



रेल भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सी ई एन - ०१/२०२५ - CEN - 01/2025
सहायक लोको पायलट की भर्ती/ Recruitment of Assistant Loco Pilot



Test Date	16/02/2026
Test Time	4:00 PM - 5:00 PM
Subject	RRB ALP 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 $6\sin y + \cos y = \sqrt{9}\sin y$, find the value of $\tan y$.

- Ans
- A. $-\frac{1}{3}$
- B. $-\frac{1}{9}$
- C. $\frac{1}{3}$
- D. $-\frac{1}{10}$

Q.2 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 select the most appropriate answer.

Question:

Among 5 poles, I, L, O, M and D each having a different height, which pole is the tallest?

Statements:

(I) O is shorter than D.

(II) M is taller than D.

- Ans
- A. Data in both statements I and II together are not sufficient to answer the question.
- 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 statement II alone is sufficient to answer the question while data in statement I is not.
- D. Data in statement I alone is sufficient to answer the question while data in statement II is not.

Q.3 D, E, F, G, I, J and K are sitting around a circular table, facing the centre of the table. G is the immediate neighbour of both D and J. J sits third to the left of I. K sits to the immediate left of I. F is not an immediate neighbour of J. Who sits third to the left of E?

- Ans
- A. I
- B. D
- C. F
- D. K

Q.4 If an object is placed between infinity and the pole (P) in front of a convex mirror, what type of image will be formed?

- Ans
- A. Real, inverted, and enlarged
 - B. Real, inverted, and diminished
 - C. Virtual, erect, and diminished (smaller in size)
 - D. Real, erect, and same size as the object

Q.5 Read the given statement(s) and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statement(s).

Statements:

All kings are bombs.
No parrots are kings.

Conclusions:

(I) Some bombs are not parrots.
(II) Some bombs are kings.

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

Q.6 Simplify: $\frac{\sin A \cdot \tan A}{1 - \cos A} - \frac{\cos A \cdot \cot A}{1 - \sin A}$

- Ans
- A. $\sec A - \operatorname{cosec} A$
 - B. $\operatorname{cosec} A - \sec A$
 - C. $\cos A - \sin A$
 - D. $\sin A - \cos A$

Q.7 The double-layered covering of the nucleus is called as _____

- Ans
- A. Cell wall
 - B. Nuclear membrane
 - C. Chromatin wall
 - D. Plasma membrane

Q.8 An ottoman with side 50 cm is a magnified version of a 6-sided white cubical die with black circular spots from 1 to 6 engraved on its faces. If each engraved spot is a circle of diameter 10 cm, what is the total surface area (in cm^2 , rounded off to the nearest integer) of the cubical die that is not engraved?

- Ans
- A. 12422
 - B. 13351
 - C. 12354
 - D. 15330

Q.9 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)
(156,12,13)
(126,14,9)

- Ans
- A. (198,24,8)
 - B. (196,15,13)
 - C. (176,16,11)
 - D. (240,45,5)

Q.10 A student's marks were incorrectly entered as 23 instead of 59. Due to this, the average marks of the class got decreased by $\frac{9}{7}$. What is the number of students in the class?

- Ans**
- A. 35
 - B. 28
 - C. 36
 - D. 30

Q.11 M is the mother of O. O is the sister of J. T is the daughter of K. T is the sister of J. J is the father of B. B is the wife of F. How is M related to K?

- Ans**
- A. Brother
 - B. Husband
 - C. Sister
 - D. Wife

Q.12 AL8 is related to EQ40 in a certain way. In the same way, MF13 is related to QK65. To which of the given options is UO5 related, following the same logic?

- Ans**
- A. XT20
 - B. MT25
 - C. ZT20
 - D. YT25

Q.13 What is the mode of the following data?

