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(Mechanical)
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Participant ID	
Participant Name	
Test Center Name	
Test Date	27/03/2025
Test Time	2:00 PM - 4:30 PM
Subject	Mechanical Engineer

Section : English Language

Q.1 Select the idiom that can substitute the underlined segment.

The teacher instructed Rita that all the synonyms and antonyms given in the textbook exercises should be memorised.

- Ans 1. should be faced
 2. should be a l fishy
 3. should be learnt by heart
 4. should be thick in the head

Question ID : 4410096021
Option 1 ID : 44100923862
Option 2 ID : 44100923863
Option 3 ID : 44100923864
Option 4 ID : 44100923861
Status : Answered
Chosen Option : 3

Q.2 Select the most appropriate option to fill in the blank.

No book, any electronic material or smart watches ____ allowed inside the exam hall.

- Ans 1. is
 2. are
 3. had
 4. were

Question ID : 4410095355
Option 1 ID : 44100921215
Option 2 ID : 44100921214
Option 3 ID : 44100921217
Option 4 ID : 44100921216
Status : Answered
Chosen Option : 2

Q.3 Select the most appropriate article to fill in the blank. If no article is required, select 'No article required'.

Radhu has lost ____ book which her uncle gave her as a birthday present.

Ans 1. No article required

2. the

3. an

4. a

Question ID : 4410097030

Option 1 ID : 44100927866

Option 2 ID : 44100927865

Option 3 ID : 44100927864

Option 4 ID : 44100927863

Status : Answered

Chosen Option : 2

Q.4 Sentences of a paragraph are given below. While the first and the last sentences (S1 and S6) are in the correct order, the sentences in between are jumbled up. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

S1: One day Matilda met Mrs. Forestier on the roadside.

P: The one she had returned was a replacement.

Q: Matilda said it had taken her ten years of hard labour to repay the loan.

R: Mrs. Forestier could not recognise her friend.

S: Matilda told her about the loss of the borrowed necklace.

S6: Mrs. Forestier said it was a false one.

Ans 1. RSQP

2. SRQP

3. PSQR

4. QPRS

Question ID : 4410095954

Option 1 ID : 44100923593

Option 2 ID : 44100923595

Option 3 ID : 44100923594

Option 4 ID : 44100923596

Status : Answered

Chosen Option : 1

Q.5 Select the most appropriate synonym of the given word.

Grit

Ans 1. Innocent and illiterate

2. Power to beat

3. Well known

4. Courage and determination

Question ID : 4410096045

Option 1 ID : 44100923958

Option 2 ID : 44100923959

Option 3 ID : 44100923957

Option 4 ID : 44100923960

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.6 Select the most appropriate option to fill in the blank.

Rakshana _____ reached the railway junction in time.

- Ans 1. nearly
 2. fairly
 3. soon
 4. even

Question ID : 4410098053

Option 1 ID : 44100931938

Option 2 ID : 44100931936

Option 3 ID : 44100931939

Option 4 ID : 44100931937

Status : **Not Attempted and
Marked For Review**

Chosen Option : --

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

We met her _____ the Ayodhya Ram Lalla Temple when we went on a pilgrimage.

- Ans 1. at
 2. by
 3. with
 4. in

Question ID : 4410098057

Option 1 ID : 44100931953

Option 2 ID : 44100931954

Option 3 ID : 44100931955

Option 4 ID : 44100931952

Status : **Answered**

Chosen Option : 4

Q.8 Rectify the error in the sentence by selecting the correct spelling from the options.

The catheters are inserted into the body through a small incission in the groin.

- Ans 1. incesion
 2. inceseion
 3. incession
 4. incision

Question ID : 4410096037

Option 1 ID : 44100923925

Option 2 ID : 44100923927

Option 3 ID : 44100923928

Option 4 ID : 44100923926

Status : **Not Attempted and
Marked For Review**

Chosen Option : --

Q.9 Sentences of a paragraph are given below. While the first and the last sentences (S1 and S6) are in the correct order, the sentences in between are jumbled up. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

S1: The demise of castles can ultimately be attributed to gunpowder.

P: But the first gunpowder weapons were unreliable, inaccurate, and weak by standards.

Q: This greatly undermined the military role of castles.

R: During the 15th century, artillery became powerful enough to break through stone walls.

S: Gunpowder was first introduced to Europe during the 14th century.

S6: Castles were then replaced by artillery forts that had no role in civil administration.

- Ans
- 1. QRSP
 - 2. PSQR
 - 3. RPSQ
 - 4. SPRQ

Question ID : 4410095960

Option 1 ID : 44100923620

Option 2 ID : 44100923619

Option 3 ID : 44100923617

Option 4 ID : 44100923618

Status : **Not Attempted and
Marked For Review**

Chosen Option : --

Q.10 Select the most appropriate option that can substitute the underlined segment in the sentence.

Rita was determined to achieve something enough to chase after her dream of becoming a film actress.

- Ans
- 1. diligent
 - 2. tenacious
 - 3. resolute
 - 4. assertive

Question ID : 4410095978

Option 1 ID : 44100923691

Option 2 ID : 44100923690

Option 3 ID : 44100923689

Option 4 ID : 44100923692

Status : **Not Attempted and
Marked For Review**

Chosen Option : --

Q.11 Select the most appropriate option that can substitute the segment in brackets to fill in the blank.

It was my teacher's unique _____ (the approach or style of teaching) that made her favourite of every student.

- Ans 1. didactics
 2. pedagogy
 3. aesthetics
 4. andragogy

Question ID : 4410095985
Option 1 ID : 44100923719
Option 2 ID : 44100923717
Option 3 ID : 44100923720
Option 4 ID : 44100923718
Status : Not Answered
Chosen Option : --

Q.12 Select the most appropriate ANTONYM of the given word.

Mitigate

- Ans 1. Militate
 2. Reduce
 3. Increase
 4. Produce

Question ID : 4410096042
Option 1 ID : 44100923948
Option 2 ID : 44100923946
Option 3 ID : 44100923945
Option 4 ID : 44100923947
Status : Answered
Chosen Option : 3

Comprehension:

Read the given passage and answer the questions that follow.

The English language has been significantly influenced by Greek, especially in fields like science, philosophy and the arts. Many English words, such as geography, architect and encyclopaedia, have Greek origins, often entering the language through Latin or French. Greek mythology has also contributed idioms like Achilles' heel (a person's weakness) and Midas touch (the ability to make a financial success of everything you do). This linguistic influence highlights the enduring legacy of Greek culture. Understanding these contributions helps us appreciate how ancient languages continue to shape modern communication. Even in medicine and technology, Greek roots are evident in terms like biology, psychology and telephone. The Greek alphabet has also influenced scientific symbols and mathematical notations, further demonstrating the deep connection between Greek and modern academic disciplines.

SubQuestion No : 13

Q.13 What is the most appropriate synonym of the word 'enduring' in the given passage?

- Ans
- 1. Momentary
 - 2. Delicate
 - 3. Lasting
 - 4. Feeble

Question ID : 44100922027

Option 1 ID : 44100987827

Option 2 ID : 44100987830

Option 3 ID : 44100987828

Option 4 ID : 44100987829

Status : Answered

Chosen Option : 3

Comprehension:

Read the given passage and answer the questions that follow.

The English language has been significantly influenced by Greek, especially in fields like science, philosophy and the arts. Many English words, such as geography, architect and encyclopaedia, have Greek origins, often entering the language through Latin or French. Greek mythology has also contributed idioms like Achilles' heel (a person's weakness) and Midas touch (the ability to make a financial success of everything you do). This linguistic influence highlights the enduring legacy of Greek culture. Understanding these contributions helps us appreciate how ancient languages continue to shape modern communication. Even in medicine and technology, Greek roots are evident in terms like biology, psychology and telephone. The Greek alphabet has also influenced scientific symbols and mathematical notations, further demonstrating the deep connection between Greek and modern academic disciplines.

SubQuestion No : 14

Q.14 According to the passage, why did Greek have such a strong influence on English?

- Ans
- 1. Greek was first used in England.
 - 2. The English language originated from Greek.
 - 3. Many Greek words entered English through Latin and French due to their historical significance.
 - 4. Greek is a widely spoken language today.

Question ID : 44100922028

Option 1 ID : 44100987831

Option 2 ID : 44100987833

Option 3 ID : 44100987832

Option 4 ID : 44100987834

Status : Answered

Chosen Option : 3

Comprehension:

Read the given passage and answer the questions that follow.

The English language has been significantly influenced by Greek, especially in fields like science, philosophy and the arts. Many English words, such as geography, architect and encyclopaedia, have Greek origins, often entering the language through Latin or French. Greek mythology has also contributed idioms like Achilles' heel (a person's weakness) and Midas touch (the ability to make a financial success of everything you do). This linguistic influence highlights the enduring legacy of Greek culture. Understanding these contributions helps us appreciate how ancient languages continue to shape modern communication. Even in medicine and technology, Greek roots are evident in terms like biology, psychology and telephone. The Greek alphabet has also influenced scientific symbols and mathematical notations, further demonstrating the deep connection between Greek and modern academic disciplines.

SubQuestion No : 15

Q.15 Identify the central theme of the passage.

- Ans 1. The ancient conflicts between Greek and English speakers
2. The comparison of Greek with English
3. The influence of Greek on English idioms and academic vocabulary
4. The fall of the Greek language in recent times

Question ID : 44100922029

Option 1 ID : 44100987835

Option 2 ID : 44100987838

Option 3 ID : 44100987837

Option 4 ID : 44100987836

Status : Answered

Chosen Option : 3

Comprehension:

Read the given passage and answer the questions that follow.

The English language has been significantly influenced by Greek, especially in fields like science, philosophy and the arts. Many English words, such as geography, architect and encyclopaedia, have Greek origins, often entering the language through Latin or French. Greek mythology has also contributed idioms like Achilles' heel (a person's weakness) and Midas touch (the ability to make a financial success of everything you do). This linguistic influence highlights the enduring legacy of Greek culture. Understanding these contributions helps us appreciate how ancient languages continue to shape modern communication. Even in medicine and technology, Greek roots are evident in terms like biology, psychology and telephone. The Greek alphabet has also influenced scientific symbols and mathematical notations, further demonstrating the deep connection between Greek and modern academic disciplines.

