सत्यमेव जयते

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)

Test Date	03/11/2026
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 **A shopkeeper buys 57 dozen articles at ₹720 per dozen. He sells each article for ₹81. What is his profit percentage?**

Ans
- ✗ A. 34%
- ✓ B. 35%
- ✗ C. 37%
- ✗ D. 33%

Q.2 **Three business partners P, Q, and R invest capitals of ₹4,40,000, ₹1,50,000 and ₹2,00,000, respectively, in a business. They are entitled to 5% per annum interest on their capitals before the division of profit. The remaining profit after paying interest on capital is to be distributed among them in the ratio of their capitals. At the end of the year, they make a total profit of ₹1,11,232. Find the share of profit received by R.**

Ans
- ✗ A. ₹18,160
- ✗ B. ₹47,452
- ✗ C. ₹35,620
- ✓ D. ₹28,160

Q.3 **Match the following examples with their respective groups.**

Organism	Group
1. Marchantia	A. Thallophyta
2. Ferns	B. Bryophyta
3. Spirogyra	C. Pteridophya

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

Q.4 **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. IG−BC
- ✗ B. DB−XV
- ✗ C. RP−LJ
- ✗ D. XV−RP

Q.5 The cost of a bag is raised by 15% in January and then by 5% in February. If the original cost was ₹800, what is the price after both increases?

Ans
- ✗ A. ₹900
- ✗ B. ₹1000
- ✓ C. ₹966
- ✗ D. ₹960

Q.6 Each of A, B, E, F, G, H and I 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 F and H. Only one person has exam between H and E. A has exam on Wednesday. G has exam on one of the days after B but on one of the days before I. F has exam on Monday. How many people have exam between G and E?

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

Q.7 What should come in place of '?' in the given series?
5 49 88 122 151 175 ?

Ans
- ✗ A. 182
- ✗ B. 176
- ✓ C. 194
- ✗ D. 186

Q.8 BWDK is related to FAHO in a certain way based on the English alphabetical order. In the same way, MLGI is related to QPKM. To which of the given options is NKHO related, following the same logic?

Ans
- ✗ A. ROLT
- ✓ B. ROLS
- ✗ C. SPMT
- ✗ D. OMKS

Q.9 Which famous Indian playback singer was honored with the Padma Bhushan at the Padma Awards 2026?

Ans
- ✗ A. Kavita Krishnamurthy
- ✓ B. Alka Yagnik
- ✗ C. Shreya Ghoshal
- ✗ D. Sunidhi Chauhan

Q.10 If + means -, - means ×, × means ÷, and ÷ means +, then what will come in place of the question mark (?) in the following equation?

31 - 15 ÷ 22 + 153 × 9 = ?

Ans
- ✗ A. 420
- ✓ B. 470
- ✗ C. 450
- ✗ D. 490

Q.11 OQTU is related to SUXY in a certain way based on the English alphabetical order. In the same way, EGJK is related to IKNO. To which of the following is FHKL related, following the same logic?

Ans
- ✗ A. JLNP
- ✗ B. JKNP
- ✗ C. JMNQ
- ✓ D. JLOP

Q.12 **If the mean proportional between two numbers is 24 and one of the numbers is 6, what is the other number?**

Ans
- ✓ A. 96
- ✗ B. 144
- ✗ C. 48
- ✗ D. 12

Q.13 **Find the compound interest on ₹4,450 at the rate of 20% per annum, compounded half-yearly, for 1 year.**

Ans
- ✗ A. ₹967.25
- ✗ B. ₹985.25
- ✓ C. ₹934.50
- ✗ D. ₹914.50

Q.14 **In this question, 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.**
Among 5 poles, W,O,K,G and Y each having a different height, which pole is the shortest?
(I)K is taller than only two poles. W is shorter than K and O is shorter than W
(II)G is taller than Y

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

Q.15 **If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '−', what will be come in place of question mark '?' in the following equation?**

16 B 3 D 38 A 19 C 18 = ?

Ans
- ✗ A. 66
- ✗ B. 68
- ✗ C. 62
- ✓ D. 64

Q.16 **The value of $2\,\text{cosec}^2 31° \cot^2 59° - \sin^2 31° - \sin^2 59° - \cot^2 59°$ is equal to:**