89, 89, 64, 86, 64, 79, 81, 85, 82, 81, 75, 85, 82, 84, 61, 82, 81, 64, 74, 71, 61, 68, 77, 64, 79

- Ans**
- A. 82
 - B. 64
 - C. 89
 - D. 81

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**
- A. PUZ
 - B. CHN
 - C. LQW
 - D. INT

Q.15 What will come in place of the question mark (?) in the following equation, if '+' and '÷' are interchanged and '-' and 'x' are interchanged?

$$368 + 46 \times 7 - 23 \div 183 = ?$$

- Ans**
- A. 30
 - B. 39
 - C. 33
 - D. 38

Q.16 Refer to the following letter series and answer the question that follows. Counting to be done from left to right only.
(Left) W U G E K L T Q J W U J V E S C V K J T C (Right)
How many such vowels are there, each of which is immediately preceded by a vowel and also immediately followed by a consonant?

- Ans A. None
 B. More than three
 C. One
 D. Two

Q.17 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. DUP
 B. JAV
 C. XPJ
 D. QHC

Q.18 Which of the following substance groups represents the non-biodegradable substances?

- Ans A. Plastic bubble pack, regular milk packets, medicine plastic bottles
 B. Spoilt food, vegetable peels, used tea leaves
 C. Grasses, spoilt food, vegetable peels
 D. Vegetable peels, flowers, paper

Q.19 Two positive integers have HCF = 12 and LCM = 924. If one of the numbers is 84, what is the other number?

- Ans A. 72
 B. 96
 C. 180
 D. 132

Q.20 18 is related to 54 following certain logic. Following the same logic, 33 is related to 99. To which of the following is 27 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. 79
 B. 85
 C. 81
 D. 84

Q.21 Each of G, J, M, O, R, S, and T has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week.
Only three people have exams between O and S. S has an exam on the last day of the week. Only one person has an exam between G and J. T has an exam immediately the day before M. R doesn't have an exam on Friday. J has an exam before G.
Who has an exam on Tuesday?

- Ans A. O
 B. T
 C. G
 D. J

Q.22 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 mugs are goats.
All goats are squares.

Conclusions:

(I) Some mugs are squares.

(II) Some squares are goats.

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

Q.23 Seven boxes, T, U, V, W, X, Y and Z are kept one over the other but not necessarily in the same order. Only one box is kept above X. T is kept immediately above Y. U is placed immediately below Y. V is kept fifth from the bottom. W is kept on one of the positions below Z. What box is kept at the top?

- Ans A. V
 B. U
 C. T
 D. Z

Q.24 Tap A can empty a tank in 30 minutes. Tap B can empty it in 15 minutes. If both the taps operate simultaneously, how much time is needed to empty the tank?

- Ans A. 10 minutes
 B. 30 minutes
 C. 20 minutes
 D. 40 minutes

Q.25 YEVA is related to KQHM in a certain way based on the English alphabetical order. In the same way, UARW is related to GMDI. To which of the given options is EKBG related, following the same logic?

- Ans A. QWCG
 B. QNJU
 C. QWNS
 D. AQWE

Q.26 A shopkeeper offers two successive discounts of 20% and 30% on a product marked at ₹10,000. He still makes a profit of 12% on the cost price of the product. What is the cost price and selling price of the product?

- Ans A. Cost price = ₹5,000, Selling price = ₹5,500
 B. Cost price = ₹4,000, Selling price = ₹5,000
 C. Cost price = ₹5,000, Selling price = ₹6,000
 D. Cost price = ₹5,000, Selling price = ₹5,600

Q.27 Seven boxes, T, W, Z, K, R, U and H are kept one over the other but not necessarily in the same order. Only two boxes are kept below W. T is kept immediately below K. Only one box is kept between H and W. H is kept immediately below T. U is kept immediately above Z. Which box is placed immediately above W?

- Ans A. R
 B. Z
 C. K
 D. T

Q.28 Which of the following equations correctly relates the resistance (R) of a conductor to its length (l), area of cross-section (A), and resistivity (ρ)?

- Ans
- A. $R=l/\rho A$
 - B. $R=\rho l/A$
 - C. $R=A/\rho l$
 - D. $R=\rho A/l$

Q.29 Which of the following ratios is the largest?

- Ans
- A. 25 : 43
 - B. 18 : 31
 - C. 21 : 36
 - D. 17 : 30

Q.30 QT 3 is related to SS -16 in a certain way. In the same way, HK 7 is related to JJ -12. To which of the given options is NO 11 related, following the same logic?

