रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 04/2026 - जेई, डीएमएस, सीएमए - CEN - 04/2026 - JE, DMS, CMA

Test Date	27/10/2026
Test Time	9:00 AM - 10:30 AM
Subject / Exam Group	RRB JE DMS CMA CBT I

*** 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 JE DMS CMA CBT I**

Q.1 **Refer to the following letter, symbol series and answer the question. Counting to be done from left to right only.**
(Left) U G W \ C = M O H $ @ D P & P ^ * A H E E (Right)
How many such letters are there each of which is immediately preceded by a symbol and also immediately followed by a symbol?

Ans
✗ 1. Three
✗ 2. One
✓ 3. Two
✗ 4. Four

Q.2 **In 1639, the English East India Company established its first territorial possession in India by leasing land from a representative of which empire, where Fort St. George was built?**

Ans
✗ 1. Maratha Empire
✓ 2. Vijayanagara Empire
✗ 3. Bijapur Sultanate
✗ 4. Mughal Empire

Q.3 **F is the father of R. R is the brother of U. B is the father of H. H is the son of U. How is H related to F?**

Ans
✗ 1. Daughter's husband
✗ 2. Father
✓ 3. Daughter's son
✗ 4. Brother

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 man out is not based on the number of consonants/vowels or their position in the letter cluster)

Ans
✗ 1. MD-HK
✗ 2. PG-KN
✗ 3. SJ-NQ
✓ 4. JA-EG

Q.5 **What should come in place of the question mark (?) in the given series?**

3 3 10 17 24 45 52 ?

Ans

✗ 1. 104

✓ 2. 101

✗ 3. 110

✗ 4. 111

Q.6 **Which combination of end products results from yeast fermentation?**

Ans

✗ 1. Lactic acid and water

✗ 2. Water and carbon dioxide

✓ 3. Ethanol and carbon dioxide

✗ 4. Ethanol and lactic acid

Q.7 **If a TV is bought for ₹32,000 and paid through 8 equal monthly installments at a compound interest rate of 12% per annum (compounded monthly), which of the following best represents the correct monthly installment (to the nearest rupee)?**

Ans

✗ 1. ₹3,900

✗ 2. ₹4,100

✗ 3. ₹4,028

✓ 4. ₹4,182

Q.8 **The product of two numbers is 468 and their L.C.M. is 78. Find their H.C.F.**

Ans

✗ 1. 12

✗ 2. 1

✗ 3. 9

✓ 4. 6

Q.9 **Which of these is equivalent to :** $\frac{2\sin x(1-\cos^2 x)}{\sec^3 x}$ **?**

Ans

✓ 1. $2\sin^3 x \cos^3 x$

✗ 2. $2\sin^3 x \cot x$

✗ 3. $2\sin^3 x \sec^3 x$

✗ 4. $2\operatorname{cosec}^3 x \cot^3 x$

Q.10 **Over ninety-seven percent of India's coal reserves occur in the valleys of Damodar, Sone, Mahanadi and which other river?**

Ans

✗ 1. Narmada

✗ 2. Kaveri

✗ 3. Krishna

✓ 4. Godavari

Q.11 **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: Five people – Abeer, Charita, Dhruv, Eshika and Faris – are seated in a row facing north. Who is seated at the extreme right end?

Statements:
(I) There are exactly two people between Abeer and Eshika.
(II) Charita sits immediately to the left of Faris, and Dhruv sits to the left of Charita.

Ans
✗ 1. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.
✓ 2. Data in both statements I and II together are NOT sufficient to answer the question.
✗ 3. Data in statement I alone is sufficient to answer the question while data in statement II is not.
✗ 4. Data in statement II alone is sufficient to answer the question while data in statement I is not.

Q.12 **14 is related to 115 following a certain logic. Following the same logic, 21 is related to 171. To which of the following is 26 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 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.)

