रेलवे भर्ती बोर्ड | RAILWAY RECRUITMENT BOARD

सीईएन ०१/२०२६ सहायक लोको पायलट (एएलपी) के पद पर भर्ती

CEN 01/2026 Recruitment of Assistant Loco Pilot (ALP)

सत्यमेव जयते

Test Date	05/11/2026
Test Time	4:00 PM - 5:00 PM
Subject	RRB ALP 2026 CBT 1

*** Note**
Correct Answer will carry 1 mark per Question.
Incorrect Answer will carry 1/3 Negative mark per Question.

1. Options shown in green color with a tick icon are correct.
2. Chosen option on the right of the question indicates the option selected by the candidate.

Section : **RRB ALP**

Q.1 If $\tan(9x-15)^\circ = \cot(8x+20)^\circ$, then find the value of x.

Ans
- ✗ A. 4
- ✗ B. 10
- ✓ C. 5
- ✗ D. 8

Q.2 **A person invested ₹56,000 at a rate of 12% per annum simple interest for 3 years. Find the amount (in ₹) he will receive after 3 years.**

Ans
- ✓ A. 76,160
- ✗ B. 75,160
- ✗ C. 78,160
- ✗ D. 77,160

Q.3 **Six boxes A, B, F, G, H and I are kept one over the other but not necessarily in the same order. Only two boxes are kept between I and B. Only G is kept above H. No box is kept below B. F is kept at some place above A. How many boxes are kept between A and F?**

Ans
- ✗ A. Two
- ✓ B. None
- ✗ C. Three
- ✗ D. One

Q.4 **A school plans to replace a rectangular garden measuring 49 m by 196 m with a square garden of the same area. What should be the side length (in metres) of the square garden?**

Ans
- ✓ A. 98
- ✗ B. 70
- ✗ C. 147
- ✗ D. 122

Q.5 **What will come in place of the question mark (?) in the following equation if '+' and '−' are interchanged and '×' and '÷' are interchanged?**

9 ÷ 5 + 10 × 2 − 3 = ?

Ans
- ✗ A. 55
- ✗ B. 50
- ✓ C. 43
- ✗ D. 40

Q.6 Seven friends, E, F, G, H, W, X and Y, are sitting in a straight line facing north. Only two people sit between Y and W. Only E sits to the right of X. Only two people sit between W and E. H sits at some place to the right of F but at some place to the left of G. Who sits third from the right end of the line?

Ans
- ✗ A. F
- ✗ B. X
- ✗ C. W
- ✓ D. G

Q.7 What should come in place of '?' in the given series?
28 33 39 46 54 63 ?

Ans
- ✗ A. 76
- ✓ B. 73
- ✗ C. 71
- ✗ D. 75

Q.8 Vikrant starts from Point A and drives 55 km towards the North. He then takes a right turn, drives 60 km, then turns right and drives 70 km. He then takes a right turn and drives 71 km. He takes a final right turn, drives 15 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 degrees turns only, unless specified.)

Ans
- ✓ A. 11 km to the east
- ✗ B. 12 km to the west
- ✗ C. 10 km to the east
- ✗ D. 13 km to the west

Q.9 X, Y, Z, A and B have different ages. Only one person is younger than X. A is older than B and B is older than Z. Z is older than X. Who is the oldest?

Ans
- ✗ A. Y
- ✗ B. X
- ✗ C. Z
- ✓ D. A

Q.10 A dress has a marked price of ₹1,200. What is the percentage discount if the selling price is ₹960?

Ans
- ✓ A. 20%
- ✗ B. 15%
- ✗ C. 25%
- ✗ D. 30%

Q.11 Refer to the following letter series and answer the question
(Left) D G J M B W Z L E C I R U H Y L F K V X P W T O Q A (Right)

How many such consonants are there each of which is immediately preceded by a vowel and
also immediately followed by a vowel?