- Ans
- A. OM -8
 - B. PO -6
 - C. OO -6
 - D. PN -8

Q.31 Pankaj, Meera, and Ashok invest ₹62,000, ₹70,000, and ₹83,000, respectively, to start a business. At the end of the year, the total profit earned is ₹75,500. 14% of the total profit earned is given to charity and the rest is divided among them in the ratio of their profit. What will be the share of Ashok (in ₹)?

- Ans
- A. 25,206
 - B. 24,954
 - C. 25,066
 - D. 25,183

Q.32 Each of A, C, I, M, O, Q and W has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. M has an exam on Thursday. Exactly 4 people have their exams between O and A, neither of whom has an exam on Sunday. Q has an exam immediately before C. I does not have an exam on Friday. O does not have an exam after C. How many people have exams after A?

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

Q.33 What should come in place of the question mark (?) in the given series based on the English alphabetical order?
ZWM URK PMI KHG ?

- Ans
- A. FCL
 - B. FCE
 - C. KCE
 - D. FDF

Q.34 A man goes from point A to point B at a speed of 13 km/h and returns from B to A at a speed of 10 km/h using the same route. The average speed (in km/h) for the whole journey is:

- Ans
- A. $11\frac{7}{23}$
 - B. $11\frac{16}{23}$
 - C. $10\frac{22}{23}$
 - D. $12\frac{1}{23}$

Q.35 In a distribution, if the median is 42 and the mode is 36, then find the value of the mean.

- Ans
- A. 42
 - B. 45
 - C. 36
 - D. 40

Q.36 If 2 is subtracted from each even digit and 1 is added to each odd digit in the number 6785234, then how many digits will appear more than once in the new number?

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

Q.37 Among five people named V, W, X, Y and Z, each have a certain age. Y is four times the age of X. V is two times the age of X. Y is five times the age of W. The age of W is 12. If Z is thrice the age of V, what is the age of Z?

- Ans
- A. 90
 - B. 75
 - C. 89
 - D. 85

Q.38 Refer to the following letter series and answer the question that follows. Counting to be done from left to right only.

(Left) K N C G I N F Z X I J X M N W T K K S V V (Right)

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

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

Q.39 When the one-third of a number is increased by 17, the result is 72. Find the sum of the digits of the original number.

- Ans
- A. 15
 - B. 13
 - C. 11
 - D. 12

Q.40 A, B, C, D, E, F and G are sitting around a circular table, facing the centre. F sits third to the left of A. C sits second to the left of D. Only A sits between E and C. B is not an immediate neighbour of F. How many people sit between D and E when counted from the right of E?

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

Q.41 In a certain code language,

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

Based on the above, how is Q related to P if 'Q × M + V - J ÷ P'?

- Ans**
- A. Sister's husband
 - B. Father
 - C. Brother
 - D. Sister's son

Q.42 Which breed of cattle is primarily used for dairy purposes in India?

- Ans**
- A. Sahiwal
 - B. Ongole
 - C. Gir
 - D. Kankrej

Q.43 The salary of an employee is first increased by 20% and then again increased by 10%. What is the total percentage increase in the salary?

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

Q.44 The ability of the eye lens to adjust its focal length to see objects clearly at different distances is called:

- Ans**
- A. Power of accommodation
 - B. Power of convergence
 - C. Range of vision
 - D. Persistence of vision

Q.45 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 the five poles—I, N, C, H, and L—each having a different height, which pole is the shortest?

(I) L is shorter than N. H is shorter than I.
(II) H is taller than L.

- Ans**
- A. Data in statement I alone is sufficient to answer the question while data in statement II 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. Data in statement II alone is sufficient to answer the question while data in statement I is not
 - D. Both statements I and II together are NOT sufficient to answer the question

Q.46 Where was the first Lokpal Day commemoration held in 2025?

- Ans
- A. Supreme Court Auditorium, New Delhi
 - B. Zorawar Auditorium, Manekshaw Centre, Delhi Cantt
 - C. Parliament House, New Delhi
 - D. Vigyan Bhawan, New Delhi

Q.47 What sum (in ₹) will earn an interest of ₹480 in 2 years at 6% simple interest per year?

