : 4410091325739
 Option 3 ID : 4410091325738
 Option 4 ID : 4410091325737
 Status : Answered
 Chosen Option : B

Q.56 Why must the tooth depth and pitch in a broach be sufficiently large?

- Ans A. To accommodate the chips produced
 B. To reduce vibration
 C. To cool the tool
 D. To increase speed

Question ID : 441009271466
 Option 1 ID : 4410091054709
 Option 2 ID : 4410091054707
 Option 3 ID : 4410091054710
 Option 4 ID : 4410091054708
 Status : Answered
 Chosen Option : A

Q.57 In AutoCAD, resizing of any object can be done using:

- Ans A. Arc command
 B. Scale command
 C. Mirror command
 D. Rotate command

Question ID : 441009328952
 Option 1 ID : 4410091282221
 Option 2 ID : 4410091282223
 Option 3 ID : 4410091282222
 Option 4 ID : 4410091282220
 Status : Answered
 Chosen Option : B

Q.58 What is the primary purpose of a cooling system in an internal combustion engine?

- Ans A. To increase combustion pressure
 B. To reduce engine weight
 C. To prevent the engine from overheating
 D. To improve fuel injection

Question ID : 441009272842
 Option 1 ID : 4410091059910
 Option 2 ID : 4410091059908
 Option 3 ID : 4410091059909
 Option 4 ID : 4410091059907
 Status : Answered
 Chosen Option : C

Q.59 During the suction stroke of a compression ignition (CI) engine, what enters the cylinder?

- Ans A. Air only
 B. Exhaust gases
 C. Fuel only
 D. Air-fuel mixture

Question ID : 441009271994
Option 1 ID : 4410091056570
Option 2 ID : 4410091056569
Option 3 ID : 4410091056567
Option 4 ID : 4410091056568
Status : Answered
Chosen Option : A

Q.60 Maximum shear stress theory can be used for the designing of a shaft made of:

- Ans A. Glass
 B. Ductile material
 C. Brittle materials
 D. Cast Iron

Question ID : 441009317155
Option 1 ID : 4410091235115
Option 2 ID : 4410091235116
Option 3 ID : 4410091235114
Option 4 ID : 4410091235117
Status : Answered
Chosen Option : C

Q.61 In make-or-buy analysis, which cost is NOT relevant?

- Ans A. Purchase price
 B. Fixed overhead costs that remain unchanged
 C. Variable manufacturing cost
 D. Direct labour cost

Question ID : 441009249323
Option 1 ID : 441009971163
Option 2 ID : 441009971164
Option 3 ID : 441009971162
Option 4 ID : 441009971161
Status : Not Answered
Chosen Option : --

Q.62 Which of the following additives is NOT typically used in cutting fluid formulations?

- Ans A. Extreme Pressure (EP) Additives
 B. Rust Inhibitors
 C. Octane Boosters
 D. Anti-Wear Additives

Question ID : 441009271385
Option 1 ID : 4410091054375
Option 2 ID : 4410091054377
Option 3 ID : 4410091054378
Option 4 ID : 4410091054376
Status : Answered
Chosen Option : C

Q.63 Resinoid bonding materials, commonly used in grinding wheels, are made from which type of material?

- Ans A. Metal
 B. Plastic
 C. Ceramic
 D. Glass

Question ID : 441009273075
Option 1 ID : 4410091060850
Option 2 ID : 4410091060849
Option 3 ID : 4410091060847
Option 4 ID : 4410091060848
Status : Not Answered
Chosen Option : --

Q.64 In a shaper machine, the cutting action occurs during:

- Ans A. Only the forward stroke
 B. Only the return stroke
 C. Both forward and return strokes
 D. Only at the start of the stroke

Question ID : 441009286708
Option 1 ID : 4410091113806
Option 2 ID : 4410091113805
Option 3 ID : 4410091113804
Option 4 ID : 4410091113807
Status : Answered
Chosen Option : A

Q.65 A key advantage of qualitative forecasting methods is that they:

- Ans A. are based on solid statistical data
 B. are useful when accurate historical data is unavailable
 C. focus solely on past demand trends
 D. require minimal input from experts

Question ID : 441009249382
Option 1 ID : 441009971477
Option 2 ID : 441009971478
Option 3 ID : 441009971479
Option 4 ID : 441009971480
Status : Not Answered
Chosen Option : --

Q.66 In a steady flow, the velocity of the fluid at any point:

- Ans A. always increases with time
 B. does not change with time
 C. changes with time
 D. always decreases with time

Question ID : 441009319786
Option 1 ID : 4410091245416
Option 2 ID : 4410091245415
Option 3 ID : 4410091245414
Option 4 ID : 4410091245417
Status : Answered
Chosen Option : B

Q.67 A flywheel operates between a maximum speed of 630 rpm and a minimum speed of 570 rpm. What is the coefficient of fluctuation of speed?