Ans
- ✗ A. Two
- ✗ B. One
- ✗ C. More than three
- ✓ D. Three

Q.12 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
- ✗ A. IF-BJ
- ✗ B. YV-RZ
- ✓ C. RO-KI
- ✗ D. JG-CK

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

NJG−DZW
DZW−TPM

Ans
- ✗ A. VRO−KHD
- ✓ B. VRO−LHE
- ✗ C. VQM−LHE
- ✗ D. VQM−KGD

Q.14 The position(s) of how many letters will remain unchanged if each letter in the word POINTED is arranged in the English alphabetical order?

Ans
- ✗ A. Three
- ✗ B. None
- ✗ C. One
- ✓ D. Two

Q.15 The position(s) of how many letters will remain unchanged if each letter in the word HUSBAND is arranged in the English alphabetical order?

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

Q.16 Which of the following properties of simple permanent tissue helps aquatic plants to float?

Ans
- ✗ A. Unevenly thickened corners of a cell
- ✗ B. Hardness from lignified sclerenchyma
- ✓ C. Presence of air spaces in parenchyma
- ✗ D. Flexibility due to pectin in collenchyma

Q.17 Why is electrolysis of water classified as a decomposition reaction?

Ans
- ✗ A. Electricity heats the water
- ✓ B. Water splits into hydrogen and oxygen
- ✗ C. Hydrogen replaces oxygen
- ✗ D. Oxygen combines with electrodes

Q.18 In this question, a group of number/symbol is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol are to be followed directly as given in the table.

Number/symbol	4	3	+	%	8	6	@	!	&	$
Code	Y	W	H	O	I	J	C	M	N	K

Conditions –
(i) If the first element is a symbol and the last element is a number, interchange the codes of the first and the last elements.
(ii) If the second and third elements are odd numbers, code the third element as the code of the second element.
(iii) If the fourth element is a symbol and the fifth element is a number, code both elements as ©.

What is the code for the following group of number-symbols?
4 3 + % 8

Ans
- ✗ A. YCHOI
- ✗ B. YWHOI
- ✗ C. YWHOM
- ✓ D. YWH©©

Q.19 This question is based on the five, three-digit numbers given below.
(Left) 682 315 947 524 761 (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 added to the first digit of the lowest number?

Ans
✗ A. 8
✓ B. 7
✗ C. 9
✗ D. 10

Q.20 This question is based on the following words.

ACT LAG GEL IDS

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
✓ A. Four
✗ B. One
✗ C. Three
✗ D. Two

Q.21 An online learning platform reduced its annual subscription fee by 25% during an admission campaign and later increased the discounted subscription fee by 20%. If the original subscription fee was ₹8,000, what is the final subscription fee (in ₹)?

Ans
✗ A. 7,000
✓ B. 7,200
✗ C. 7,400
✗ D. 7,600

Q.22 What should come in place of '?' in the given series?
42 60 76 90 102 112 ?

Ans
✓ A. 120
✗ B. 122
✗ C. 118
✗ D. 121

Q.23 Each of the digits in the number 36784521 is arranged in descending order from left to right. Which of the following digits will be fifth from the right in the new number thus formed?

Ans
✗ A. 4
✗ B. 7
✓ C. 5
✗ D. 6

Q.24 Two trains, T and U, are moving towards each other on parallel tracks. Train T is 210 m long and is moving at 40 km/hr, while Train U is 240 m long and is moving at 50 km/hr. How long (in seconds) will it take for the two trains to cross each other from the moment they meet?

Ans
✗ A. 21.6 sec
✓ B. 18 sec
✗ C. 21 sec
✗ D. 24 sec

Q.25 If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '–', then what will come in place of the question mark (?) in the following equation?
40 D 72 C 115 A 23 B 12 = ?

Ans
✗ A. 22
✓ B. 28
✗ C. 24
✗ D. 25

Q.26 **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.)

6 - 36 - 46 - 56
8 - 64 - 74 - 84

Ans
- ✗ A. 10 - 100 - 120 - 130
- ✗ B. 15 - 225 - 235 - 255
- ✗ C. 11 - 131 - 141 - 151
- ✓ D. 9 - 81 - 91 - 101

Q.27 **Simplify $(14pq + 15q)^2 - (14pq - 15q)^2$.**

Ans
- ✗ A. $420pq^2$
- ✓ B. $840pq^2$
- ✗ C. $840p^2q$
- ✗ D. $420p^2q^2$

Q.28 Find the fourth proportional of $\sqrt{48}$, $4\sqrt{3}$ and $\sqrt{169}$.

