RRB ALP CBT-I 2024 Official Paper (Held On: 28 Nov, 2024 Shift 3) (Previous Year Paper)

RRB Assistant Loco Pilot (ALP) • 2024 • 75 questions • 60 minutes • Answer key

Take this paper as a timed mock test

Practise under exam conditions, then review your answers after you submit.

yourmocktest.com/pyq/rrb-alp/rrb-alp-cbt-i-2024-official-paper-held-on-28-nov-2024-shift-3-prev…

Scan the QR code or click the link to open it.

STAGE I (CBT I)

Q1. Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts and decide which conclusion(s) logically follow(s) from the given statements.

Statements:

All chairs are tables.

No table is a bed.

Conclusions:

(I) Some beds are chairs.

(II) No bed is a table.

(a) Only conclusion (II) follows.
(b) Only conclusion (I) follows.
(c) Neither conclusion (I) nor (II) follows.
(d) Both conclusions (I) and (II) follow.

Q2. Which tissue is responsible for movement in our body?

(a) Nervous tissue
(b) Muscular tissue
(c) Epithelial tissue
(d) Connective tissue

Q3. The 90^(th) edition of the Ranji Trophy started in October 2024. Which of the following games is the Ranji Trophy related to?

(a) Hockey
(b) Basketball
(c) Badminton
(d) Cricket

Q4. Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

GJN, ILP, KNR, MPT, ?

(a) ORV
(b) OVR
(c) RVO
(d) ROV

Q5. The magnification produced by a spherical mirror is +0.75. The image is:

(a) Virtual, erect and diminished
(b) Virtual, erect and enlarged
(c) Real, inverted and diminished

(d) Real, inverted and enlarged

Q6. If each vowel in the word PAINTED is changed to the letter following it in the English alphabetical order and each consonant is changed to the letter preceding it in the English alphabetical order, then which letter will be in the third position from the left in the new group of letters thus formed?

(a) F
(b) J
(c) B
(d) M

Q7. In a certain code language,

'A + B' means 'A is the mother of B',

'A - B' means 'A is the brother of B',

'A x B' means 'A is the wife of B', and

'A ÷ B' means 'A is the father of B'.

How is M related to T if 'M ÷ N x P - S + T'?

(a) Mother's brother's wife's brother
(b) Mother's brother's wife's father
(c) Mother's brother
(d) Mother's father

Q8. Select the pair which follows the same pattern as that followed by the two sets of pairs given below. Both pairs follow the same pattern.

GTC: KWE

WFK: AIM

(a) LPA: KMV
(b) DGB: GLI
(c) JQP: MVW
(d) OZG: SCI

Q9. A gardener increases the area of his rectangular garden by increasing its length by 40% and decreasing its breadth by 20%. The area of the new garden is what percentage more than the area of the old garden?

(a) 0%
(b) 12%
(c) 8%
(d) 20%

Q10. Consider a parallel combination of 2 resistors with resistances 4 Ω and 6 Ω. The equivalent resistance of the circuit is:

(a) 12Ω
(b) 10Ω
(c) 4.2Ω
(d) 2.4Ω

Q11. All liquids and gases are:

(a) fluids
(b) semiconductors
(c) solids
(d) insulators

Q12. What type of reaction takes place when a single reactant breaks down into simpler products?

(a) Decomposition
(b) Double displacement
(c) Displacement
(d) Combination

YourMockTest.com - Free Study Material

Q13. Identify the single cell organism.

(a) Amoeba
(b) Seaweed
(c) Leech
(d) Liver fluke

Q14. In a certain code language, 'MOUSE' is coded as '74651', 'SPOKE' is coded as '52418', and 'PROUD' is coded as '26394'. What is the code for 'K' in the given code language?

(a) 2
(b) 8
(c) 5
(d) 1

Q15. Which of the following is NOT a characteristic of particles of matter?