- Ans A. 0.05
 B. 0.10
 C. 0.07
 D. 0.09

Question ID : 441009339996
 Option 1 ID : 4410091326026
 Option 2 ID : 4410091326027
 Option 3 ID : 4410091326028
 Option 4 ID : 4410091326025
 Status : Not Answered
 Chosen Option : --

Q.68 In fluid mechanics, the term 'inviscid flow' most accurately refers to a flow where:

- Ans A. only compressible forces are considered
 B. fluid moves without any internal motion
 C. viscosity is completely absent in the fluid
 D. viscous forces are negligible compared to other forces

Question ID : 441009320022
 Option 1 ID : 4410091246360
 Option 2 ID : 4410091246358
 Option 3 ID : 4410091246357
 Option 4 ID : 4410091246359
 Status : Answered
 Chosen Option : D

Q.69 What is the primary mechanism by which compression is achieved in a centrifugal compressor?

- Ans A. Increasing the kinetic energy using rotating impeller vanes
 B. Trapping air in closed chambers and squeezing it
 C. Heating the air inside the chamber
 D. Reducing the air volume with pistons

Question ID : 441009272971
 Option 1 ID : 4410091060433
 Option 2 ID : 4410091060434
 Option 3 ID : 4410091060431
 Option 4 ID : 4410091060432
 Status : Answered
 Chosen Option : A

Q.70 Which of the following is a major advantage of using transfer lines in a manufacturing control system?

- Ans A. High flexibility for frequent product design changes
 B. Low initial investment compared to manual systems
 C. High production rates and consistent quality for standardised parts
 D. Ability to handle small batch sizes efficiently

Question ID : 441009269614
 Option 1 ID : 4410091047519
 Option 2 ID : 4410091047521
 Option 3 ID : 4410091047520
 Option 4 ID : 4410091047522
 Status : Not Answered
 Chosen Option : --

Q.71 A water jet moving vertically downward with a velocity of 20 m/s and a cross-sectional area of 0.015 m^2 strikes a stationary horizontal flat plate normally. If the density of water is 1000 kg/m^3 , what is the force exerted by the jet on the plate?

- Ans A. 6000 N
 B. 4500 N
 C. 4000 N
 D. 5000 N

Question ID : 441009320047
Option 1 ID : 4410091246458
Option 2 ID : 4410091246459
Option 3 ID : 4410091246460
Option 4 ID : 4410091246457
Status : Answered
Chosen Option : A

Q.72 Electrical resistance strain gauges operate based on which principle?

- Ans A. Piezoelectricity
 B. Change in resistance with strain
 C. Photoelasticity
 D. Magnetic flux variation

Question ID : 441009264939
Option 1 ID : 4410091029796
Option 2 ID : 4410091029798
Option 3 ID : 4410091029797
Option 4 ID : 4410091029799
Status : Answered
Chosen Option : B

Q.73 Which of the following best defines the specific weight of a fluid?

- Ans A. The weight per unit volume of a fluid
 B. The weight per unit area of a fluid
 C. The weight per unit mass of a fluid
 D. The weight per unit length of a fluid

Question ID : 441009319763
Option 1 ID : 4410091245324
Option 2 ID : 4410091245322
Option 3 ID : 4410091245325
Option 4 ID : 4410091245323
Status : Answered
Chosen Option : A

Q.74 In a space lattice, the repeating unit is called:

- Ans A. Unit cell
 B. Crystal plane
 C. Atom
 D. Bond

Question ID : 441009287178
Option 1 ID : 4410091115656
Option 2 ID : 4410091115659
Option 3 ID : 4410091115657
Option 4 ID : 4410091115658
Status : Answered
Chosen Option : A

Q.75 The eutectoid composition in the iron-carbon diagram occurs at:

- Ans A. 0.76% Carbon
 B. 2.11% Carbon
 C. 4.3% Carbon
 D. 0.83% Carbon

Question ID : 441009287195
 Option 1 ID : 4410091115726
 Option 2 ID : 4410091115727
 Option 3 ID : 4410091115725
 Option 4 ID : 4410091115724
 Status : Answered
 Chosen Option : D

Q.76 Why is Abrasive Jet Machining (AJM) preferred for micro-machining applications in industries like electronics?

- Ans A. It requires low-pressure gas for operation.
 B. It is suitable for machining ductile metals like steel.
 C. It enables precise material removal with minimal thermal damage.
 D. It allows for high material removal rates on large surfaces.