Ans
- ✗ A. 14
- ✗ B. $\sqrt{13}$
- ✗ C. $\sqrt{12}$
- ✓ D. 13

Q.29 **A pencil appears bent when partially immersed in a glass of water. Which phenomenon best explains this observation, and where does it occur?**

Ans
- ✓ A. Refraction at the water-air interface
- ✗ B. Dispersion of light in water
- ✗ C. Reflection at the water surface
- ✗ D. Scattering of light by water molecules

Q.30 **The HCF of two numbers is 18, and their LCM is 360. If one of the numbers is 90, find the other number.**

Ans
- ✗ A. 90
- ✗ B. 120
- ✗ C. 180
- ✓ D. 72

Q.31 **How do companion cells contribute to the function of sieve tubes?**

Ans
- ✓ A. They monitor the loading and unloading of sugars.
- ✗ B. They provide structural support to the phloem.
- ✗ C. They regulate latex storage in sieve tubes.
- ✗ D. They store food materials and resins.

Q.32 **In this question, a group of number/symbol is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol are to be followed directly as given in the table.**

Number/symbol	3	@	8	5	$	#	2	%	7	&	4	9	1	6
Code	K	F	U	P	L	D	B	Q	R	E	T	A	H	M

Conditions –
(i) If the first element is a symbol and the last element is a number, interchange the codes of the first and last elements.
(ii) If the second and third elements are even numbers, the third element is coded as the code of the second element.
(iii) If the fourth element is a symbol, code the fourth element as ©.

What is the code for the following group of number-symbols?
9865@

Ans
- ✗ A. AUMPM
- ✓ B. AUUPF
- ✗ C. AUMPF
- ✗ D. AUUPM

Q.33 **Imagine a city where smokeless tobacco use is very common. Which public health problem is likely to be most prevalent?**

Ans
- ✗ A. Increase in bone fractures
- ✗ B. Rise in skin allergies
- ✓ C. High rates of oral cancer
- ✗ D. Decrease in viral infections

Q.34 **Seven people, A, B, C, D, E, F and G are sitting in a row, facing north. C sits second from the right end of the row. Only three people sit to the left of B. D is the immediate neighbour of A and E. F sits second to the right of E. How many people sit between G and D?**

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

Q.35 **A shopkeeper bought six identical mobile phones for ₹60,000. He sold two of them for ₹57,000. What was his gain percentage on the two mobile phones sold?**

Ans
- ✗ A. 184%
- ✗ B. 187%
- ✗ C. 182%
- ✓ D. 185%

Q.36 **A borrower repaid a loan through two equal yearly installments of ₹35,280 each, with the first installment due at the end of the first year. If interest was charged at 5% per annum compounded annually, what was the total interest paid (in ₹)?**

Ans
- ✗ A. 5,280
- ✗ B. 4,640
- ✗ C. 4,800
- ✓ D. 4,960

Q.37 **In this question, a group of numbers/symbols is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then the codes for the respective number/symbol are to be followed directly as given in the table.**

Number/Symbol	4	5	?	!	9	7	$	#	6	+
Code	B	O	Q	P	S	X	M	F	W	V

Conditions –
(i) If the first element is a symbol and the last element is a number, interchange their codes.
(ii) If the second and third elements are odd numbers, code the third as the code of the second.
(iii) If the fourth element is a symbol and the fifth element is a number, code both as ©.

What will be the code for the following group?
4 5 ? ! 9

Ans
✗ A. BOWPS
✗ B. BOQPM
✓ C. BOQ©©
✗ D. FOQPS

Q.38 **This question is based on the following words.**

DUB OWE SKI FIN

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
✗ A. Three
✗ B. One
✗ C. Four
✓ D. Two

Q.39 If $4(\sec^2 59^\circ - \cot^2 31^\circ) + \frac{6\sqrt{2}}{7}\cos 45^\circ - 2\alpha \tan^2 56^\circ \times \tan^2 34^\circ = 2\alpha$, then the value of α is:

Ans
✓ A. $1\frac{3}{14}$
✗ B. $1\frac{5}{14}$
✗ C. $2\frac{5}{14}$
✗ D. $2\frac{3}{14}$

Q.40 **Seven boxes C, D, E, F, X, Y and Z are kept one over the other but not necessarily in the same order. Only C is kept above Y. Only E is kept between Y and X. Only Z is kept below D.**
How many boxes are kept between F and Z?