- Ans
- A. 4150
 - B. 3800
 - C. 4000
 - D. 4200

Q.48 Evaluate $6.84\bar{1} - 2.69\bar{1}$.

- Ans
- A. $\frac{4035}{900}$
 - B. $\frac{3635}{909}$
 - C. $\frac{3735}{900}$
 - D. $\frac{3835}{1100}$

Q.49 Which of the following ratios is the least?

- Ans
- A. 7 : 13
 - B. 4 : 7
 - C. 5 : 9
 - D. 8 : 15

Q.50 During a sale, 48% of the goods are sold at a 31% profit, 25% of the remaining goods are sold at a 16% profit, and the rest are sold at a loss of 32%. If the overall profit is x%, what is the value of x?

- Ans
- A. 8
 - B. 7
 - C. 7.5
 - D. 4.48

Q.51 Gopal distributed ₹25200 between his two grandsons 13-year-old Akshay and 14-year-old Atul such that they get equal money when they turn 23 years old. Till then the money is in a bank getting compound interest at 10% per annum, compounded annually. How much (in ₹) Gopal deposited in the name of Atul?

- Ans
- A. 12000
 - B. 11750
 - C. 13550
 - D. 13200

Q.52 Raj had a cake in the shape of a sphere of radius 8 cm. He then dipped it in chocolate and kept it in the freezer. After some time, he observed that the chocolate formed a layer of thickness 2 cm over the cake. What is the percentage increase of the surface area of the cake after it is dipped in chocolate?

- Ans A. 52.25%
 B. 56.25%
 C. 58.25%
 D. 62.25%

Q.53 Nikhil sold his cycle to Ravi at a loss of 24%. Ravi spent ₹486 on its repairs and sold the cycle to Vikas for ₹2,875, thereby making a profit of 15%. Find the cost price of the cycle for Nikhil.

- Ans A. ₹2,460
 B. ₹2,540
 C. ₹2,650
 D. ₹2,710

Q.54 In a code language, 'AGENT' is coded as GAHTN and 'ADOPT' is coded as DARTP. How will 'DRINK' be coded in the same language?

- Ans A. SEKNM
 B. SDLKM
 C. REKNL
 D. RDLKN

Q.55 Refer to the following letter series and answer the question that follows. Counting to be done from left to right only.
(Left) O Q K K M I W K M F A F Y U T U B H T X S (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. None
 B. Three
 C. One
 D. Two

Q.56 The price of an article was ₹1600. It increased by 15% in the first year and by 20% in the second year. What is the price (in ₹) of the article after two years?

- Ans A. 1920
 B. 1840
 C. 2106
 D. 2208

Q.57 Two trains, A and B, of lengths 180 m and 220 m, respectively, are running on parallel tracks in opposite directions. They cross each other in 12 seconds. If the same two trains are moving in the same direction, they take 60 seconds for the faster train to completely cross the slower one. Find the speed (in km/h) of the faster train.

- Ans A. 72
 B. 80
 C. 64
 D. 48

Q.58 What should come in place of ? in the given series?

98 110 123 137 152 ?

- Ans
- A. 168
 - B. 169
 - C. 167
 - D. 170

Q.59 Which of the following articles in the Indian Constitution states that there shall be a Council of Ministers with the Prime Minister at the head to aid and advise the President who shall, in the exercise of his functions, act in accordance with such advice?

- Ans
- A. Article 84
 - B. Article 74
 - C. Article 70
 - D. Article 50

Q.60 A tank has three pipes A, B and C. A and B are inlet pipes while C is an outlet pipe. Pipe A can fill the tank in 15 minutes. Pipe B can fill it in 20 minutes. Pipe C can empty it in 30 minutes. The pipes are opened in the following cycle.

Minute 1: Only A

Minute 2: Only B

Minute 3: Only C

The cycle repeats till the tank is full. How much time would it take to completely fill the tank?

- Ans
- A. $27\frac{2}{3}$ minutes
 - B. 32 minutes
 - C. 36 minutes
 - D. $34\frac{1}{3}$ minutes

Q.61 When a positively charged alpha particle is passed through a thin gold foil, most of the particles pass straight through without deflection. Based on Thomson's model of the atom, which of the following best explains this observation?