Ans
- ✗ A. $\cot^2 31°$
- ✗ B. $\tan^2 59°$
- ✓ C. $\sec^2 31°$
- ✗ D. $\sec^2 59°$

Q.17 **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)
25 - 31 - 19 - 95
41 - 47 - 35 - 175

Ans
- ✗ A. 40 - 45 - 33 - 165
- ✗ B. 12 - 18 - 4 - 24
- ✗ C. 39 - 46 - 34 - 204
- ✓ D. 17 - 23 - 11 - 55

Q.18 Seven people, A, B, C, I, J, K and L are sitting in a row, facing north.
No one sits to the right of C. Only three people sit between C and I. Only two people sit between I and B. J sits third to the left of K. L sits to the immediate right of K.
How many people sit between A and B?

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

Q.19 The sum of the ages of Stan and Benedict is 98 years. Four years ago, Benedict's age was half of Stan's then age. How old (in years) is Stan at present?

Ans
- ✓ A. 64
- ✗ B. 68
- ✗ C. 62
- ✗ D. 63

Q.20 Refer to the following letter series and answer the question
(Left) G J M P H F L U X I B E C O Q J N Y S Z W R T D (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. One
- ✗ B. Four
- ✓ C. Three
- ✗ D. Two

Q.21 A shopkeeper sells sugar at ₹100 in July, ₹80 in August, and ₹120 in September. If the quantities sold were 10 kg, 16 kg, and 14 kg, respectively, what is the average selling price per kg across these months?

Ans
- ✗ A. ₹98
- ✗ B. ₹105
- ✗ C. ₹95
- ✓ D. ₹99

Q.22 A car's radiator should contain a solution of 62% antifreeze. A motorist has 6 litres of 21% antifreeze. How many litres (rounded off to 2 decimal places) of 71% antifreeze liquid should he add to his solution to produce a 62% antifreeze?

Ans
- ✗ A. 23.51
- ✗ B. 30.46
- ✓ C. 27.33
- ✗ D. 29.31

Q.23 The position(s) of how many letters will remain unchanged if each letter in the word UNLEASH is arranged in the English alphabetical order?

Ans
- ✗ A. TWO
- ✗ B. THREE
- ✓ C. ONE
- ✗ D. ZERO

Q.24 Which of the following is the reason for transporting sugars from roots to buds in spring?

Ans
- ✗ A. Roots need sugars to absorb water
- ✗ B. Leaves need minerals for photosynthesis
- ✓ C. Buds require energy to grow after dormancy
- ✗ D. Stems store excess minerals

Q.25 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. JEA
- ✘ B. UPK
- ✘ C. NID
- ✘ D. KFA

Q.26 AB is parallel to CD. A transversal PQ intersects AB and CD at E and F, respectively, and ∠PEB = 69°. G is a point between AB and CD such that ∠BEG = 33° and ∠GFE = 17°.
What is the measure of ∠EGF?

Ans
- ✘ A. 93°
- ✔ B. 85°
- ✘ C. 71°
- ✘ D. 86°

Q.27 A sound wave has frequency f and wavelength λ in air. Without changing the source, the wavelength becomes 2λ in another medium. What happens to the speed of sound?

Ans
- ✘ A. Speed becomes half
- ✔ B. Speed becomes double
- ✘ C. Speed remains same
- ✘ D. Speed becomes four times

Q.28 This question is based on the following words
MAT COP RUG DEN
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. How many letter-clusters thus formed contain no vowel?

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

Q.29 Which one of the following words was added to the Preamble of India through the 42nd Constitutional Amendment, 1976?

Ans
- ✘ A. Dignity
- ✘ B. Justice
- ✘ C. Fraternity
- ✔ D. Integrity

Q.30 A solid right circular cone has base radius 6 cm and height 8 cm. It is completely melted and the metal is recast into small solid spheres, each of radius 2 cm.
What is the maximum number of complete spheres that can be made? (Use π = 22/7)

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

Q.31 The position (s) of how many letters will remain unchanged if each letter in the word "KURBASHING" is arranged in the English alphabetical order?

Ans
- ✘ A. Two
- ✘ B. Three
- ✔ C. None
- ✘ D. One

Q.32 A parent invests a certain amount in a children's future fund at 10% per annum. After 2 years, the maturity amount under compound interest, compounded annually is ₹50 more than it would have been under simple interest. Find the original investment (in ₹).