SubQuestion No : 16

Q.16 According to the passage, which of the following words is derived from Greek?

- Ans 1. Physics
2. Pastor
3. Encyclopaedia
4. Comics

Question ID : 44100922031

Option 1 ID : 44100987844

Option 2 ID : 44100987846

Option 3 ID : 44100987843

Option 4 ID : 44100987845

Status : Answered

Chosen Option : 3

Comprehension:

Read the given passage and answer the questions that follow.

The English language has been significantly influenced by Greek, especially in fields like science, philosophy and the arts. Many English words, such as geography, architect and encyclopaedia, have Greek origins, often entering the language through Latin or French. Greek mythology has also contributed idioms like Achilles' heel (a person's weakness) and Midas touch (the ability to make a financial success of everything you do). This linguistic influence highlights the enduring legacy of Greek culture. Understanding these contributions helps us appreciate how ancient languages continue to shape modern communication. Even in medicine and technology, Greek roots are evident in terms like biology, psychology and telephone. The Greek alphabet has also influenced scientific symbols and mathematical notations, further demonstrating the deep connection between Greek and modern academic disciplines.

SubQuestion No : 17

Q.17 What is the tone of the passage?

- Ans 1. Informative
 2. Influential
 3. Critical
 4. Entertaining

Question ID : 44100922030

Option 1 ID : 44100987840

Option 2 ID : 44100987841

Option 3 ID : 44100987842

Option 4 ID : 44100987839

Status : Answered

Chosen Option : 2

Section : Quantitative Aptitude

Q.1 The following frequency distribution represents the weights of 50 students of a class. What is the median weight of the students (correct to 2 decimal places)?

Weight (in kg)	Number of Students
40 - 45	8
45 - 50	10
50 - 55	6
55 - 60	12
60 - 65	10
65 - 70	4

- Ans 1. 59.38 kg
 2. 45.23 kg
 3. 48.75 kg
 4. 55.42 kg

Question ID : 44100937082

Option 1 ID : 441009147824

Option 2 ID : 441009147821

Option 3 ID : 441009147822

Option 4 ID : 441009147823

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.2 A car covers a distance of 280 km in 7 h. If the car reduces its speed by 10 km/hr, how much time (correct to 1 decimal place) will it take to cover the same distance?

- Ans 1. 2.8 h
 2. 6.7 h
 3. 4.9 h
 4. 9.3 h

Question ID : 44100937150
 Option 1 ID : 441009148101
 Option 2 ID : 441009148103
 Option 3 ID : 441009148102
 Option 4 ID : 441009148104
 Status : Answered
 Chosen Option : 4

Q.3 Find the compound interest gained on ₹10,000 at an annual interest rate of 20% compounded annually for 2 years.

- Ans 1. ₹14,400
 2. ₹4,400
 3. ₹14,440
 4. ₹4,440

Question ID : 44100919808
 Option 1 ID : 44100978963
 Option 2 ID : 44100978964
 Option 3 ID : 44100978966
 Option 4 ID : 44100978965
 Status : Answered
 Chosen Option : 2

Q.4 What is the value of the expression $\frac{(222 + 178)^2 - (178 - 222)^2}{(222 \times 222 - 178 \times 178)}$?

- Ans 1. 7312/1203
 2. 9879/1100
 3. 8352/1407
 4. 6587/1300

Question ID : 44100937223
 Option 1 ID : 441009148436
 Option 2 ID : 441009148437
 Option 3 ID : 441009148438
 Option 4 ID : 441009148439
 Status : Not Attempted and Marked For Review
 Chosen Option : --

Q.5 The average score of 30 boys in a group test is recorded as 35. However, it was later discovered that two scores of 30 were mistakenly recorded as 40, and one score of 29 was incorrectly noted as 21. What is the correct average score of the group?

- Ans
- 1. 38.7
 - 2. 34.6
 - 3. 39.3
 - 4. 40.2

Question ID : 44100935758
Option 1 ID : 441009142568
Option 2 ID : 441009142567
Option 3 ID : 441009142569
Option 4 ID : 441009142570
Status : Answered
Chosen Option : 2

Q.6 A cistern has two inlet pipes, A and B, which can fill it in 12 hours and 18 hours, respectively. There is also a drain pipe, C, that can empty the full cistern in 36 hours. If all three pipes are opened together, then how long will it take to fill the cistern?

- Ans
- 1. 12 hours
 - 2. 9 hours
 - 3. 10 hours
 - 4. 6 hours

Question ID : 44100921210
Option 1 ID : 44100984589
Option 2 ID : 44100984587
Option 3 ID : 44100984590
Option 4 ID : 44100984588
Status : Answered
Chosen Option : 2

Q.7 A number is increased by 40% and then decreased by 25%. What is the net percentage change?

- Ans
- 1. 5% increase
 - 2. 4% decrease
 - 3. 4% increase
 - 4. 5% decrease

Question ID : 44100921565
Option 1 ID : 44100986007
Option 2 ID : 44100986009
Option 3 ID : 44100986010
Option 4 ID : 44100986008
Status : Answered
Chosen Option : 1

Q.8 A shopkeeper sells two types of grain mixtures, one containing 40% rice and the other containing 60% rice. How many kilograms of each type of rice mixture should be combined to obtain 70 kg of a mixture that contains 55% rice?

- Ans
- 1. 20 kg of 40% rice and 50 kg of 60% rice
 - 2. 17.5 kg of 40% rice and 52.5 kg of 60% rice
 - 3. 18 kg of 40% rice and 52 kg of 60% rice
 - 4. 15.3 kg of 40% rice and 54.7 kg of 60% rice

Question ID : 44100935845
 Option 1 ID : 441009142911
 Option 2 ID : 441009142913
 Option 3 ID : 441009142912
 Option 4 ID : 441009142914
 Status : Answered
 Chosen Option : 2

Q.9 The table below represents the daily pocket allowance of children in a locality. Given that the mean pocket allowance is ₹20.2, what is the value of the frequency x ?

Pocket Allowance (in ₹)	Number of Children
10 - 14	7
14 - 18	15
18 - 22	x
22 - 26	12
26 - 30	10

- Ans
- 1. 16
 - 2. 11
 - 3. 12
 - 4. 14

Question ID : 44100936684
 Option 1 ID : 441009146240
 Option 2 ID : 441009146237
 Option 3 ID : 441009146238
 Option 4 ID : 441009146239
 Status : Answered
 Chosen Option : 1

Q.10 Vidhu lends a sum of money which becomes ₹6,500 after 3 years and ₹7,500 after 5 years at the same simple interest rate. What is the annual rate of simple interest?

- Ans
- 1. 6%
 - 2. 10%
 - 3. 12%
 - 4. 11%

Question ID : 44100935867
 Option 1 ID : 441009142999
 Option 2 ID : 441009143000
 Option 3 ID : 441009143002
 Option 4 ID : 441009143001
 Status : Answered
 Chosen Option : 2

Q.11 Simplify:

$$\sqrt{\frac{729}{225}} \div \sqrt{\frac{324}{3025}}$$

- Ans
- 1. 2.2
 - 2. 5.5
 - 3. 3.3
 - 4. 3

Question ID : 44100921607

Option 1 ID : 44100986177

Option 2 ID : 44100986175

Option 3 ID : 44100986178

Option 4 ID : 44100986176

Status : Answered

Chosen Option : 2

Q.12 A mixture contains milk and water in the ratio 4 : 1. If there is 20 litres of milk in the mixture, how much water should be added to make the ratio of milk and water 3 : 1?

- Ans
- 1. $\frac{5}{3}$ litres
 - 2. $\frac{3}{2}$ litres
 - 3. $\frac{5}{2}$ litres
 - 4. $\frac{4}{3}$ litres

Question ID : 44100936434

Option 1 ID : 441009145252

Option 2 ID : 441009145249

Option 3 ID : 441009145251

Option 4 ID : 441009145250

Status : Answered

Chosen Option : 1

Q.13 Water flows through a pipe with an inner radius of 1.4 cm at a speed of 6.3 m/sec. What is the volume of water discharged by the pipe in 30 min? (Take $\pi = \frac{22}{7}$)

- Ans
- 1. 6,985.44 litre
 - 2. 4,503.81 litre
 - 3. 5,543.33 litre
 - 4. 8,735.32 litre

Question ID : 44100938190

Option 1 ID : 441009152325

Option 2 ID : 441009152327

Option 3 ID : 441009152326

Option 4 ID : 441009152324

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.14 The roots of the equation $x^2 - 6x + k = 0$ are imaginary. Find the range of values for k .

- Ans 1. $(-\infty, 9)$
 2. $(9, \infty)$
 3. $(-\infty, 6)$
 4. $(6, \infty)$

Question ID : 44100937788
Option 1 ID : 441009150729
Option 2 ID : 441009150728
Option 3 ID : 441009150731
Option 4 ID : 441009150730
Status : Answered
Chosen Option : 2

Q.15 A bag contains 1 rupee, 50 paise and 25 paise coins in the ratio 1 : 7 : 11. If the total amount in the bag is ₹2,639, then find the number of coins of 50 paise.

- Ans 1. 364
 2. 2548
 3. 1820
 4. 1001

Question ID : 44100938816
Option 1 ID : 441009154811
Option 2 ID : 441009154814
Option 3 ID : 441009154813
Option 4 ID : 441009154812
Status : Not Attempted and Marked For Review
Chosen Option : --

Q.16 If Anita had scored 90 additional marks in her examination, then 15 times her new total would have equaled the square of her original score. What was her actual score in the examination?

- Ans 1. 34
 2. 30
 3. 42
 4. 45

Question ID : 44100937942
Option 1 ID : 441009151349
Option 2 ID : 441009151348
Option 3 ID : 441009151350
Option 4 ID : 441009151351
Status : Not Answered
Chosen Option : --

Q.17 The marked price of an article is ₹15,000. A trade discount of 25% is offered, and an additional scheme discount of 10% is applied on the new price. What is the final price?