(a) Particles of matter are static.
(b) Particles of matter have space between them.
(c) Particles of matter are continuously moving.
(d) Particles of matter attract each other.

Q16. Which of the following represents the ratio by mass of hydrogen to oxygen atoms (H:O) in a water molecule?

(a) 1:4
(b) 3:8
(c) 1:8
(d) 1:2

Q17. In September 2024, which High Court of India struck down the amended Information Technology Rules 2023, which empowered the Centre to set up a fact check unit (FCU) to identify fake, false and misleading information about the government and its establishments on social media?

(a) Delhi High Court
(b) Patna High Court
(c) Bombay High Court
(d) Madras High Court

Q18. Which of the following numbers is divisible by both 7 and 11?

(a) 3014
(b) 2534
(c) 2684
(d) 1771

Q19. Town A is the north of Town B. Town C is to the east of Town B. Town D is to the west of Town C. Town A is to the north-east of Town D. Town M is to the north of Town C. What is the position of Town D with respect to Town M?

(a) South-west
(b) North-east
(c) East
(d) West

Q20. Two successive discounts of 10% and 5% are equivalent to a single discount of _____.

(a) 15.5%
(b) 14%
(c) 14.5%
(d) 15%

YourMockTest.com — Free Study Material

Q21. Study the following table and answer the given question.

The table shows the expenditure of a family over the given years.

Year	Expenditure in Rs.				
Food	Clothing	Education	Rent	Others	
2011	2000	1200	3300	2000	4000
2012	2500	1100	3200	2300	4100

What is the total expenditure (in Rs.) on food by the family for the year 2011 and 2012?

(a) 5,000
(b) 5,500
(c) 4,500
(d) 6,000

Q22. If a regular polygon has 65 diagonals, then the number of sides this polygon has is:

(a) 12
(b) 14
(c) 13
(d) 10

Q23. Find the volume of a sphere whose diameter is 84 m. [Use π = 22/7]

(a) 323,434 m^3
(b) 310,464 m^3
(c) 338,808 m^3
(d) 313,418 m^3

Q24. Under the Prime Minister's Internship Scheme launched in October 2024, candidates will receive a monthly stipend of what amount for the full 12-month internship period?

(a) Rs. 1,500
(b) Rs. 5,000
(c) Rs. 6,500
(d) Rs. 2,000

Q25. If Rs. 2,400 is to be distributed between A and B in the ratio of 7 : 5, then the share of B is:

(a) Rs. 1,300
(b) Rs. 1,600
(c) Rs. 1,000
(d) Rs. 1,900

Q26. DGEH is related to ILJM in a certain way based on the English alphabetical order. In the same way, GJHK is related to LOMP. To which of the following options is PSQT related, following the same logic?

(a) UXWY
(b) UXVY
(c) UVXZ
(d) VUWY

Q27. Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts and decide which conclusion(s) logically follow(s) from the given statements.

Statements:

No dogs are pigs.

All pigs are stones.

Conclusions:

YourMockTest.com — Free Study Material

(I) Some stones are pigs.

(II) No stones are dogs.

(a) Both conclusions (I) and (II) follow
(b) Only conclusion (I) follows
(c) Neither conclusion (I) nor (II) follows
(d) Only conclusion (II) follows

Q28. If a sum amounts to 2 1/4 times the sum after 2 years on a certain rate of compound interest, compounded annually, then the rate of interest per annum is:

(a) 30%
(b) 50%
(c) 25%
(d) 40%

Q29. In which Indian state was a 1,300-year-old stupa discovered by the Archaeological Survey of India (ASI) in February 2023?

(a) Odisha
(b) West Bengal
(c) Madhya Pradesh
(d) Bihar

Q30. The Union Cabinet approved the establishment of International Big Cat Alliance (IBCA) with headquarters in India with a one-time budgetary support of Rs. 150 crore for a period of _____.