Ans
- ✗ A. 12,500
- ✗ B. 10,000
- ✓ C. 5,000
- ✗ D. 2,500

Q.33 The 7-digit number 54A177B is divisible by 12. What is the minimum value of (A + B)?

Ans
- ✗ A. 6
- ✗ B. 4
- ✗ C. 7
- ✓ D. 3

Q.34 Which condition will favour maximum photosynthesis?

Ans
- ✓ A. High light intensity, adequate CO_2, optimum temperature
- ✗ B. Low light intensity, high CO_2, low temperature
- ✗ C. High oxygen, low light intensity, high temperature
- ✗ D. Low CO_2, high light intensity, optimum temperature

Q.35 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	#	1	%	6	&	9	$	2	+	5	7
Code	K	T	A	M	H	P	B	F	W	R	D	U	L	Q

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

What is the code for the following group of number-symbols?
958+1

Ans
- ✗ A. WLAUH
- ✗ B. ©LWUH
- ✓ C. ©LAUH
- ✗ D. ©LAUW

Q.36 This question is based on the five, three-digit numbers given below.
(Left) 592 847 316 925 684 (Right)
(Example- 697 – First digit = 6, second digit = 9 and third digit = 7)
NOTE - All operations to be done from left to right.
What will be the resultant if the third digit of the highest number is added to the second digit of the lowest number?

Ans
- ✗ A. 4
- ✗ B. 12
- ✗ C. 11
- ✓ D. 6

Q.37 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?

39 B 4 A 3 C 27 D 41 = ?

Ans
- ✓ A. 38
- ✗ B. 39
- ✗ C. 40
- ✗ D. 36

Q.38 What should come in place of '?' in the given series?
69 60 49 36 21 ?

Ans
- ✗ A. 7
- ✗ B. 5
- ✓ C. 4
- ✗ D. 3

Q.39 Refer to the following series and answer the question. (Counting to be done from left to right only.) (All numbers are single-digit numbers only.)
(Left) 1 3 4 6 7 3 9 7 8 5 8 3 2 4 6 6 7 3 5 9 6 7 1 3 4 8 3 (Right)
How many such even digits are there, each of which is immediately preceded by a perfect square and immediately followed by an odd digit? (NOTE: 1 is also a perfect square.)

Ans
- ✗ A. None
- ✗ B. Two
- ✓ C. More than two
- ✗ D. One

Q.40 In a certain code language, 'LASH' is coded as '62' and 'MOVI' is coded as '43'.
What is the code for 'XRGC' in the given code language?

Ans
- ✗ A. 51
- ✓ B. 50
- ✗ C. 52
- ✗ D. 57

Q.41 In this question, 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.
Among 5 poles, A,W,V,G and E each having a different height, which pole is the shortest?
(I)G is shorter than only three poles. A is taller than W.
(II)G 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. Both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.
- ✗ C. 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.42 PQRS is a trapezium in which PQ is parallel to SR. The perpendicular from Q meets SR at T. The lengths of non-parallel sides, PS = QR = 24 cm and ∠QRT = 45°, then find the distance of PQ from SR.

Ans
- ✗ A. $25\sqrt{2}$ cm
- ✗ B. 6 cm
- ✓ C. $12\sqrt{2}$ cm
- ✗ D. $24\sqrt{3}$ cm

Q.43 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	5	@	2	9	$	#	8	%	1	&	4	7	3	6
Code	L	F	B	A	R	D	U	Q	H	E	T	P	K	M

Conditions –
(i) If the first element is a symbol, code the second element as ©.
(ii) If the third element is a symbol, code the fifth element as ©.
(iii) If the fourth element is an odd digit, code the third element as ©.

What is the code for the following group of number-symbols?
84291

Ans
- ✗ A. UTBA©
- ✗ B. UTBAH
- ✗ C. U©BAH
- ✓ D. UT©AH

Q.44 **Seven friends, E, F, G, H, W, X and Y, are sitting in a straight line facing north. Only one person sits to the left of F. Only two people sit between E and F. Only two people sit between G and W. W sits to the immediate left of E. X sits to the immediate right of H. Who sits at the third position from the left end of the line?**

Ans
- ✔ A. Y
- ✘ B. W
- ✘ C. X
- ✘ D. E

Q.45 **What will come in place of the question mark (?) in the following equation if '+' and '–' are interchanged and '×' and '÷' are interchanged?**

105 – 117 × 9 + 14 ÷ 4 = ?