- Ans 1. ₹10,225
 2. ₹10,125
 3. ₹10,025
 4. ₹10,325

Question ID : 44100921530
Option 1 ID : 44100985868
Option 2 ID : 44100985867
Option 3 ID : 44100985870
Option 4 ID : 44100985869
Status : Not Answered
Chosen Option : --

Q.18 A and B can complete a piece of work in 8 days. B alone can do it in 12 days. If A alone starts the work and works for only 4 days and then leaves, then how many more days will B take to finish the remaining work?

- Ans 1. 10 days
 2. 12 days
 3. 8 days
 4. 9 days

Question ID : 44100921207
Option 1 ID : 44100984575
Option 2 ID : 44100984578
Option 3 ID : 44100984576
Option 4 ID : 44100984577
Status : Answered
Chosen Option : 1

Q.19 A train covers 120 km at a speed of 30 km/hr, then 180 km at 60 km/hr, and finally 240 km at 120 km/hr. Find the average speed of the train for the entire journey.

- Ans 1. 68 km/hr
 2. 58 km/hr
 3. 60 km/hr
 4. 65 km/hr

Question ID : 44100921200
Option 1 ID : 44100984548
Option 2 ID : 44100984549
Option 3 ID : 44100984547
Option 4 ID : 44100984550
Status : Answered
Chosen Option : 3

Q.20 Convert $2.\overline{345}$ into a vulgar fraction.

- Ans
- 1. $\frac{143}{61}$
 - 2. $\frac{105}{50}$
 - 3. $\frac{129}{55}$
 - 4. $\frac{115}{45}$

Question ID : 44100920167

Option 1 ID : 44100980404

Option 2 ID : 44100980403

Option 3 ID : 44100980401

Option 4 ID : 44100980402

Status : Answered

Chosen Option : 3

Q.21 AB is a chord of length of 12 cm of a circle with a radius of 10 cm. The tangents drawn at points A and B meet at a common point D. What is the length of AD?

- Ans
- 1. 7.5 cm
 - 2. 6.6 cm
 - 3. 9.2 cm
 - 4. 8.4 cm

Question ID : 44100938234

Option 1 ID : 441009152502

Option 2 ID : 441009152503

Option 3 ID : 441009152500

Option 4 ID : 441009152501

Status : Not Answered

Chosen Option : --

Q.22 A field is in the shape of an equilateral triangle whose side is 20 m. What is the cost of levelling the field at the rate of ₹40/m²?

(Given $\sqrt{3} = 1.732$)

- Ans
- 1. ₹3,954
 - 2. ₹4,706
 - 3. ₹5,388
 - 4. ₹6,928

Question ID : 44100938023

Option 1 ID : 441009151660

Option 2 ID : 441009151661

Option 3 ID : 441009151662

Option 4 ID : 441009151663

Status : Answered

Chosen Option : 4

Q.23 Which of the following numbers is divisible by 11?

Ans 1. 856974

2. 132231

3. 234568

4. 987654

Question ID : 44100920147

Option 1 ID : 44100980322

Option 2 ID : 44100980321

Option 3 ID : 44100980323

Option 4 ID : 44100980324

Status : Answered

Chosen Option : 2

Q.24 Two trains, one 150 metres long and the other 200 metres long, are moving in opposite directions at speeds of 40 km/hr and 50 km/hr. How long will it take for them to cross each other?

Ans 1. 12 seconds

2. 10 seconds

3. 14 seconds

4. 16 seconds

Question ID : 44100921183

Option 1 ID : 44100984481

Option 2 ID : 44100984480

Option 3 ID : 44100984479

Option 4 ID : 44100984482

Status : Answered

Chosen Option : 3

Q.25 A person's monthly income is increased by 10%, but his expenditure also increases by 20%. If he used to save 20% of his income earlier, what is the new percentage of his savings? (Corrected to 2 decimal places)

Ans 1. 10%

2. 9.57%

3. 8%

4. 12.73%

Question ID : 44100936137

Option 1 ID : 441009144077

Option 2 ID : 441009144078

Option 3 ID : 441009144079

Option 4 ID : 441009144076

Status : Answered

Chosen Option : 4

Q.26 The marked price of a washing machine is ₹30,000. A dealer offers a 15% discount on it. After that, a festival discount of 5% is applied. What is the final selling price of the washing machine?

- Ans
- 1. ₹20,290
 - 2. ₹22,000
 - 3. ₹24,000
 - 4. ₹24,225

Question ID : 44100936380
 Option 1 ID : 441009145036
 Option 2 ID : 441009145035
 Option 3 ID : 441009145033
 Option 4 ID : 441009145034
 Status : Answered
 Chosen Option : 4

Q.27 Which of the following expressions is equivalent to $(\operatorname{cosec} A - \sin A)(\sec A - \cos A)$?

- Ans
- 1. $\tan A + \cot A$
 - 2. $\frac{1}{\tan A + \cot A}$
 - 3. $\frac{1}{\tan A - \cot A}$
 - 4. $\tan A - \cot A$

Question ID : 44100938508
 Option 1 ID : 441009153593
 Option 2 ID : 441009153592
 Option 3 ID : 441009153594
 Option 4 ID : 441009153591
 Status : Not Answered
 Chosen Option : --

Q.28 A shopkeeper buys 10 kg of apples for ₹800 and sells 8 kg of same apples for ₹656. What is his profit or loss percentage?

- Ans
- 1. 1.5% profit
 - 2. 2.5% profit
 - 3. 1.2% loss
 - 4. 2% loss

Question ID : 44100936357
 Option 1 ID : 441009144942
 Option 2 ID : 441009144944
 Option 3 ID : 441009144941
 Option 4 ID : 441009144943
 Status : Answered
 Chosen Option : 2

Q.29 A milkman adds water to milk to gain profit. He mixes water with milk priced at ₹30 per litre to get a final mixture costing ₹25 per litre. What is the ratio of milk to water in the mixture? (Assume water is available free of cost.)

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

Question ID : 44100919801

Option 1 ID : 44100978937

Option 2 ID : 44100978935

Option 3 ID : 44100978936

Option 4 ID : 44100978938

Status : Answered

Chosen Option : 2

Q.30 The ratio of the present ages of two boys is 8 : 9. After 4 years, the ratio of their ages will be 12 : 13. What will be the ratio of their ages after 16 years?

- Ans 1. 25 : 27
 2. 32 : 33
 3. 25 : 26
 4. 24 : 25

Question ID : 44100938799

Option 1 ID : 441009154749

Option 2 ID : 441009154750

Option 3 ID : 441009154748

Option 4 ID : 441009154747

Status : Answered

Chosen Option : 4

Q.31 एक स्कूल में, कक्षा A में लड़के और लड़कियों का अनुपात 7 : 9 है, कक्षा B में लड़के और लड़कियों का अनुपात 5 : 6 है, और कक्षा C में लड़के और लड़कियों का अनुपात 8 : 9 है। किस कक्षा/कक्षाओं में लड़कों का अनुपात सर्वाधिक है?

- Ans 1. A और B दोनों
 2. C
 3. B
 4. A

Question ID : 44100936442

Option 1 ID : 441009145284

Option 2 ID : 441009145283

Option 3 ID : 441009145282

Option 4 ID : 441009145281

Status : Answered

Chosen Option : 2

Q.32 A car travels 90 km at a speed of 45 km/hr, then 120 km at 60 km/hr and finally 210 km at 70 km/hr. What is the average speed for the entire journey?

- Ans
- 1. 58.1 km/hr
 - 2. 61.3 km/hr
 - 3. 48 km/hr
 - 4. 60 km /hr

Question ID : 44100937141
Option 1 ID : 441009148066
Option 2 ID : 441009148068
Option 3 ID : 441009148065
Option 4 ID : 441009148067
Status : Answered
Chosen Option : 4

Q.33 A conical tent with a radius of 6 m and a height of 8 m is made of polyester. What is the cost of the polyester used to make this tent, if the price of the polyester is ₹140 per m²? (Given: $\pi = 3.14$)

- Ans
- 1. ₹26,376
 - 2. ₹23,368
 - 3. ₹24,582
 - 4. ₹25,452

Question ID : 44100938101
Option 1 ID : 441009151971
Option 2 ID : 441009151968
Option 3 ID : 441009151969
Option 4 ID : 441009151970
Status : Answered
Chosen Option : 1

Q.34 The HCF of two numbers is 36, and their LCM is 1296. If one of the numbers is 144, what is the sum of the two numbers?

- Ans
- 1. 524
 - 2. 345
 - 3. 468
 - 4. 632

Question ID : 44100936056
Option 1 ID : 441009143747
Option 2 ID : 441009143745
Option 3 ID : 441009143746
Option 4 ID : 441009143748
Status : Answered
Chosen Option : 3

Q.1 Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster 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.)

- Ans 1. MQV
 2. LOT
 3. CFK
 4. WZE

Question ID : 441009996
Option 1 ID : 4410093978
Option 2 ID : 4410093977
Option 3 ID : 4410093979
Option 4 ID : 4410093980
Status : Answered
Chosen Option : 1

Q.2 This question is based on the following words.

LEG PAW CUR BID

If in each of the words, each letter is changed to the letter following it in the English alphabetical order, how many letter-clusters thus formed will have no vowel?

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

Question ID : 4410091011
Option 1 ID : 4410094038
Option 2 ID : 4410094040
Option 3 ID : 4410094037
Option 4 ID : 4410094039
Status : Answered
Chosen Option : 3

Q.3 Seven boxes A, B, C, D, E, F and G are kept one over the other but not necessarily in the same order. Only three boxes are kept above A. Only one box is kept between G and A. Only three boxes are kept between G and B. B is kept at some place above A. F is kept immediately below B. E is kept at one of the places above C. D is not kept immediately above or below G. How many boxes are kept below G?

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

Question ID : 441009794
Option 1 ID : 4410093163
Option 2 ID : 4410093164
Option 3 ID : 4410093166
Option 4 ID : 4410093165
Status : Answered
Chosen Option : 1

Q.4 In a certain code language, 'our new car' is coded as 'xa oc pu', 'new friends came' is coded as 'mi ld xa' and 'came with car' is coded as 'ld oc ny'. How is 'our' coded in the given language?

- Ans 1. pu
 2. ld
 3. xa
 4. oc

Question ID : 4410091869
Option 1 ID : 4410097464
Option 2 ID : 4410097463
Option 3 ID : 4410097461
Option 4 ID : 4410097462
Status : Answered
Chosen Option : 1

Q.5 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 letter-cluster pair 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.)