(a) 3 years
(b) 10 years
(c) 5 years
(d) 7 years

Q31. A town had a population of 50,000 in 1988. In one year, by 1989, it increased by 25%. Next year, in 1990, it decreased by 30%. The next year, in 1991, there was an increase of 40%. What is the population at the end of 1991?

(a) 62,250
(b) 61,250
(c) 60,250
(d) 66,550

Q32. If we add 1 to the numerator and subtract 1 from the denominator of a given fraction, it becomes 1. It becomes 2/3 if 1 is added to the denominator of the given fraction while the numerator is left unchanged. The positive difference of numerator and denominator of the fraction is:

(a) 3
(b) 2
(c) 5
(d) 7

Q33. Which of the following actions is responsible for the survival of species over time?

(a) Conservation
(b) Variation
(c) Reproduction
(d) Struggle

Q34. Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 5 3 % 4 6 & 8 S 7 * Ω 9 # 1 2 & @ £ (Right)

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

YourMockTest.com — Free Study Material

(a) Zero
(b) One
(c) More then two
(d) Two

Q35. A class of 30 students appeared in a test. The average score of 12 students is 80, and that of the rest is 75. What is the average score of the class?

(a) 56
(b) 87
(c) 67
(d) 77

Q36. The sum of all prime numbers between 60 and 90 is:

(a) 610
(b) 523
(c) 373
(d) 460

Q37. A dishonest dealer professes to sell his goods at cost price, but uses a false weight and thus gains 25%. For 100 gm, he uses a weight of how many grams?

(a) 70gm
(b) 85gm
(c) 75gm
(d) 80gm

Q38. In a certain code language, ‘HAIR’ is coded as ‘9715’ and ‘AGED’ is coded as ‘8612’. What is the code for ‘A’ in the given code language?

(a) 1
(b) 2
(c) 8
(d) 7

Q39. If A means +, B means −, C means ×, D means ÷, then what will come in place of the question mark (?) in the following equation?

14 B 5 C 5 A 30 D 2 = ?

(a) 2
(b) 4
(c) 1
(d) 3

Q40. The value of $x^2 - 5$ at $x = -1$ is:

(a) -2
(b) -5
(c) -1
(d) -4

Q41. From a point on the ground, the angles of elevation of the top and the bottom of a flag that is mounted on an 18 m high pole, are respectively 60° and 30°. The height of the flag is :

(a) 52 m
(b) 36 m
(c) 60 m
(d) 48 m

YourMockTest.com — Free Study Material

Q42. Which of the following options should come in place of the question mark (?) in the given series?

4 5 9 18 34 ?

(a) 59
(b) 60
(c) 54
(d) 52

Q43. Magnetic field lines around a straight current carrying conductor look like:

(a) straight lines
(b) ellipses
(c) hyperbolas
(d) concentric circles

Q44. Regarding carbon, which of the following statements is true?

(a) Carbon is trivalent.
(b) Carbon is tetravalent.
(c) Carbon is bivalent.
(d) Carbon is monovalent.

Q45. Reena runs at a speed of 8 km/h. How long will she take to cover 200 m?

(a) 175 seconds
(b) 54 seconds
(c) 90 seconds
(d) 120 seconds

Q46. When white light falls on a glass prism, it splits into seven colours. The phenomena is known as:

(a) Diffraction
(b) Dispersion
(c) Deviation
(d) Refraction

Q47. In the following number pairs, the second number is obtained by applying certain mathematical operations to the first number. Which numbers should replace X and Y so that the pattern followed by the two numbers on the left side of :: is the same as that on the right side of ::?

(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.)