Ans
- ✘ A. 68
- ✔ B. 62
- ✘ C. 64
- ✘ D. 65

Q.46 **A, B, C, D and E scored different marks. C scored more than exactly three people. A scored less than D and D scored less than E. Only one person scored less than B. Who scored the highest?**

Ans
- ✘ A. A
- ✘ B. C
- ✘ C. B
- ✔ D. E

Q.47 **Each vowel in the word GIMLETS 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. How many letters will appear exactly twice in the new group of letters thus formed?**

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

Q.48 **MKIM is related to QOMQ in a certain way based on the English alphabetical order. In the same way, JHFJ is related to NLJN. To which of the given options is DBZD related, following the same logic?**

Ans
- ✘ A. HGCJ
- ✔ B. HFDH
- ✘ C. HFCH
- ✘ D. HECH

Q.49 **What happens to the pH of the pure water when hydrochloric acid is added to it?**

Ans
- ✘ A. pH of the solution becomes neutral
- ✘ B. pH of the solution stays unchanged
- ✔ C. pH of the solution decreases
- ✘ D. pH of the solution increases

Q.50 **A student has four strips: magnesium, copper, aluminum, and zinc. If each is placed in a solution of iron sulfate, which will show no reaction based on the reactivity series?**

Ans
- ✔ A. Copper
- ✘ B. Aluminum
- ✘ C. Zinc
- ✘ D. Magnesium

Q.51 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	7	&	8	$	#	@	*	4	?	%
Code	I		H	A	K	M	J	S	W	Y	F

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?
7 & 8 $ #

Ans
- ✗ A. IFAKM
- ✓ B. IHAKM
- ✗ C. IHYKM
- ✗ D. IHAKW

Q.52 **What should come in place of the '?' in the given series?**

34,45,67,100,144, ?

Ans
- ✗ A. 198
- ✗ B. 197
- ✗ C. 196
- ✓ D. 199

Q.53 **Each of B, O, U, G, H, T and S has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. T has exam on Friday. Only two people have exam between U and T. Only four people have exam between H and U. G has exam immediately after B. S doesn't have exam on Monday. How many people have exam between O and S?**

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

Q.54 **Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?**
CLX 13 GOS 9 KRN 5 ? SXD -3

Ans
- ✗ A. OVI 2
- ✗ B. NWI 2
- ✓ C. OUI 1
- ✗ D. OUJ 1

Q.55 **Six people H, I, J, K, U and V live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it, number 2 and so on till the topmost floor is numbered 6. Only U lives below I. Only three people live between K and I. V lives on an even numbered floor. J lives on an odd numbered floor but not on floor number 5. How many people live below H?**

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

Q.56 Nikhil starts from Point A and drives 10 km towards south. He then takes a left turn, drives 14 km, turns left and drives 13 km. He then takes a left turn and drives 17 km. He takes a final left 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
- ✗ A. 6 km to the east
- ✗ B. 7 km to the west
- ✓ C. 3 km to the east
- ✗ D. 6 km to the west

Q.57 Which of the following numbers is divisible by both 35 and 9?

Ans
- ✓ A. 30870
- ✗ B. 32150
- ✗ C. 31578
- ✗ D. 30440

Q.58 Refer to the following letter series and answer the question that follows. Counting to be done from left to right only.

(Left) A H D E Z C K W L R N G D O E Y U L B J E A R Z N U H S O (Right)

How many such vowels are there, each of which is immediately preceded by a consonant and also immediately followed by a consonant?

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

Q.59 This question is based on the five, three-digit numbers given below.
(Left) 147 158 126 139 197 (Right)
(Example- 697 – First digit = 6, second digit = 9 and third digit = 7)

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

Ans
- ✗ A. 5
- ✗ B. 6
- ✗ C. 8
- ✓ D. 9

Q.60 Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

RNI26 QMH37 PLG48 OKF59 ?

Ans
- ✗ A. NJE71
- ✗ B. NJF70
- ✗ C. NJF71
- ✓ D. NJE70

Q.61 A student has 2 tests of 80 marks each and 3 assignments of 60 marks each. What is the weighted arithmetic mean of these marks?