- Ans 1. ZW-HY
 2. QN-YP
 3. FC-NE
 4. OI-PL

Question ID : 441009637
Option 1 ID : 4410092533
Option 2 ID : 4410092535
Option 3 ID : 4410092536
Option 4 ID : 4410092534
Status : Answered
Chosen Option : 4

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:

Some spades are hammers.

No hammer is a nail.

All nails are pipes.

Conclusions:

(I): Some spades are nails.

(II): All pipes can never be hammers.

- 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 : 4410091866
Option 1 ID : 4410097449
Option 2 ID : 4410097452
Option 3 ID : 4410097451
Option 4 ID : 4410097450
Status : Answered
Chosen Option : 2

Q.7 Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of :: ?

: VEX :: PIN : %

- Ans
- 1. # - SBR; % - TPV
 - 2. # - TAS; % - RNU
 - 3. # - TAR; % - RMT
 - 4. # - SCS; % - TOT

Question ID : 4410091863
Option 1 ID : 4410097439
Option 2 ID : 4410097437
Option 3 ID : 4410097438
Option 4 ID : 4410097440
Status : Answered
Chosen Option : 3

Q.8 Seven boxes K, L, M, S, T, U and V are kept one over the other but not necessarily in the same order. T is kept immediately above K. V is kept immediately above S. Only L is kept above M. Only two boxes are kept above T. V is not kept at third position from the bottom. How many boxes are kept between U and L?

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

Question ID : 441009432
 Option 1 ID : 4410091717
 Option 2 ID : 4410091720
 Option 3 ID : 4410091719
 Option 4 ID : 4410091718
 Status : Answered
 Chosen Option : 3

Q.9 If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '-', what will come in place of the question mark (?) in the following equation?

$$20 D 52 A 4 C 7 B 3 = ?$$

- Ans 1. 33
 2. 28
 3. 21
 4. 15

Question ID : 4410091310
 Option 1 ID : 4410095236
 Option 2 ID : 4410095235
 Option 3 ID : 4410095234
 Option 4 ID : 4410095233
 Status : Answered
 Chosen Option : 2

Q.10 X is the mother of L. C is the wife of L. D is the son of C. D has a sister named F. How is F related to L?

- Ans 1. Daughter-in-law
 2. Wife
 3. Sister
 4. Daughter

Question ID : 441009721
 Option 1 ID : 4410092873
 Option 2 ID : 4410092871
 Option 3 ID : 4410092874
 Option 4 ID : 4410092872
 Status : Answered
 Chosen Option : 4

Q.11 This question is based on the following words.

GAP ARK PEA HOP

In each of the words, each vowel is changed to the letter immediately following it in the English alphabetical order and each consonant is changed to the letter immediately preceding it in the English alphabetical order. In how many letter-clusters thus formed, will no vowel appear?

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

Question ID : 441009655

Option 1 ID : 4410092610

Option 2 ID : 4410092608

Option 3 ID : 4410092607

Option 4 ID : 4410092609

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.12 Select the pair that follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.

TIM : WKN

GUA : JWB

- Ans
- 1. DBL : GDM
 - 2. KUR : NWP
 - 3. XNI : APH
 - 4. MAH : DBI

Question ID : 441009723

Option 1 ID : 4410092882

Option 2 ID : 4410092881

Option 3 ID : 4410092880

Option 4 ID : 4410092879

Status : Answered

Chosen Option : 1

Q.13 In a certain code language, 'pistachio healthy nut' is coded as 'tu hy si' and 'coffee healthy drink' is coded as 'hy xe ph'. How is 'healthy' coded in the given language?

- Ans
- 1. ph
 - 2. tu
 - 3. xe
 - 4. hy

Question ID : 441009714

Option 1 ID : 4410092846

Option 2 ID : 4410092843

Option 3 ID : 4410092845

Option 4 ID : 4410092844

Status : Answered

Chosen Option : 4

Q.14 Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster 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.)

- Ans 1. IRA
 2. ENW
 3. NFW
 4. GPY

Question ID : 441009642

Option 1 ID : 4410092553

Option 2 ID : 4410092555

Option 3 ID : 4410092554

Option 4 ID : 4410092556

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.15 If 2 is added to each even digit and 1 is subtracted from each odd digit in the number 5379264, what will be the sum of the digits which are first from the left and first from the right in the new number thus formed?

- Ans 1. 12
 2. 10
 3. 8
 4. 11

Question ID : 4410091814

Option 1 ID : 4410097248

Option 2 ID : 4410097245

Option 3 ID : 4410097246

Option 4 ID : 4410097247

Status : Answered

Chosen Option : 2

Q.16 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 /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.)

(15, 48, 63)

(30, 32, 62)

- Ans 1. (25, 41, 66)
 2. (20, 40, 52)
 3. (45, 27, 70)
 4. (62, 18, 44)

Question ID : 4410091210

Option 1 ID : 4410094833

Option 2 ID : 4410094836

Option 3 ID : 4410094835

Option 4 ID : 4410094834

Status : Answered

Chosen Option : 1

Q.17 What should come in place of the question mark (?) in the given series?

115 97 81 67 55 ?

Ans 1. 45

2. 30

3. 35

4. 40

Question ID : 4410091183

Option 1 ID : 4410094725

Option 2 ID : 4410094728

Option 3 ID : 4410094727

Option 4 ID : 4410094726

Status : Answered

Chosen Option : 1

Q.18 Kishor starts from Point A and drives 36 km towards east. He then takes a right turn, drives 34 km, turns right and drives 39 km. He then takes a right turn and drives 37 km. He takes a final right turn, drives 3 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-degree turns only, unless specified.)

Ans 1. 1 km to the south

2. 3 km to the south

3. 2 km to the north

4. 4 km to the north

Question ID : 441009651

Option 1 ID : 4410092589

Option 2 ID : 4410092590

Option 3 ID : 4410092591

Option 4 ID : 4410092592

Status : Answered

Chosen Option : 2

Q.19 Seven boxes K, L, M, S, T, U and V are kept one over the other but not necessarily in the same order. No box is kept above T. Only three boxes are kept between T and U. Only one box is kept between L and S. S is kept immediately above U. Only four boxes are kept between L and M. K is kept at some place above V. Which box is kept second below K?

Ans 1. L

2. U

3. T

4. S

Question ID : 441009431

Option 1 ID : 4410091713

Option 2 ID : 4410091716

Option 3 ID : 4410091715

Option 4 ID : 4410091714

Status : Answered

Chosen Option : 2

Q.20 What should come in place of the question mark (?) in the given series?

127 119 111 103 95 87 ?

Ans 1. 79

2. 63

3. 65

4. 77

Question ID : 4410091703

Option 1 ID : 4410096806

Option 2 ID : 4410096805

Option 3 ID : 4410096808

Option 4 ID : 4410096807

Status : Answered

Chosen Option : 1

Q.21 This question is based on the five, three-digit numbers given below.

(Left) 768 987 783 825 874 (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 highest number is multiplied with the third digit of the lowest number?

Ans 1. 64

2. 63

3. 45

4. 56

Question ID : 441009654

Option 1 ID : 4410092606

Option 2 ID : 4410092605

Option 3 ID : 4410092604

Option 4 ID : 4410092603

Status : Answered

Chosen Option : 1

Q.22 W is the mother of E. E is the father of R. R is the brother of T. T is the wife of Y. How is W related to Y?

Ans 1. Wife's father's sister

2. Wife's mother's mother

3. Wife's father's mother

4. Wife's mother's sister

Question ID : 441009804

Option 1 ID : 4410093204

Option 2 ID : 4410093205

Option 3 ID : 4410093203

Option 4 ID : 4410093206

Status : Answered

Chosen Option : 3

Q.23 If + means -, - means ×, × means ÷ and ÷ means +, then what will come in place of the question mark (?) in the following equation?

$$81 \times 9 \div 14 + 4 - 4 = ?$$

- Ans
- 1. 10
 - 2. 13
 - 3. 18
 - 4. 7

Question ID : 4410091165

Option 1 ID : 4410094655

Option 2 ID : 4410094654

Option 3 ID : 4410094653

Option 4 ID : 4410094656

Status : Answered

Chosen Option : 4

Q.24 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion(s) logically follow(s) from the statements.

Statements:

All swords are pens.

No dagger is a sword.

Conclusions:

(I): Some pens are daggers.

(II): No dagger is a pen.

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

Question ID : 441009718

Option 1 ID : 4410092862

Option 2 ID : 4410092861

Option 3 ID : 4410092860

Option 4 ID : 4410092859

Status : Answered

Chosen Option : 2

Q.25 If 1 is added to each even digit and 2 is subtracted from each odd digit in the number 3527468, how many digits will appear more than once in the new number thus formed?

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

Question ID : 4410091818
Option 1 ID : 4410097263
Option 2 ID : 4410097261
Option 3 ID : 4410097264
Option 4 ID : 4410097262
Status : Answered
Chosen Option : 1

Q.26 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the pair in which the numbers are related in the same way as are the numbers of the following 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/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.)

86, 126
70, 110

- Ans 1. 35, 70
 2. 25, 65
 3. 42, 72
 4. 64, 100

Question ID : 4410091218
Option 1 ID : 4410094868
Option 2 ID : 4410094866
Option 3 ID : 4410094865
Option 4 ID : 4410094867
Status : Answered
Chosen Option : 2

Q.27 A, B, C, D, E, F and G are sitting around a circular table facing the centre. Only one person sits between F and A when counted from the right of F. Only one person sits between A and C. Only one person sits between F and E. Only two people sit between G and C. Only one person sits between B and E. How many people sit between B and F when counted from the left of B?

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

Question ID : 441009792
Option 1 ID : 4410093157
Option 2 ID : 4410093158
Option 3 ID : 4410093155
Option 4 ID : 4410093156
Status : Answered
Chosen Option : 4

Q.28 Seven boxes, R, A, L, E, N, D and I, are kept one over the other but not necessarily in the same order. No box is kept below N. Only four boxes are kept between A and R. Only D is kept between L and R. E is kept immediately below A. What is the position of I from the top?