Ans
✗ A. Four
✗ B. Three
✗ C. Two
✓ D. One

Q.41 **Refer to the following series and answer the question that follows.**
(Left)
L U F I T U A E B A D A Y J H F A K A N F G D (Right)
How many letters are there in the English alphabetical order between the letter which is second from the right end and third from the left end of the series?

Ans
✗ A. Three
✗ B. One
✓ C. None
✗ D. Two

Q.42 Seven people Jack, Kanika, Mehul, Nidhi, Siya, Tina and Yogesh are sitting around a circular table facing the centre. Yogesh is the immediate neighbour of both Kanika and Mehul and second to the left of Nidhi. Kanika sits second to the right of Jack. Tina is not an immediate neighbour of Nidhi. How many people sit between Yogesh and Jack when counted from the left of Yogesh?

Ans
- ✗ A. One
- ✗ B. None
- ✓ C. Two
- ✗ D. Three

Q.43 The 7-digit number 43A762B is divisible by 12. What is the minimum value of (A + B)?

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

Q.44 Which situation best illustrates the scientific definition of work done by a force?

Ans
- ✗ A. Carrying a bag at constant speed across a level floor
- ✗ B. Placing a book gently onto a table without sliding it
- ✗ C. Pushing against a stationary wall with maximum effort
- ✓ D. A person lifts a box vertically upward against gravity

Q.45 In this question, a group of number/symbol is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol are to be followed directly as given in the table.

Number/symbol	1	#	6	@	3	%	8	&	5	$	2	+	9	4
Code	H	M	B	T	K	P	A	F	U	R	D	W	L	Q

Conditions –
(i) If the third element is an odd number, code the second element as ©.
(ii) If the first element is a symbol, interchange the codes for the first and last elements.
(iii) If the fifth element is a symbol, the third element should be coded with the code for the fifth element.

What is the code for the following group of numbers?
85326

Ans
- ✗ A. A©QDB
- ✓ B. A©KDB
- ✗ C. AUKDB
- ✗ D. A©KDA

Q.46 One pipe can fill a tank in 12 min while another pipe can empty completely filled tank in 14 min. If both the pipes are operated together on empty tank, how long (in min) will it take to fill two-third of the tank?

Ans
- ✗ A. 112
- ✗ B. 168
- ✓ C. 56
- ✗ D. 224

Q.47 Each of P, Q, R, S, T, U and V has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. S has an exam on Thursday. Only two people have exams between U and S. P has an exam on the day immediately after U. Only one person has an exam between R and Q. V has an exam on the day immediately before S. Q has an exam on the day immediately after T. On which day does R have an exam?

Ans
- ✗ A. Saturday
- ✓ B. Friday
- ✗ C. Tuesday
- ✗ D. Thursday

Q.48 A river 10 m deep and 36 m wide is flowing at a speed of 2.7 km/hr. Find the amount of water (in m^3) that runs into the sea per minute.

Ans
- ✔ A. 16,200
- ✘ B. 10,260
- ✘ C. 12,600
- ✘ D. 12,000

Q.49 38 is related to 210 following a certain logic. Following the same logic, 30 is related to 170. To which of the following is 22 related, following the same logic?
(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

Ans
- ✘ A. 128
- ✘ B. 132
- ✔ C. 130
- ✘ D. 126

Q.50 Each letter in the word FROCKED is arranged in the English alphabetical order. How many letters are there in the English alphabetical order between the letter which is third from the left and the one which is second from the right in the new letter cluster thus formed?

Ans
- ✘ A. 12
- ✘ B. 10
- ✔ C. 9
- ✘ D. 8

Q.51 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)

Ans
- ✘ A. LI−GD
- ✔ B. VS−PP
- ✘ C. BY−WT
- ✘ D. NK−IF

Q.52 A question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and decide the appropriate answer.