Ans
- ✗ A. 64
- ✗ B. 72
- ✗ C. 70
- ✓ D. 68

Q.62 The marked price of a chair is ₹2000. If two successive discounts of 15% and 10% are given, what is the final price paid by the customer?

Ans
- ✗ A. ₹1600
- ✗ B. ₹1550
- ✗ C. ₹1500
- ✓ D. ₹1530

Q.63 Yashraj 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 93 years, then Yashraj's present age (in years) is:

Ans
- ✗ A. 85
- ✗ B. 79
- ✗ C. 73
- ✓ D. 63

Q.64 If $7 \sin y + \cos y = \sqrt{4} \sin y$, find the value of $\tan y$.

Ans
- ✗ A. $-\frac{1}{1}$
- ✗ B. $-\frac{1}{4}$
- ✓ C. $-\frac{1}{5}$
- ✗ D. $-\frac{1}{13}$

Q.65 Which of the following best explains why two magnetic field lines cannot intersect at any point in the space surrounding a magnet?

Ans
- ✗ A. Because it weakens the magnetic field
- ✗ B. Because it creates a new magnetic pole
- ✗ C. Because it means field lines are open curves
- ✓ D. Because a compass needle would be required to point in two directions at the same time

Q.66 Vasu starts from Point A and drives 47 km towards the East. He then takes a left turn, drives 41 km, then turns left and drives 64 km. He then takes a left turn and drives 65 km. He takes a final left turn, drives 17 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. 24 km to the North
- ✗ B. 25 km to the North
- ✗ C. 26 km to the South
- ✗ D. 27 km to the South

Q.67 30 is related to 298 following a certain logic. Following the same logic, 7 is related to 68. To which of the following is 14 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. 140
- ✓ B. 138
- ✗ C. 136
- ✗ D. 139

Q.68 Simplify: $75 - \{18 \div 3 \times (4 + 2) - 5 \times 3\} + 28 \div 7$

Ans
- ✗ A. 54
- ✗ B. 56
- ✗ C. 52
- ✓ D. 58

Q.69 371 is related to 421 following a certain logic. Following the same logic, 428 is related to 478. To which of the given options is 116 related, following the same logic?
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting / multiplying 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. 126
- ✗ B. 186
- ✗ C. 146
- ✓ D. 166

Q.70 What best describes the role of the principal axis in the formation of images by a concave mirror?

Ans
- ✗ A. It is the tangent to the mirror at the center of curvature
- ✗ B. It passes through the focus and pole but not the center of curvature
- ✗ C. It is a line perpendicular to the mirror surface at the pole only
- ✓ D. It acts as a reference line passing through the center of curvature and the pole

Q.71 A man invests ₹56,500 at a simple interest rate of 10% per annum for 2 years. Find the amount (in ₹) he will receive at the end of 2 years.

Ans
- ✓ A. 67,800
- ✗ B. 67,080
- ✗ C. 64,800
- ✗ D. 64,080

Q.72 A trader purchases an item for ₹200, sells it to a retailer for ₹220, who then sells it to a customer for ₹242. What is the total profit percentage from the original purchase price to the final selling price?

Ans
- ✗ A. 22%
- ✗ B. 20%
- ✗ C. 10%
- ✓ D. 21%

Q.73 The volume of a cylinder having diameter 16 cm and height 21 cm is:

$$\pi = \frac{22}{7}$$

Ans
- ✓ A. 4224 cm^3
- ✗ B. 4189 cm^3
- ✗ C. 4311 cm^3
- ✗ D. 4182 cm^3

Q.74 A tap fills a tank in 6 hours. Another tap empties the full tank in 7 hours. How long (in hours) will it take to fill half of the tank, if the tank is empty initially and both the taps are opened together?

Ans
- ✗ A. 28
- ✗ B. 14
- ✓ C. 21
- ✗ D. 42

Q.75 A car covers a distance of 840 km in 5 hours. The speed of a train is double the speed of the car. One-third the speed of the train is equal to the speed of a bike. How much distance will the bike cover in 3 hours?

Ans
- ✗ A. 339 km
- ✗ B. 329 km
- ✓ C. 336 km
- ✗ D. 331 km

"