X : 198 :: 8 : Y

(a) X = 7, Y = 538
(b) X = 4, Y = 512
(c) X = 5, Y = 546
(d) X = 6, Y = 488

Q48. A group of people consists of men, women, and children. 40% of them are men, 35% are women and rest are children, and their average weights are 70 kg, 60 kg and 30 kg, respectively. The average weight of the group is:

(a) 45.5 kg
(b) 46.5 kg
(c) 55.5 kg
(d) 56.5 kg

Q49. Aarav can do a piece of work alone in 6 days and Babita can do it alone in 8 days. Aarav and Babita undertook to do it for Rs. 2,400. With the help of Chaitanya, they completed the work in 3 days. How much is to be paid to Babita?

(a) Rs. 1,200
(b) Rs. 900
(c) Rs. 800

YourMockTest.com — Free Study Material

(d) Rs. 1,400

Q50. What is the use of high-performance computing systems 'Arka' and 'Arunika'?

(a) Weather forecasting
(b) Detecting the location of drugs
(c) Cyber crime detection
(d) Monitoring unwanted elements on social media

Q51. Who among the following is the author of the book 'Neeraj Chopra: The Man Who Made History'?

(a) Shamya Dasgupta
(b) Norris Pritam
(c) Navdeep Singh Gill
(d) Samir Chopra

Q52. In the following number pairs, the second number is obtained by applying certain mathematical operations to the first number. Which numbers should replace X and Y so that the pattern followed by the two numbers on the left side of :: is the same as that on the right side of ::?

(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.)

X : 140.4 :: 38 : Y

(a) X = 34, Y = 225.8
(b) X = 23, Y = 240.6
(c) X = 21, Y = 218.4
(d) X = 26, Y = 205.2

Q53. 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?

144 C 44 D 12 A 12 B 144 = ?

(a) 54
(b) 44
(c) 34
(d) 43

Q54. Seven boxes, P, Q, R, S, X, Y and Z, are kept one over the other but not necessarily in the same order. Only P is kept above X. Only two boxes are kept between X and S. Only R is kept below Z. Y is not kept immediately above S. Which box is kept fourth from the top?

(a) Q
(b) X
(c) Z
(d) R

Q55. 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 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.)

(a) YQ - CU
(b) AS - EW
(c) DV - HZ
(d) UM - ZN

Q56. The square of the length of a space diagonal of a closed cube is 2175 cm^2. What is the total surface area (in cm^2) of the cube?

(a) 4305
(b) 4350
(c) 4530

YourMockTest.com — Free Study Material

(d) 4272

Q57. Milk is a mixture of

(a) only protein
(b) only fat
(c) only water
(d) water, fat, protein, etc

Q58. Where does India rank on the Corruption Perceptions Index as of October 2024?

(a) 89
(b) 93
(c) 96
(d) 86

Q59. The concept of 'Prodyogiki' in the Yuva Sangam programme (2023) primarily focuses on which of the following?

(a) Economic development
(b) Technology
(c) Cultural preservation
(d) Political awareness

Q60. Select the correct sentence(s).

a. The release of energy in the aerobic process is a lot greater than in the anaerobic process.

b. ATP is broken down giving rise to a fixed amount of energy which can drive the endothermic reactions taking place in the cell.

c. The pyruvate is converted into lactic acid which is also a three-carbon molecule.

(a) Only a
(b) Only a and b
(c) a, b and c
(d) Only b and c

Q61. If each vowel in the word PLANTED is changed to the letter following it in the English alphabetical order and each consonant is changed to the letter preceding it in the English alphabetical order, then which letter will be in the third position from the left in the new group of letters thus formed?

(a) B
(b) F
(c) C
(d) K

Q62. Name the scientist who first discovered the cell in 1665.

(a) Matthias Jakob Schleiden
(b) Theodor Schwann
(c) Antonie van Leeuwenhoek
(d) Robert Hooke

Q63. In 2024, Air Marshal Tejinder Singh was appointed as the _____ at the Air Headquarters (Vayu Bhawan).

(a) Chief of Defence Staff
(b) Chief of the Air Staff
(c) Air Officer Commanding-in-Chief
(d) Deputy Chief of the Air Staff

Q64. 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 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.)