Question:
Among 5 sticks, Q, L, M, R and E, each having a different height, which stick is the tallest?

Statements:
(I) M is taller than only one stick. R is shorter than L but taller than Q.
(II) R is taller than E.

Ans
- ✘ A. Data in statement II alone is sufficient to answer the question while data in statement I is not.
- ✔ B. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.
- ✘ C. Data in both statements I and II together are NOT sufficient to answer the question.
- ✘ D. Data in statement I alone is sufficient to answer the question while data in statement II is not.

Q.53 What should come in place of the '?' in the given series?

36,44,60,84,116, ?

Ans
- ✘ A. 155
- ✘ B. 158
- ✘ C. 157
- ✔ D. 156

Q.54 A wildlife survey reported that the deer population in a reserve became 13,200 after a 10% annual increase. What was the deer population one year earlier?

Ans
- ✔ A. 12000
- ✘ B. 12120
- ✘ C. 14520
- ✘ D. 11880

Q.55 Each of E, X, P, O, R, T and S has exam on a different day of a week starting from Monday and ending on Sunday of the same week. Only three people have exam between E and P. P has exam on the last day of the week. T has exam on the second day after R. O has exam immediately the day before S. X doesn't have exam on Friday. How many people have exam after X?

Ans
- ✘ A. Five
- ✘ B. Four
- ✘ C. Two
- ✔ D. Six

Q.56 A food delivery company records the number of completed deliveries over seven days as 48, 50, 48, 46, x, 50, and 48, where x is a positive integer. If 48 remains the unique mode, determine the smallest possible value of x.

Ans
- ✘ A. 50
- ✘ B. 48
- ✔ C. 1
- ✘ D. 46

Q.57 If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '–', then what will come in place of the question mark (?) in the following equation?
107 D 132 A 4 B 3 C 11 = ?

Ans
- ✘ A. 14
- ✔ B. 19
- ✘ C. 16
- ✘ D. 15

Q.58 TXBZ is related to AEIG in a certain way based on the English alphabetical order. In the same way, DHLJ is related to KOSQ. To which of the following is RVZX related, following the same logic?

Ans
- ✔ A. YCGE
- ✘ B. YDFN
- ✘ C. YBFE
- ✘ D. YCFE

Q.59 Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

VAN16 WCP14 XER12 YGT10 ?

Ans
- ✘ A. YGV8
- ✘ B. ZGV8
- ✔ C. ZIV8
- ✘ D. YIV8

Q.60 Zoya starts from point A and drives 24 km towards the East. She then takes a right turn and drives 20 km. She then takes a right turn and drives 22 km, takes a right turn and drives 31 km. She takes a final left turn and drives 2 km and stops at point B. How far (shortest distance) and towards which direction should she drive in order to reach Point A again? (All turns are 90-degree turns only unless specified.)

Ans
- ✘ A. 7 km to the South
- ✘ B. 9 km to the North
- ✘ C. 8 km to the West
- ✔ D. 11 km to the South

Q.61 **Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on first number results in the second number. Similarly, certain mathematical operation on second number results in the third number and so on. Which of the given options follows the same set of operations as in question?**
(NOTE – A two/three digit number cannot be broken into individual digits for operations e.g. if 37 is followed by 10, the operation cannot be 3+7 as a two digit number cannot be broken into individual digits)
27 - 31 - 248 - 237
11 - 15 - 120 - 109

Ans
- ✗ A. 3 - 8 - 64 - 54
- ✗ B. 1 - 4 - 28 - 17
- ✗ C. 3 - 7 - 70 - 60
- ✓ D. 26 - 30 - 240 - 229

Q.62 **Select the pair that follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.**

VZY−XBA
CGF−EIH

Ans
- ✗ A. BEC−DHG
- ✓ B. BFE−DHG
- ✗ C. BFE−CHF
- ✗ D. BEC−CGF

Q.63 **Hitesh is three times as old as his son, and his daughter is 3 years younger than the son. If the sum of the ages of these three people 3 years ago was 83 years, then Hitesh's present age (in years) is:**

Ans
- ✗ A. 68
- ✓ B. 57
- ✗ C. 64
- ✗ D. 67

Q.64 **Identify the non-metal oxide from the following which when dissolved in water does NOT formed acid.**

Ans
- ✗ A. NO_2
- ✗ B. CO_2
- ✓ C. NO
- ✗ D. SO_2

Q.65 **A question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and decide the appropriate answer.**

Question:
Among 5 sticks, A, E, Z, M and D, each having a different height, which stick is the tallest?