Ans
✗ 1. 218
✓ 2. 211
✗ 3. 201
✗ 4. 206

Q.13 **Find the total surface area of a cone, in square metres correct to two decimal places, if its slant height (in cm) is the greatest prime number less than 239 and its height (in cm) is the smallest multiple of 13 greater than 200. (Take $\pi = \frac{22}{7}$)**

Ans
✗ 1. 12.92
✗ 2. 11.84
✓ 3. 11.15
✗ 4. 12.36

Q.14 **A student scored 84 in a subject with a weightage of 3, scored 72 in another subject with a weightage of 2 and 96 in another subject with a weightage of 4. Calculate the weighted arithmetic mean. (Round off your answer to two places of decimal).**

Ans
✗ 1. 88.54
✓ 2. 86.67
✗ 3. 87.28
✗ 4. 85.18

Q.15 **A restoration plan for an old quarry includes plants with true roots, stems, and leaves but no seeds. Which group is most appropriate to use?**

Ans
✓ 1. Pteridophyta
✗ 2. Gymnosperms
✗ 3. Bryophyta
✗ 4. Thallophyta

Q.16 **Which part of the human brain is mainly responsible for thinking, reasoning, and decision-making?**

Ans
✓ 1. Fore-brain
✗ 2. Spinal cord
✗ 3. Hind-brain
✗ 4. Mid-brain

Black Book

Q.17 **In a moderately skewed frequency distribution, the sum of the mean, median, and mode is 180. If the mean exceeds the median by 15, find the value of the mode. (Use the empirical relationship among the mean, median, and mode.)**

Ans

✗ 1. 30

✓ 2. 35

✗ 3. 40

✗ 4. 25

Q.18 **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 to be followed directly as given in the table.**

Number/Symbol 3 @ 7 # 2 % 8 & 1 $ 6 + 9 4

Code NK ARDMVP HTFWLQ

Conditions –
(i) If the second element is a symbol, code the fifth element as ©.
(ii) If the first element is a symbol, interchange the first and last codes.
(iii) If the third element is a symbol, replace the second code with the third code.

What will be the code for the following?
7 & 4 9 2

Ans

✗ 1. APDLD

✗ 2. APRLD

✗ 3. QPDLA

✓ 4. APQL©

Q.19 **OPTQ is related to PQUR in a certain way based on the English alphabetical order. In the same way, LMQN is related to MNRO. To which of the following is ABFC related, following the same logic?**

Ans

✗ 1. BDFH

✗ 2. BBFD

✗ 3. BCFD

✓ 4. BCGD

Q.20 **What is the relationship between the apparent position and the actual position of a star when observed?**

Ans

✗ 1. The apparent position of a star is the same as its actual position.

✓ 2. The apparent position of a star is slightly different from its actual position.

✗ 3. The apparent position of a star is at a 45° angle to its actual position.

✗ 4. The apparent position of a star is far from its actual position.

Q.21 **Two friends, X and Y, started a business with capital contributions of ₹132 and ₹230, respectively. After 4 months, X invested an additional ₹88, while Y withdrew ₹46. At the end of the year, the business earned a profit of ₹48,825. What is X's share of the profit?**

Ans

✗ 1. ₹23,970

✓ 2. ₹23,870

✗ 3. ₹23,780

✗ 4. ₹23,650

Q.22 **A bike covers a certain distance in 14 hours. It covers half of the distance at a speed of 80 km/h and the remaining half at a speed of 60 km/h. Find the total distance (in km) covered by the bike.**

Ans

✗ 1. 865

✓ 2. 960

✗ 3. 750

✗ 4. 950

black

Q.23 **A teacher asks students to analyze the image formation in a convex lens using the sign convention. Which combination of signs for object distance and image distance confirms the image is real and inverted?**

Ans

✗ 1. Object distance positive, image distance negative

✗ 2. Object distance negative, image distance negative

✗ 3. Object distance positive, image distance positive

✓ 4. Object distance negative, image distance positive

Q.24 **Which classical dance form is characterized by the 'Tribhanga' posture, involving three bends at the neck, torso, and knees?**

Ans

✗ 1. Bharatanatyam

✗ 2. Kathakali

✓ 3. Odissi

✗ 4. Kuchipudi

Q.25 **If an insect population is exposed to a new pesticide, what is the most likely long-term outcome?**

Ans

✗ 1. Genetic makeup of the population remains unchanged

✗ 2. All individual insects adapt instantly to the chemical

✓ 3. Resistant individuals survive and pass on their traits

✗ 4. The entire population dies out without any resistance

Q.26 **At simple interest, a certain sum of money amounts to ₹1,750 in 2 years and ₹2,250 in 3 years. Find the rate of interest per annum, rounded off to two decimal places.**

Ans

✗ 1. 50.25%

✓ 2. 66.67%

✗ 3. 25.25%

✗ 4. 33.33%

Q.27 **If an object is placed at twice the focal length (2F) from a convex lens, what is the magnitude of the magnification of the image formed?**