- Ans 1. Third
 2. Fifth
 3. Second
 4. Fourth

Question ID : 441009713
Option 1 ID : 4410092840
Option 2 ID : 4410092842
Option 3 ID : 4410092839
Option 4 ID : 4410092841
Status : Not Answered
Chosen Option : --

Q.29 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

23, 57
17, 45

- Ans 1. 15, 41
 2. 21, 63
 3. 27, 74
 4. 19, 39

Question ID : 4410091769
Option 1 ID : 4410097065
Option 2 ID : 4410097068
Option 3 ID : 4410097067
Option 4 ID : 4410097066
Status : Not Answered
Chosen Option : --

Q.30 D, E, F, G, M, N and O are sitting around a circular table facing the centre of the table. D sits third to the left of M. E sits second to the left of N. Only M sits between G and E. O is not an immediate neighbour of D. How many people sit between F and E when counted from the right of F?

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

Question ID : 441009433
Option 1 ID : 4410091721
Option 2 ID : 4410091723
Option 3 ID : 4410091722
Option 4 ID : 4410091724
Status : Not Answered
Chosen Option : --

Q.31 Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

HNW 29, DPS 42, ZRO 55, VTK 68, RVG 81, ?

- Ans 1. NXC 94
 2. MXB 92
 3. OWC 94
 4. MYD 92

Question ID : 4410091000
 Option 1 ID : 4410093996
 Option 2 ID : 4410093995
 Option 3 ID : 4410093994
 Option 4 ID : 4410093993
 Status : Answered
 Chosen Option : 1

Q.32 Select the pair that follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.

RJE : TID
 SKM : UJL

- Ans 1. BST : ZTS
 2. MAJ : OZH
 3. LIM : JJN
 4. PJM : RIL

Question ID : 441009724
 Option 1 ID : 4410092885
 Option 2 ID : 4410092884
 Option 3 ID : 4410092883
 Option 4 ID : 4410092886
 Status : Not Answered
 Chosen Option : --

Q.33 This question is based on the five, three-digit numbers given below.

(Left) 847 429 517 371 386 (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 highest number is multiplied with the second digit of the lowest number?

- Ans 1. 26
 2. 28
 3. 27
 4. 25

Question ID : 441009653
 Option 1 ID : 4410092598
 Option 2 ID : 4410092600
 Option 3 ID : 4410092599
 Option 4 ID : 4410092597
 Status : Not Answered
 Chosen Option : --

Q.34 Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

FIN53, ORW49, XAF45, GJO41, ?

- Ans
- 1. PSX36
 - 2. RSX37
 - 3. PSY37
 - 4. PSX37

Question ID : 441009647
Option 1 ID : 4410092574
Option 2 ID : 4410092575
Option 3 ID : 4410092576
Option 4 ID : 4410092573
Status : Not Answered
Chosen Option : --

Section : Domain Knowledge

Q.1 In printing machines, cam and follower mechanisms are used to:

- Ans
- 1. Adjust the font size automatically
 - 2. Transfer ink to the paper
 - 3. Feed paper sheets at regular intervals
 - 4. Increase the pressure of printing rollers

Question ID : 4410093477
Option 1 ID : 44100913918
Option 2 ID : 44100913915
Option 3 ID : 44100913916
Option 4 ID : 44100913917
Status : Answered
Chosen Option : 3

Q.2 Which of the following statements is NOT correct for 'Product Layout'?

- Ans
- 1. More process inventory
 - 2. Less space requirement for same volume of production
 - 3. Smooth and continuous workflow
 - 4. Better co-ordination and simple production planning and control

Question ID : 441009720
Option 1 ID : 4410092868
Option 2 ID : 4410092869
Option 3 ID : 4410092867
Option 4 ID : 4410092870
Status : Answered
Chosen Option : 1

Q.3 The maximum deflection (δ_{\max}) of a cantilever beam of length L subjected to a point load P at its free end is given by:

- Ans
- 1. $PL^3/(8EI)$
 - 2. $PL^3/(48EI)$
 - 3. $PL^3/(6EI)$
 - 4. $PL^3/(3EI)$

Question ID : 44100941902
Option 1 ID : 441009167148
Option 2 ID : 441009167150
Option 3 ID : 441009167149
Option 4 ID : 441009167151
Status : Answered
Chosen Option : 4

Q.4 The standard marking system of grinding wheels, as developed by the Indian standard marking system, gives the indication about:

- Ans
- 1. the pressure between the grinding wheel and the workpiece
 - 2. the time taken to complete the finishing of the workpiece
 - 3. the hardness and grit size of the grinding wheel
 - 4. material removal rate

Question ID : 4410093304
Option 1 ID : 44100913226
Option 2 ID : 44100913224
Option 3 ID : 44100913225
Option 4 ID : 44100913223
Status : Answered
Chosen Option : 3

Q.5 What is the primary function of a strain gauge?

- Ans
- 1. To measure electrical resistance directly
 - 2. To measure temperature changes
 - 3. To measure strain in a material
 - 4. To measure pressure variations

Question ID : 44100943228
Option 1 ID : 441009172374
Option 2 ID : 441009172371
Option 3 ID : 441009172372
Option 4 ID : 441009172373
Status : Answered
Chosen Option : 3

Q.6 What is the main purpose of limits, fits, and tolerances in manufacturing?

Ans 1. To ensure proper assembly and interchangeability

2. To eliminate the need for machining

3. To reduce the production cost only

4. To increase the weight of the components

Question ID : 44100943472

Option 1 ID : 441009173340

Option 2 ID : 441009173342

Option 3 ID : 441009173341

Option 4 ID : 441009173339

Status : Answered

Chosen Option : 1

Q.7 Compute the value of 'Median' for the following data.

Item in data array 1 2 3 4 5 6 7

Time in minutes 4.2 4.3 4.7 4.8 5.1 5.4 5.8

Ans 1. 5.1

2. 4.9

3. 4.7

4. 4.8

Question ID : 4410091129

Option 1 ID : 4410094512

Option 2 ID : 4410094511

Option 3 ID : 4410094509

Option 4 ID : 4410094510

Status : Answered

Chosen Option : 4

Q.8 The power to weight ratio for external combustion engines as compared to internal combustion engines:

Ans 1. is equal

2. is low

3. can be greater or lower, it depends on the situation

4. is high

Question ID : 4410091908

Option 1 ID : 4410097617

Option 2 ID : 4410097618

Option 3 ID : 4410097620

Option 4 ID : 4410097619

Status : Answered

Chosen Option : 4

Q.9 As per the Indian standard system, the point angle in a normal drill is:

- Ans 1. 90 degrees
 2. 118 degrees
 3. 75 degrees
 4. 100 degrees

Question ID : 4410093255
Option 1 ID : 44100913028
Option 2 ID : 44100913030
Option 3 ID : 44100913027
Option 4 ID : 44100913029
Status : Answered
Chosen Option : 2

Q.10 Which of the following processes is always quasi-static?

- Ans 1. Reversible isothermal process
 2. Sudden compression of a piston
 3. Combustion in an engine
 4. Free expansion of a gas

Question ID : 4410091139
Option 1 ID : 4410094551
Option 2 ID : 4410094550
Option 3 ID : 4410094552
Option 4 ID : 4410094549
Status : Answered
Chosen Option : 1

Q.11 Which of the following factors DOES NOT affect the bending stress in a beam?

- Ans 1. Bending moment
 2. Moment of inertia
 3. Length of the beam
 4. Distance from the neutral axis

Question ID : 44100942302
Option 1 ID : 441009168723
Option 2 ID : 441009168724
Option 3 ID : 441009168725
Option 4 ID : 441009168726
Status : Answered
Chosen Option : 4

Q.12 Which of the following is a key objective of material management in an organisation?

- Ans 1. To maintain a high level of inventory to prevent any potential stockouts, even if it results in excessive storage costs
2. To procure materials at the lowest possible price, ignoring quality and supplier reliability to maximise short-term savings
3. To prioritise material procurement based solely on immediate production needs, without considering future demand fluctuations or long-term supplier relationships
4. To ensure the right quality and quantity of materials are available at the right time, at the lowest cost, while minimising waste and stockouts

Question ID : 4410099171

Option 1 ID : 44100936435

Option 2 ID : 44100936436

Option 3 ID : 44100936438

Option 4 ID : 44100936437

Status : Answered

Chosen Option : 4

Q.13 What is the primary safety advantage of the protected type flange coupling?

- Ans 1. It protects the workman from injuries due to protruding bolts and nuts.
2. It enhances the torsional rigidity of the system.
3. It provides automatic lubrication to the shaft.
4. It minimises friction between the shaft and the coupling.

Question ID : 4410098524

Option 1 ID : 44100933829

Option 2 ID : 44100933831

Option 3 ID : 44100933828

Option 4 ID : 44100933830

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.14 Which of the following is NOT a characteristic of brittle fracture?

- Ans 1. Ductile necking at the fracture site
2. Minimal plastic deformation before fracture
3. Rapid crack propagation
4. Occurs at low temperatures or high strain rates

Question ID : 4410092967

Option 1 ID : 44100911902

Option 2 ID : 44100911901

Option 3 ID : 44100911900

Option 4 ID : 44100911903

Status : Answered

Chosen Option : 1

Q.15 Which type of feed is needed in facing operation?

- Ans
- 1. Parallel to the axis of rotation
 - 2. Neither parallel nor perpendicular to the axis of rotation
 - 3. Perpendicular to the axis of rotation
 - 4. Both parallel and perpendicular to the axis of rotation

Question ID : 4410093236

Option 1 ID : 44100912951

Option 2 ID : 44100912954

Option 3 ID : 44100912952

Option 4 ID : 44100912953

Status : Answered

Chosen Option : 4

Q.16 Observed time for a worker is 0.7 minutes and his performance rating is 80%. Calculate the normal time taken by the worker.

- Ans
- 1. 0.7 minutes
 - 2. 0.56 minutes
 - 3. 0.875 minutes
 - 4. 0.95 minutes

Question ID : 441009882

Option 1 ID : 4410093516

Option 2 ID : 4410093515

Option 3 ID : 4410093517

Option 4 ID : 4410093518

Status : Answered

Chosen Option : 2

Q.17 Additives that are normally used for mixing with oils to increase lubricating and cooling qualities of various oils are _____.