Statements:
(I) M is taller than E. E is taller than D.
(II) D is shorter than A but taller than Z.

Ans
- ✗ A. Data in statement II alone is sufficient to answer the question while data in statement I is not.
- ✗ B. Data in statement I alone is sufficient to answer the question while data in statement II is not.
- ✓ C. Data in both statements I and II together are NOT sufficient to answer the question.
- ✗ D. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.

Q.66 **A delivery van consumes 20 litres of diesel to travel 260 km. What is the van's average mileage (in km per litre)?**

Ans
- ✗ A. 12
- ✗ B. 14
- ✓ C. 13
- ✗ D. 10

Q.67 A box of mass 5 kg is pushed along a horizontal surface with a constant force of 20 N for 4 meters. If the box starts from rest and experiences a frictional force of 5 N, what is the final kinetic energy of the box according to the work energy theorem?

Ans
- ✔ A. 60 J
- ✘ B. 15 J
- ✘ C. 20 J
- ✘ D. 80 J

Q.68 In a quadrilateral ABCD, the measure of $\angle A$ is 19° more than $\angle C$, $\angle B$ is 24° less than $\angle C$ and $\angle D$ is 8° more than twice the $\angle B$. Find the value of $\angle A + \angle D - \angle C$.

Ans
- ✘ A. 129°
- ✘ B. 137°
- ✔ C. 141°
- ✘ D. 108°

Q.69 Chords AB and CD of a circle intersect at a point T inside the circle. If AB = 27 cm, AT = 16 cm and TC = 20 cm, then CD (in cm) is equal to:

Ans
- ✘ A. 31.2
- ✘ B. 35.6
- ✔ C. 28.8
- ✘ D. 22.3

Q.70 A car's radiator should contain a solution of 63% antifreeze. A motorist has 4 litres of 23% antifreeze. How many litres (rounded off to 2 decimal places) of 99% antifreeze liquid should he add to his solution to produce a 63% antifreeze?

Ans
- ✔ A. 4.44
- ✘ B. 7.21
- ✘ C. 6.05
- ✘ D. 10.25

Q.71 An event management company purchased tickets worth ₹12,000 and sold them to a booking partner at a 15% profit. The booking partner then sold the tickets at a 10% profit on the purchase price. What was the final selling price (in ₹)?

Ans
- ✘ A. 14,580
- ✔ B. 15,180
- ✘ C. 15,400
- ✘ D. 13,800

Q.72 Which of the following numbers is divisible by both 46 and 41?

Ans
- ✘ A. 63842
- ✘ B. 60607
- ✘ C. 62810
- ✔ D. 62238

Q.73 A rainwater harvesting tank is in the shape of a hemisphere of radius 3.5 m. During heavy rainfall, the tank gets completely filled. If the water from this tank is used to fill cylindrical buckets of radius 0.35 m and height 0.7 m, what is the maximum number of buckets that can be completely filled?

Ans
- ✘ A. 313
- ✘ B. 373
- ✘ C. 353
- ✔ D. 333

Q.74 **Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?**

GUL 2 JSJ -4 MQH 8 ? SMD 32

Ans

- ✔ A. POF -16
- ✘ B. HJI -43
- ✘ C. KOI -21
- ✘ D. KYT -11

Q.75 **Refer to the following series and answer the question that follows.**
(Left)
E I I N T I K E M R A H G D A H B G K I D F H (Right)
How many letters are there in the English alphabetical order between the letter which is seventh from the right end and second from the left end of the series?

Ans

- ✘ A. Five
- ✔ B. Six
- ✘ C. Seven
- ✘ D. Eight

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