Question ID : 441009269662
 Option 1 ID : 4410091047715
 Option 2 ID : 4410091047714
 Option 3 ID : 4410091047713
 Option 4 ID : 4410091047712
 Status : Answered
 Chosen Option : C

Q.77 What is the primary difference between steam turbines and gas turbines?

- Ans A. Steam turbines use water vapor, while gas turbines use hot gases from combustion.
 B. There is no difference between them.
 C. Steam turbines use hot air, while gas turbines use steam.
 D. Steam turbines use chemical energy, while gas turbines use potential energy.

Question ID : 441009273021
 Option 1 ID : 4410091060631
 Option 2 ID : 4410091060634
 Option 3 ID : 4410091060632
 Option 4 ID : 4410091060633
 Status : Answered
 Chosen Option : A

Q.78 Which of the following is true about the shaft alignment in a protected type flanged coupling?

- Ans A. Shafts are at right angles
 B. Shafts are parallel but offset
 C. Shafts are collinear
 D. Shafts are crossed

Question ID : 441009340162
 Option 1 ID : 4410091326678
 Option 2 ID : 4410091326679
 Option 3 ID : 4410091326680
 Option 4 ID : 4410091326681
 Status : Answered
 Chosen Option : C

Q.79 An overhanging beam is subjected to different types of loads. During the analysis, bending moment changes from sagging to hogging at a point on the beam. This point is commonly known as:

- Ans
- A. Point of maximum shear force
 - B. Point of contraflexure
 - C. Point of minimum shear force
 - D. Point of maximum bending moment

Question ID : 441009291634
 Option 1 ID : 4410091133370
 Option 2 ID : 4410091133371
 Option 3 ID : 4410091133373
 Option 4 ID : 4410091133372
 Status : Answered
 Chosen Option : B

Q.80 How is the material removal rate (MRR) primarily controlled in ECM?

- Ans
- A. By increasing the mechanical pressure of the tool
 - B. By altering the dielectric fluid's viscosity
 - C. By adjusting the spark frequency and energy
 - D. By varying the current density and electrolyte flow rate

Question ID : 441009270945
 Option 1 ID : 4410091052610
 Option 2 ID : 4410091052611
 Option 3 ID : 4410091052608
 Option 4 ID : 4410091052609
 Status : Answered
 Chosen Option : D

Q.81 Why can't lubricants be used in the coining process?

- Ans
- A. They are not compatible with high pressure.
 - B. They cause oxidation of the gear material.
 - C. They prevent full reproduction of die surface details.
 - D. They increase the temperature of the material.

Question ID : 441009281177
 Option 1 ID : 4410091092598
 Option 2 ID : 4410091092595
 Option 3 ID : 4410091092596
 Option 4 ID : 4410091092597
 Status : Not Answered
 Chosen Option : --

Q.82 Which of the following best describes the dual role of a cooling system in an IC engine?

- Ans
- A. It prevents overheating while maintaining optimal temperature for efficiency.
 - B. It keeps the engine always at low temperature.
 - C. It cools the fuel before injection.
 - D. It removes all the heat produced during combustion.

Question ID : 441009272846
 Option 1 ID : 4410091059924
 Option 2 ID : 4410091059923
 Option 3 ID : 4410091059926
 Option 4 ID : 4410091059925
 Status : Answered
 Chosen Option : A

Q.83 In an ideal steam power plant operating on the Rankine cycle, what happens in the turbine?

- Ans
- A. Heating water at constant pressure
 - B. Cooling steam at constant pressure
 - C. Expanding steam without heat exchange
 - D. Compressing liquid water without heat exchange

Question ID : 441009274848
 Option 1 ID : 4410091067673
 Option 2 ID : 4410091067675
 Option 3 ID : 4410091067674
 Option 4 ID : 4410091067676
 Status : Answered
 Chosen Option : C

Q.84 Typically, what is required to achieve precise dimensional tolerances after casting gears?

- Ans
- A. Polishing
 - B. Welding
 - C. Machining or grinding
 - D. Coating

Question ID : 441009281124
 Option 1 ID : 4410091092423
 Option 2 ID : 4410091092425
 Option 3 ID : 4410091092424
 Option 4 ID : 4410091092426
 Status : Answered
 Chosen Option : A

Q.85 If the weight is the same for a hollow and a solid shaft, then the ratio of stiffness of the hollow shaft to that of the solid shaft will be:

- Ans
- A. More than 1
 - B. 1/4
 - C. Less than 1
 - D. 1/2

Question ID : 441009314571
 Option 1 ID : 4410091224758
 Option 2 ID : 4410091224761
 Option 3 ID : 4410091224759
 Option 4 ID : 4410091224760
 Status : Not Answered
 Chosen Option : --