- Ans
- 1. sulphur and chlorine
 - 2. carbon and helium
 - 3. sodium and potassium
 - 4. hydrogen and nitrogen

Question ID : 4410094923

Option 1 ID : 44100919520

Option 2 ID : 44100919521

Option 3 ID : 44100919518

Option 4 ID : 44100919519

Status : Not Answered

Chosen Option : --

Q.18 In oxyacetylene welding, if acetylene is observed to be in excess, the flame is called as:

- Ans 1. reducing flame
 2. neutral flame
 3. originating flame
 4. oxidising flame

Question ID : 4410094899
Option 1 ID : 44100919428
Option 2 ID : 44100919426
Option 3 ID : 44100919429
Option 4 ID : 44100919427
Status : Answered
Chosen Option : 1

Q.19 In a quasi-static process, irreversibilities are:

- Ans 1. dominant
 2. maximised
 3. negligible
 4. unpredictable

Question ID : 4410091083
Option 1 ID : 4410094327
Option 2 ID : 4410094325
Option 3 ID : 4410094326
Option 4 ID : 4410094328
Status : Answered
Chosen Option : 3

Q.20 Two masses of 3 kg and 6 kg are attached at 0.2 m and 0.1 m radius in the same plane. What should be the mass of a third counter mass at 0.15 m to balance the system?

- Ans 1. 2 kg
 2. 8 kg
 3. 3 kg
 4. 1 kg

Question ID : 44100914105
Option 1 ID : 44100956246
Option 2 ID : 44100956248
Option 3 ID : 44100956247
Option 4 ID : 44100956245
Status : Not Answered
Chosen Option : --

Q.21 Which of the following is NOT a function of material management?

- Ans
- 1. Procurement
 - 2. Warehousing
 - 3. Marketing strategy
 - 4. Inventory control

Question ID : 4410099170
Option 1 ID : 44100936431
Option 2 ID : 44100936434
Option 3 ID : 44100936433
Option 4 ID : 44100936432
Status : Answered
Chosen Option : 3

Q.22 Which feature of CAD software helps in creating precise, scalable designs?

- Ans
- 1. 3D rendering
 - 2. Freehand drawing tool
 - 3. Grid and snap settings
 - 4. Image filter tools

Question ID : 4410091382
Option 1 ID : 4410095524
Option 2 ID : 4410095521
Option 3 ID : 4410095522
Option 4 ID : 4410095523
Status : Not Attempted and
Marked For Review
Chosen Option : --

Q.23 Which command is used to change the appearance of dimensions in AutoCAD?

- Ans
- 1. DSTYLE
 - 2. DSETTINGS
 - 3. DIMEDIT
 - 4. DIMSTYLE

Question ID : 4410091400
Option 1 ID : 4410095593
Option 2 ID : 4410095594
Option 3 ID : 4410095596
Option 4 ID : 4410095595
Status : Not Answered
Chosen Option : --

Q.24 Which instrument is commonly used to check parallelism in machine tool testing?

- Ans
- 1. Micrometer
 - 2. Vernier caliper
 - 3. Dial gauge and straightedge
 - 4. Hardness tester

Question ID : 44100943708
Option 1 ID : 441009174281
Option 2 ID : 441009174280
Option 3 ID : 441009174279
Option 4 ID : 441009174282
Status : Answered
Chosen Option : 3

Q.25 Reaming is primarily used for achieving:

- Ans
- 1. improved position tolerance
 - 2. improved dimension tolerance
 - 3. lower MRR
 - 4. higher MRR

Question ID : 4410093267
Option 1 ID : 44100913076
Option 2 ID : 44100913075
Option 3 ID : 44100913078
Option 4 ID : 44100913077
Status : Answered
Chosen Option : 2

Q.26 What is the full form of COMSOAL?

- Ans
- 1. Computerised Simulation and Optimisation of Assembly Line
 - 2. Computer Method for Sequencing Operations for Assembly Lines
 - 3. Computerised Solution of Assembly Line Balancing
 - 4. Computerised Simulation of Assembly Line

Question ID : 4410099168
Option 1 ID : 44100936425
Option 2 ID : 44100936426
Option 3 ID : 44100936424
Option 4 ID : 44100936423
Status : Answered
Chosen Option : 2

Q.27 What is a block in CAD software?

- Ans 1. A pre-drawn object that can be reused multiple times.
2. A setting that controls line thickness.
3. A tool for creating 3D models.
4. A feature that deletes duplicate objects.

Question ID : 4410092551

Option 1 ID : 44100910249

Option 2 ID : 44100910251

Option 3 ID : 44100910248

Option 4 ID : 44100910250

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.28 When selecting plant and equipment for a manufacturing operation, which of the following factors will have the greatest impact on determining the break-even point (BEP)?

- Ans 1. The depreciation rate of the equipment over its useful life
2. The fixed operational costs associated with the equipment
3. The initial capital investment required for the equipment
4. The variability in the cost of raw materials used by the equipment

Question ID : 4410099182

Option 1 ID : 44100936480

Option 2 ID : 44100936481

Option 3 ID : 44100936479

Option 4 ID : 44100936482

Status : Answered

Chosen Option : 2

Q.29 For a cantilever beam subjected to a point load W at its free end, what is the slope at the free end?

- Ans 1. $\theta = (W L) / EI$
2. $\theta = (W L^2) / 3EI$
3. $\theta = (W L^2) / 2EI$
4. $\theta = (W L^2) / EI$

Question ID : 44100942272

Option 1 ID : 441009168607

Option 2 ID : 441009168610

Option 3 ID : 441009168609

Option 4 ID : 441009168608

Status : Answered

Chosen Option : 3

Q.30 Which of the following is the primary function of a helical compression spring?

- Ans 1. To convert rotational motion into linear motion
2. To store and release energy
3. To resist bending stresses
4. To prevent axial displacement

Question ID : 44100942319
Option 1 ID : 441009168793
Option 2 ID : 441009168791
Option 3 ID : 441009168792
Option 4 ID : 441009168794
Status : Answered
Chosen Option : 2

Q.31 Man machine chart is a special type of:

- Ans 1. multiple activity chart
2. flow process chart
3. string diagram
4. chronocycle graph

Question ID : 4410091091
Option 1 ID : 4410094357
Option 2 ID : 4410094358
Option 3 ID : 4410094359
Option 4 ID : 4410094360
Status : Not Attempted and Marked For Review
Chosen Option : --

Q.32 Which of the following metals is commonly alloyed with iron to produce tool steels?

- Ans 1. Lead
2. Tungsten
3. Zinc
4. Copper

Question ID : 4410092580
Option 1 ID : 44100910365
Option 2 ID : 44100910367
Option 3 ID : 44100910366
Option 4 ID : 44100910364
Status : Answered
Chosen Option : 2

Q.33 The length of a belt in a belt drive system is calculated using the formula $L = 2C + \pi(D1 + D2) + (D1 - D2)^2/4C$, where L is the total length of the belt, C is the centre distance, and D1, D2 are the diameters of the pulleys. What does the term $(D1 - D2)^2/4C$ represent?

- Ans
- 1. The effect of belt tension
 - 2. The additional length due to the difference in pulley sizes
 - 3. The correction factor for friction
 - 4. The extra length due to pulley alignment

Question ID : 4410093632
Option 1 ID : 44100914525
Option 2 ID : 44100914523
Option 3 ID : 44100914526
Option 4 ID : 44100914524
Status : Not Answered
Chosen Option : --

Q.34 What does the number '22' in the refrigerant R-22 indicate?

- Ans
- 1. A specific designation assigned based on chemical composition.
 - 2. The molecular weight of the refrigerant.
 - 3. The pressure required for refrigeration cycle operation.
 - 4. The boiling point of the refrigerant in °C.

Question ID : 44100941206
Option 1 ID : 441009164262
Option 2 ID : 441009164261
Option 3 ID : 441009164263
Option 4 ID : 441009164260
Status : Answered
Chosen Option : 1

Q.35 Which of the following CANNOT be considered as a part of a simple carburettor?

- Ans
- 1. Float chamber
 - 2. Throttle valve
 - 3. Nozzle with metering orifice
 - 4. Idling system

Question ID : 4410091925
Option 1 ID : 4410097685
Option 2 ID : 4410097686
Option 3 ID : 4410097688
Option 4 ID : 4410097687
Status : Answered
Chosen Option : 3

Q.36 A heavier flywheel is required in which of the following?

- Ans 1. Four stroke engines relative to two stroke engines
 2. Two stroke engines relative to four stroke engines
 3. Both two and four stroke require same type of flywheel
 4. Flywheel is not required in operation of two and four stroke engines

Question ID : 4410091924

Option 1 ID : 4410097682

Option 2 ID : 4410097681

Option 3 ID : 4410097683

Option 4 ID : 4410097684

Status : Answered

Chosen Option : 1

Q.37 Which of the following factors significantly affects the efficiency of a centrifugal compressor?

- Ans 1. The use of intercooling between compression stages.
 2. The shape and speed of the impeller.
 3. The presence of a crankshaft for motion transmission.
 4. The number of pistons used.

Question ID : 44100941196

Option 1 ID : 441009164220

Option 2 ID : 441009164221

Option 3 ID : 441009164223

Option 4 ID : 441009164222

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.38 Which of the following is a critical characteristic of a workpiece that influences process engineering decisions?

- Ans 1. The brand name of the raw material supplier
 2. The packaging method used for transportation
 3. The colour of the workpiece
 4. The machinability and hardness of the material

Question ID : 4410099115

Option 1 ID : 44100936214

Option 2 ID : 44100936215

Option 3 ID : 44100936212

Option 4 ID : 44100936213

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.39 What is the primary function of a bevel protractor?

- Ans 1. To measure the diameter of cylindrical objects
2. To measure and set angles precisely
3. To check the flatness of a surface
4. To measure linear dimensions with high accuracy

Question ID : 44100943143

Option 1 ID : 441009172046

Option 2 ID : 441009172044

Option 3 ID : 441009172045

Option 4 ID : 441009172043

Status : Answered

Chosen Option : 2

Q.40 Which of the following statements regarding strain energy in the elastic region is true?