- Ans
- A. The positive charge and mass are concentrated at the centre of the atom.
 - B. The atom contains a small, dense nucleus that repels alpha particles.
 - C. The positive charge is uniformly distributed throughout the atom, and electrons are embedded in it.
 - D. Electrons revolve around the nucleus in fixed orbits.

Q.62 Refer to the following letter, symbol series and answer the question that follows.

Counting to be done from left to right only.

(Left) N % Q E A L & M @ B & F > £ N H * # < L % P (Right)

How many such symbols are there, each of which are immediately preceded by a letter and immediately followed by a symbol?

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

Q.63 An electronics store offers two successive discounts on a laptop priced at ₹51,000. The first discount is 10%, and the second discount is 5%. What is the final price after both discounts are applied?

- Ans
- A. ₹43,605
 - B. ₹46,305
 - C. ₹44,305
 - D. ₹43,506

Q.64 What should come in place of the question mark (?) in the given series?
17 28 39 50 61 72 ?

- Ans
- A. 81
 - B. 87
 - C. 85
 - D. 83

Q.65 This question is based on the five, three-digit numbers given below.
(Left) 627 458 347 491 567 (Right)
(Example- 697 – First digit = 6, second digit = 9 and third digit = 7)
What will be the resultant if the second digit of the second highest number is added to the third digit of the lowest number?

- Ans
- A. 11
 - B. 13
 - C. 12
 - D. 14

Q.66 Refer to the following number, symbol series and answer the question that follows.
Counting to be done from left to right only. All numbers are single-digit numbers.
(Left) ? + > * 1 + 7 & ^ 1 ^ 7 2 8 ? & > # ? 4 @ (Right)
How many such numbers are there, each of which is immediately preceded by another number and also immediately followed by a symbol?

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

Q.67 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. OSV
 - B. GKN
 - C. LOS
 - D. TXA

Q.68 What happens at the boiling point of a liquid?

- Ans
- A. Particles remain fixed and do not move at all.
 - B. Particles expand slightly and remain in liquid form.
 - C. Particles lose energy and move closer together.
 - D. Particles gain enough energy to change into vapour.

Q.69 Soham starts from Point A and drives 59 km towards west. He then takes a left turn, drives 67 km, turns left and drives 67 km. He then takes a left turn and drives 78 km. He takes a final left turn, drives 8 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. 10 km to the south
 - B. 13 km to the south
 - C. 11 km to the south
 - D. 12 km to the north

Q.70 Refer to the following series and answer the question (All numbers are single digit numbers only. Counting to be done from left to right.)
(Left) 3 7 2 6 2 7 3 8 7 3 7 6 4 2 4 5 4 9 5 7 7 2 4 (Right)
How many such even digits are there each of which is immediately preceded by an odd digit and also immediately followed by an even digit?

- Ans** A. Three
 B. None
 C. Two
 D. One

Q.71 In a certain code language, 'HATS' is coded as '2743' and 'AHUS' is coded as '7483'.
What is the code for 'U' in the given code language?

- Ans** A. 4
 B. 7
 C. 8
 D. 3

Q.72 Namit starts from Point A and drives 26 km towards the east. He then takes a left turn, drives 25 km, turns left and drives 33 km. He then takes a left turn and drives 35 km. He takes a final left turn, drives 7 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. 11 km to the North
 B. 10 km to the North
 C. 12 km to the South
 D. 13 km to the South

Q.73 Select the set in which the numbers are related in the same way as are the numbers of 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.)

(29, 116, 348)
(22, 88, 264)

- Ans** A. (26, 104, 332)
 B. (17, 68, 204)
 C. (15, 60, 120)
 D. (21, 94, 252)

Q.74 If 'A' stands for '+', 'B' stands for 'x', 'C' stands for '+' and 'D' stands for '-', then what will come in place of the question mark (?) in the following equation?

75 A 3 D 14 C 9 B 4 = ?

- Ans** A. 47
 B. 59
 C. 63
 D. 31

Q.75 What should come in place of the question mark (?) in the given series based on the English alphabetical order?
HBU NHA TNG ZTM ?

- Ans** A. FXS
 B. FDR
 C. FSE
 D. FZS