(a) AT - EX
(b) SL - WP

YourMockTest.com — Free Study Material

(c) KD - OF
(d) NG - RK

Q65. Seven people, A, B, C, D, E, F and G are sitting in a row, facing north. Only five people sit between A and F. G sits third to the left of F. E is the immediate neighbour of B and F. C is not the immediate neighbour of G.

How many people sit between C and E?

(a) One
(b) Two
(c) Three
(d) Four

Q66. What determines the chemical properties of a carbon compound?

(a) Functional group
(b) Molecular mass
(c) Number of Hydrogen atoms
(d) Length of the carbon chain

Q67. In this question, a statement is followed by two courses of action, numbered I and II. You must assume everything in the statement to be true and on the basis of the information given in the statement, decide which of the courses of action logically follow(s) for pursuing.

Statement:

Mr. X, a teacher of a high school, often beats his students.

Courses of Action:

I. Students should complain about this matter to the principal of the school.

II. Students should quit the school and take admission in another school.

(a) Both I and II follow.
(b) Only II follows.
(c) Neither I nor II follows.
(d) Only I follows.

Q68. What happens when pea plants showing two different characteristics (the tall/short trait and the round seed/wrinkled seed trait), rather than just one are bred with each other?

(a) The tall/short trait and the round seed/wrinkled seed trait are independently inherited.
(b) They are all tall and have round seeds in F2 generation.
(c) Some F1 progeny are tall plants with round seeds, and some are short plants with wrinkled seeds.
(d) The tall/short trait and the round seed/wrinkled seed trait are dependently inherited.

Q69. Which of the following statements is INCORRECT?

(a) Tooth decay starts when the pH of the mouth is lower than 5.5.
(b) When pH of rain water is less than 5.6, it is called acid rain.
(c) Living organisms can survive only in a narrow range of pH change.
(d) When pH of rain water is more than 5.6, it is called acid rain.

Q70. Six people, A, B, C, D, E and F are sitting in a straight line, facing north.

Only three people sit to the left of E. B sits second to the right of E. Only three people sit between A and C. C sits immediately left of D.

How many people sit between D and F?

(a) Two
(b) One
(c) None
(d) Three

YourMockTest.com — Free Study Material

Q71. The sum of five consecutive numbers is 260. The sum of the first and the last numbers is:

(a) 96
(b) 126
(c) 116
(d) 104

Q72. The value of √0.0016 × cbrt8000000 is:

(a) 8
(b) 16
(c) 0.8
(d) 1.6

Q73. Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

BFW, DIS, FLO, HOK, ?

(a) JSG
(b) KQE
(c) KRF
(d) JRG

Q74. When a motorcar makes a sharp turn at a high speed, we tend to get thrown to one side. This example is based on which law of motion?

(a) Conservation of momentum
(b) Second law of motion
(c) Third law of motion
(d) First law of motion

Q75. When the force and the displacement are in the same direction, then work done will be:

(a) zero
(b) positive
(c) either positive or negative
(d) negative

ANSWER KEY

1	a	2	a	3	a	4	a	5	a	6	a	7	a	8	a	9	a	10	a
11	a	12	a	13	a	14	a	15	a	16	a	17	a	18	a	19	a	20	a
21	a	22	a	23	a	24	a	25	a	26	a	27	a	28	a	29	a	30	a
31	a	32	a	33	a	34	a	35	a	36	a	37	a	38	a	39	a	40	a
41	a	42	a	43	a	44	a	45	a	46	a	47	a	48	a	49	a	50	a
51	a	52	a	53	a	54	a	55	a	56	a	57	a	58	a	59	a	60	a
61	a	62	a	63	a	64	a	65	a	66	a	67	a	68	a	69	a	70	a
71	a	72	a	73	a	74	a	75	a										

More previous year papers and mock tests: **www.yourmocktest.com/pyq**

YourMockTest.com — Free Study Material