- Ans 1. Strain energy increases permanently with each load cycle.
2. Strain energy is completely recoverable when the load is removed.
3. Strain energy is entirely lost as heat during unloading.
4. Strain energy is only partially recoverable after unloading.

Question ID : 44100941851

Option 1 ID : 441009166947

Option 2 ID : 441009166945

Option 3 ID : 441009166946

Option 4 ID : 441009166944

Status : Answered

Chosen Option : 2

Q.41 Why does a multi-plate clutch transmit more torque than a single-plate clutch?

- Ans 1. It has a larger diameter.
2. It has less contact area.
3. It has a stronger pressure plate.
4. It has more friction surfaces.

Question ID : 44100913953

Option 1 ID : 44100955626

Option 2 ID : 44100955628

Option 3 ID : 44100955625

Option 4 ID : 44100955627

Status : Answered

Chosen Option : 4

Q.42 How does throttle governing affect the efficiency of a steam turbine?

- Ans
- 1. Increases efficiency by improving heat recovery
 - 2. Does not affect efficiency
 - 3. Increases efficiency by reducing steam pressure drop
 - 4. Reduces efficiency due to throttling losses

Question ID : 44100941322
Option 1 ID : 441009164807
Option 2 ID : 441009164806
Option 3 ID : 441009164804
Option 4 ID : 441009164805
Status : Not Answered
Chosen Option : --

Q.43 The Delphi method is best described as:

- Ans
- 1. a quantitative method that applies moving averages for forecasting
 - 2. a method that forecasts by collecting expert opinions in multiple rounds
 - 3. a method that uses historical data for trend analysis
 - 4. a time-series technique for projecting future values

Question ID : 4410099125
Option 1 ID : 44100936255
Option 2 ID : 44100936253
Option 3 ID : 44100936252
Option 4 ID : 44100936254
Status : Answered
Chosen Option : 2

Q.44 The 'soap' present in soluble oil (a type of cutting fluid) acts as a/an:

- Ans
- 1. lubricating, cooling as well as emulsifying agent
 - 2. emulsifying agent only
 - 3. lubricating agent only
 - 4. cooling agent only

Question ID : 4410094929
Option 1 ID : 44100919545
Option 2 ID : 44100919544
Option 3 ID : 44100919542
Option 4 ID : 44100919543
Status : Answered
Chosen Option : 3

Q.45 What happens when the diameter of the shank of a bolt is made smaller than the core diameter of the thread (Dc)?

- Ans
- 1. The bolt becomes weaker and more likely to fail.
 - 2. The thread bears most of the load, and the shank is unaffected.
 - 3. The bolt becomes heavier and less efficient.
 - 4. The shank absorbs more energy, making the bolt stronger and better at absorbing shock.

Question ID : 4410098203
Option 1 ID : 44100932524
Option 2 ID : 44100932526
Option 3 ID : 44100932527
Option 4 ID : 44100932525
Status : Not Answered
Chosen Option : --

Q.46 In a four-stroke cycle petrol engine, during suction stroke:

- Ans
- 1. mixture of petrol and air is sucked in
 - 2. Suction stroke is intermittent, thus cannot be judged precisely
 - 3. only petrol is sucked in
 - 4. only air is sucked in

Question ID : 4410091916
Option 1 ID : 4410097651
Option 2 ID : 4410097652
Option 3 ID : 4410097650
Option 4 ID : 4410097649
Status : Answered
Chosen Option : 1

Q.47 Which of the following is an advantage of using the Hole Basis System in manufacturing?

- Ans
- 1. Eliminates the need for tolerances
 - 2. Easier machining of holes with standard tools
 - 3. Requires less precision in manufacturing
 - 4. Makes it difficult to achieve interchangeability

Question ID : 44100943521
Option 1 ID : 441009173537
Option 2 ID : 441009173535
Option 3 ID : 441009173536
Option 4 ID : 441009173538
Status : Answered
Chosen Option : 2

Q.48 Which of the following represents the relationship between hoop strain (ϵ_h) and longitudinal strain (ϵ_l) in a thin cylinder?

- Ans
- 1. $\epsilon_h = 1/2 \epsilon_l$
 - 2. $\epsilon_h = 1/4 \epsilon_l$
 - 3. $\epsilon_h = \epsilon_l$
 - 4. $\epsilon_h = 2\epsilon_l$

Question ID : 44100942361
Option 1 ID : 441009168953
Option 2 ID : 441009168954
Option 3 ID : 441009168952
Option 4 ID : 441009168951
Status : Answered
Chosen Option : 4

Q.49 What is the expression for the slope $\theta(x)$ of the deflection curve of a beam?

- Ans
- 1. $\theta(x) = y(x)$.
 - 2. $\theta(x) = \int y(x) dx$.
 - 3. $\theta(x) = dy/dx$.
 - 4. $\theta(x) = d^2y/dx^2$.

Question ID : 44100942081
Option 1 ID : 441009167854
Option 2 ID : 441009167855
Option 3 ID : 441009167853
Option 4 ID : 441009167852
Status : Answered
Chosen Option : 3

Q.50 The compression ratio in case of diesel engines lies in the range of:

- Ans
- 1. 24-28
 - 2. 2-3
 - 3. 16-20
 - 4. 8-10

Question ID : 4410091912
Option 1 ID : 4410097636
Option 2 ID : 4410097633
Option 3 ID : 4410097635
Option 4 ID : 4410097634
Status : Answered
Chosen Option : 3

Q.51 The glass transition temperature (T_g) of a polymer refers to:

- Ans 1. the temperature at which it transitions from glassy to rubbery state
2. the temperature at which it starts to burn
3. the temperature at which it becomes crystalline
4. the temperature at which it melts

Question ID : 4410091259
Option 1 ID : 4410095030
Option 2 ID : 4410095029
Option 3 ID : 4410095031
Option 4 ID : 4410095032
Status : Not Answered
Chosen Option : --

Q.52 The wages of a welder fabricating a structure is an example of a/an _____.

- Ans 1. direct cost
2. amplified cost
3. calculated cost
4. indirect cost

Question ID : 4410091087
Option 1 ID : 4410094342
Option 2 ID : 4410094341
Option 3 ID : 4410094344
Option 4 ID : 4410094343
Status : Not Answered
Chosen Option : --

Q.53 The load in a hydraulic dynamometer is controlled by ____.

- Ans 1. varying the electrical resistance
2. increasing the brake pedal force
3. adjusting the quantity of working fluid
4. changing the air pressure

Question ID : 44100913695
Option 1 ID : 44100954601
Option 2 ID : 44100954604
Option 3 ID : 44100954602
Option 4 ID : 44100954603
Status : Answered
Chosen Option : 3

Q.54 Which characteristic of Mixed Model Line Balancing allows flexibility in adjusting the output of different products?

- Ans
- 1. The production line must be stopped and reconfigured every time the product demand changes.
 - 2. Only identical products can be produced on the same assembly line.
 - 3. Products must have similar tasks and processing requirements to ensure smooth workflow.
 - 4. Each product should have entirely different operations to maximise variety.

Question ID : 4410099167

Option 1 ID : 44100936421

Option 2 ID : 44100936422

Option 3 ID : 44100936419

Option 4 ID : 44100936420

Status : Not Answered

Chosen Option : --

Q.55 A company produces a product with the following cost structure:

Fixed Costs = \$500,000

Variable Cost per Unit = \$25

Selling Price per Unit = \$50

If the company wants to achieve a profit of \$200,000, how many units must be sold?

- Ans
- 1. 28,000 units
 - 2. 35,000 units
 - 3. 20,000 units
 - 4. 14,000 units

Question ID : 4410099181

Option 1 ID : 44100936476

Option 2 ID : 44100936478

Option 3 ID : 44100936477

Option 4 ID : 44100936475

Status : Not Answered

Chosen Option : --

Q.56 How does the COP of a refrigeration system change with an increase in evaporator temperature?

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

Question ID : 44100941249

Option 1 ID : 441009164432

Option 2 ID : 441009164435

Option 3 ID : 441009164433

Option 4 ID : 441009164434

Status : Answered

Chosen Option : 1

Q.57 Which of the following units is used for specific gravity?

Ans 1. No units

2. kg/m^3

3. g/cm^3

4. m^3/kg

Question ID : 4410092976

Option 1 ID : 44100911939

Option 2 ID : 44100911936

Option 3 ID : 44100911937

Option 4 ID : 44100911938

Status : Answered

Chosen Option : 1

Q.58 Which of the following best describes the motion of the follower in a typical radial cam mechanism?

Ans 1. Reciprocating or oscillating motion perpendicular to cam rotation

2. Circular motion

3. Translational motion along the cam axis

4. Rotational motion synchronised with the cam

Question ID : 4410093485

Option 1 ID : 44100913949

Option 2 ID : 44100913947

Option 3 ID : 44100913948

Option 4 ID : 44100913950

Status : Answered

Chosen Option : 1

Q.59 What is the function of the WBLOCK command in AutoCAD?

Ans 1. To change the colour of a block

2. To write a block to an external file

3. To delete a block from the library

4. To create wireframe models

Question ID : 4410092553

Option 1 ID : 44100910258

Option 2 ID : 44100910257

Option 3 ID : 44100910259

Option 4 ID : 44100910256

Status : Not Answered

Chosen Option : --

Q.60 A self-energising brake is one in which ____.

- Ans
- 1. the brake operates without friction
 - 2. no external force is needed
 - 3. an external force is required to apply the brake
 - 4. the friction force helps in applying the braking force

Question ID : 44100913675

Option 1 ID : 44100954523

Option 2 ID : 44100954524

Option 3 ID : 44100954522

Option 4 ID : 44100954521

Status : Answered

Chosen Option : 2

Q.61 Which of the following is a key characteristic of an open cycle gas turbine?

- Ans
- 1. Uses a heat exchanger to reuse heat
 - 2. The working fluid is continuously recirculated
 - 3. The working fluid is exhausted to the atmosphere
 - 4. Operates only in a vacuum

Question ID : 44100941290

Option 1 ID : 441009164630

Option 2 ID : 441009164628

Option 3 ID : 441009164629

Option 4 ID : 441009164631

Status : Answered

Chosen Option : 3

Q.62 For a simply supported beam subjected to a uniformly distributed load (UDL) of intensity w (force per unit length) over its entire length L , what is the reaction force at each support?

- Ans
- 1. $(wL)/4$.
 - 2. $(wL)/8$.
 - 3. wL .
 - 4. $(wL)/2$.

Question ID : 44100942025

Option 1 ID : 441009167630

Option 2 ID : 441009167631

Option 3 ID : 441009167629

Option 4 ID : 441009167628

Status : Answered

Chosen Option : 4

Q.63 When a bolted joint is subjected to eccentric loading, which stress is primarily induced in the bolt in addition to shear stress?

- Ans 1. Bending stress
 2. Torsional stress
 3. Impact stress
 4. Bearing stress

Question ID : 4410098210
Option 1 ID : 44100932552
Option 2 ID : 44100932553
Option 3 ID : 44100932555
Option 4 ID : 44100932554
Status : Answered
Chosen Option : 1

Q.64 Two-stroke engines in comparison to four-stroke engines have:

- Ans 1. better power output and low mechanical simplicity
 2. better power output and greater mechanical simplicity
 3. low power output and greater mechanical simplicity
 4. low power output and low mechanical simplicity

Question ID : 4410091913
Option 1 ID : 4410097639
Option 2 ID : 4410097637
Option 3 ID : 4410097640
Option 4 ID : 4410097638
Status : Answered
Chosen Option : 2

Q.65 In an eddy current dynamometer, eddy currents are produced in the _____.

- Ans 1. rotating disc
 2. cooling fins
 3. bearings
 4. stator coils

Question ID : 44100913746
Option 1 ID : 44100954802
Option 2 ID : 44100954803
Option 3 ID : 44100954804
Option 4 ID : 44100954801
Status : Answered
Chosen Option : 4

Q.66 An Ideal fluid is one which has:

- Ans 1. no resistance to shear stress
 2. no velocity gradient
 3. quadratic relation between shear stress and velocity gradient
 4. linear behaviour between shear stress and velocity gradient

Question ID : 4410091387
Option 1 ID : 4410095544
Option 2 ID : 4410095543
Option 3 ID : 4410095542
Option 4 ID : 4410095541
Status : Answered
Chosen Option : 1

Q.67 Which of the following operations CANNOT be included between CNC machining centres?

- Ans 1. Drilling
 2. Tapping
 3. Welding
 4. Milling

Question ID : 4410094917
Option 1 ID : 44100919495
Option 2 ID : 44100919497
Option 3 ID : 44100919496
Option 4 ID : 44100919494
Status : Answered
Chosen Option : 3

Q.68 Which process is used to increase the strength of aluminum alloys through controlled heating and cooling?

- Ans 1. Precipitation hardening
 2. Quenching
 3. Normalising
 4. Annealing

Question ID : 4410092965
Option 1 ID : 44100911892
Option 2 ID : 44100911895
Option 3 ID : 44100911893
Option 4 ID : 44100911894
Status : Answered
Chosen Option : 2

Q.69 In oxyacetylene gas welding, the temperature at the inner cone of neutral flame is around:

- Ans 1. 3200°C
 2. 2600°C
 3. 2300°C
 4. 4000°C

Question ID : 4410094889
Option 1 ID : 44100919391
Option 2 ID : 44100919392
Option 3 ID : 44100919393
Option 4 ID : 44100919390
Status : Answered
Chosen Option : 1

Q.70 In order to move the cross slide, the feed screw is turned by rotating the:

- Ans 1. setover screw
 2. barrel
 3. square threaded screw
 4. handwheel

Question ID : 4410092167
Option 1 ID : 4410098607
Option 2 ID : 4410098605
Option 3 ID : 4410098608
Option 4 ID : 4410098606
Status : Answered
Chosen Option : 4

Q.71 The symbol used to represent 'Inspection' in a flow process chart used in a work study is given by (a/an):

- Ans 1. square
 2. arrow
 3. Dee
 4. triangle

Question ID : 441009875
Option 1 ID : 4410093488
Option 2 ID : 4410093487
Option 3 ID : 4410093490
Option 4 ID : 4410093489
Status : Answered
Chosen Option : 1

Q.72 If a tire gauge reads 35 psi, what is the absolute pressure inside the tire, assuming atmospheric pressure is 14.7 psi?

- Ans
- 1. 14.7 psi
 - 2. 20.3 psi
 - 3. 35 psi
 - 4. 49.7 psi

Question ID : 4410093179
Option 1 ID : 44100912731
Option 2 ID : 44100912732
Option 3 ID : 44100912733
Option 4 ID : 44100912734
Status : Answered
Chosen Option : 3

Q.73 What is the function of coolant in a drilling operation?

- Ans
- 1. To remove burrs from the hole
 - 2. To reduce heat and improve tool life
 - 3. To increase spindle speed
 - 4. To clean the machine table

Question ID : 4410091356
Option 1 ID : 4410095417
Option 2 ID : 4410095419
Option 3 ID : 4410095418
Option 4 ID : 4410095420
Status : Answered
Chosen Option : 2

Q.74 According to the ASHRAE numbering system, which of the following correctly represents the refrigerant R-134a?

- Ans
- 1. 1 Carbon, 2 Hydrogen, 3 Fluorine, 1 Chlorine atom
 - 2. 1 Carbon, 4 Hydrogen, 2 Fluorine atoms
 - 3. 2 Carbon, 2 Hydrogen, 4 Fluorine atoms
 - 4. 1 Carbon, 3 Hydrogen, 4 Fluorine atoms

Question ID : 44100941239
Option 1 ID : 441009164393
Option 2 ID : 441009164395
Option 3 ID : 441009164394
Option 4 ID : 441009164392
Status : Answered
Chosen Option : 3

Q.75 Why is it important to apply uniform pressure while mounting a strain gauge?

- Ans 1. To improve the flexibility of the gauge
 2. To avoid air gaps and ensure proper adhesion
 3. To increase the resistance of the strain gauge
 4. To prevent the gauge from overheating

Question ID : 44100943253
Option 1 ID : 441009172473
Option 2 ID : 441009172471
Option 3 ID : 441009172472
Option 4 ID : 441009172474
Status : Answered
Chosen Option : 2

Q.76 The atoms in a simple cubic unit cell touch along:

- Ans 1. the body diagonal
 2. the corner
 3. the edge
 4. the face diagonal

Question ID : 4410092576
Option 1 ID : 44100910348
Option 2 ID : 44100910351
Option 3 ID : 44100910350
Option 4 ID : 44100910349
Status : Answered
Chosen Option : 3

Q.77 In a transverse fillet weld subjected to a tensile force, the primary mode of stress in the weld throat is:

- Ans 1. bending stress
 2. tensile stress
 3. compressive stress
 4. shear stress

Question ID : 4410098458
Option 1 ID : 44100933567
Option 2 ID : 44100933564
Option 3 ID : 44100933565
Option 4 ID : 44100933566
Status : Answered
Chosen Option : 2

Q.78 Which material is commonly used for strain gauge sensing elements?

- Ans 1. Aluminium
 2. Silver
 3. Copper
 4. Constantan

Question ID : 44100943232
Option 1 ID : 441009172389
Option 2 ID : 441009172390
Option 3 ID : 441009172387
Option 4 ID : 441009172388
Status : Answered
Chosen Option : 4

Q.79 Which of the following factors does NOT affect surface tension?

- Ans 1. Presence of surfactants
 2. Surface area of the liquid
 3. Nature of the liquid
 4. Temperature

Question ID : 4410092979
Option 1 ID : 44100911949
Option 2 ID : 44100911948
Option 3 ID : 44100911950
Option 4 ID : 44100911951
Status : Answered
Chosen Option : 2

Q.80 If the properties such as velocity, pressure etc. change at a point with respect to time, the flow is called ____ flow.

- Ans 1. steady
 2. uniform
 3. unsteady
 4. non-uniform

Question ID : 4410091138
Option 1 ID : 4410094547
Option 2 ID : 4410094545
Option 3 ID : 4410094548
Option 4 ID : 4410094546
Status : Answered
Chosen Option : 3

Q.81 What is gear backlash?

- Ans 1. The hardness of the gear material
2. The clearance or play between meshing gear teeth
3. The total runout of a gear during rotation
4. The thickness of a single gear tooth

Question ID : 44100943700

Option 1 ID : 441009174250

Option 2 ID : 441009174247

Option 3 ID : 441009174248

Option 4 ID : 441009174249

Status : Answered

Chosen Option : 2

Q.82 A CAD object is rotated by 30° about the Z-axis. If the initial coordinates of a point are (4, 0), what will be the new coordinates after the rotation?

- Ans 1. (3.46, 2)
2. (4, 2)
3. (4, 1)
4. (0, 4)

Question ID : 4410091386

Option 1 ID : 4410095540

Option 2 ID : 4410095537

Option 3 ID : 4410095538

Option 4 ID : 4410095539

Status : Not Attempted and
Marked For Review

Chosen Option : --

Q.83 Slip and creep are related to the operation of:

- Ans 1. gear drive systems
2. all types of belt drive systems
3. V-belt drive systems only
4. flat belt drive systems only

Question ID : 4410093635

Option 1 ID : 44100914537

Option 2 ID : 44100914538

Option 3 ID : 44100914535

Option 4 ID : 44100914536

Status : Answered

Chosen Option : 4

Q.84 In a combined cycle power plant, which of the following is used to generate additional power after the gas turbine?

- Ans
- 1. Nuclear reactor
 - 2. Steam turbine
 - 3. Wind turbine
 - 4. Hydraulic turbine

Question ID : 4410091184

Option 1 ID : 4410094732

Option 2 ID : 4410094730

Option 3 ID : 4410094731

Option 4 ID : 4410094729

Status : Not Answered

Chosen Option : --

Q.85 Which of the following factors does NOT affect fluid pressure?

- Ans
- 1. Area of the surface
 - 2. Depth of the fluid
 - 3. Density of the fluid
 - 4. Gravitational acceleration

Question ID : 4410092980

Option 1 ID : 44100911954

Option 2 ID : 44100911952

Option 3 ID : 44100911953

Option 4 ID : 44100911955

Status : Answered

Chosen Option : 1