Ans

✗ 1. The magnification is zero

✗ 2. The magnification is greater than one

✗ 3. The magnification is less than one

✓ 4. The magnification is exactly one

Q.28 **Which habit should a mother avoid after childbirth to protect her health and her baby's health?**

Ans

✗ 1. Gentle walking

✗ 2. Eating fruits

✗ 3. Drinking more water

✓ 4. Consuming alcohol

Q.29 **DZWV is related to ZVSR in a certain way based on the English alphabetical order. In the same way, IEBA is related to EAXW. To which of the given options is OKHG related, following the same logic?**

Ans

✗ 1. KGCC

✓ 2. KGDC

✗ 3. KFCC

✗ 4. KHCE

blackbook

Q.30 If 'A' stands for '÷' , 'B' stands for 'x', 'C' stands for '+' and 'D' stands for '-' , what will come in place of the question mark '?' in the following equation?
392 A 14 C 15 B 12 D 78 =?

Ans
- ✗ 1. 115
- ✓ 2. 130
- ✗ 3. 113
- ✗ 4. 124

Q.31 What is the primary function of the cartilage discs found between the vertebrae in the human spine?

Ans
- ✓ 1. Act as cushions and allow flexibility
- ✗ 2. Support the body's weight directly
- ✗ 3. Form joints with the ribs
- ✗ 4. Produce blood cells for the body

Q.32 One of the quadrilateral's diagonals is 54 cm long, and the perpendiculars drawn from the other two vertices this diagonal are 38 and 18 cm, respectively. Determine the quadrilateral's area.

Ans
- ✗ 1. $1511\ cm^2$
- ✓ 2. $1512\ cm^2$
- ✗ 3. $1514\ cm^2$
- ✗ 4. $1510\ cm^2$

Q.33 According to Intergovernmental Panel on Climate Change (IPCC) assessment reports, which of the following gases is the largest single contributor to anthropogenic greenhouse gas emissions?

Ans
- ✓ 1. Carbon dioxide
- ✗ 2. Tropospheric ozone
- ✗ 3. Nitrous oxide
- ✗ 4. Methane

Q.34 Which part of the binomial name 'Homo sapiens' represents the genus?

Ans
- ✗ 1. Genus sapiens
- ✗ 2. Species Homo
- ✗ 3. sapiens
- ✓ 4. Homo

Q.35 Which is the only large river flowing through the Great Indian Desert region?

Ans
- ✗ 1. Mahi
- ✗ 2. Sabarmati
- ✗ 3. Chambal
- ✓ 4. Luni

Q.36 Raman's monthly income is ₹18,500. He saves 28% of his income. His income then increases by 13%, while his expenditure increases by 45%, then his savings will:

Ans
- ✗ 1. Increase by ₹3,586
- ✗ 2. Increase by ₹3,585
- ✗ 3. Decrease by ₹3,587
- ✓ 4. Decrease by ₹3,589

blackbook

Q.37 **Which of the following pairs are isotopes of each other?**

Ans

✗ 1. Atoms with different atomic numbers and different mass numbers

✗ 2. Atoms with different numbers of protons and the same number of neutrons

✓ 3. Atoms with the same atomic number but different mass numbers

✗ 4. Atoms with the same mass number but different atomic numbers

Q.38 **A product is sold at a profit of 127% on its cost price. If the cost price and selling price are interchanged, what percentage loss would be incurred on the transaction? Give your answer rounded off to two decimal places.**

Ans

✗ 1. 54.22%

✗ 2. 55.49%

✗ 3. 58.49%

✓ 4. 55.95%

Q.39 **Which combination of vision defects is commonly corrected using bifocal lenses?**

Ans

✓ 1. Presbyopia and myopia

✗ 2. Myopia and astigmatism

✗ 3. Hypermetropia and astigmatism

✗ 4. Myopia and hypermetropia

Q.40 **The volume of metal to make a hollow sphere is equal to the volume of the hollow part. Find the ratio of the outer radius to the inner radius of the sphere.**

Ans

✓ 1. $\sqrt[3]{2}:1$

✗ 2. $2\sqrt[3]{4}:3$

✗ 3. $2\sqrt[3]{2}:1$

✗ 4. $2\sqrt[3]{2}:3$

Q.41 **In a certain code language,**
'A + B' means 'A is the son of B',
'A – B' means 'A is the sister of B',
'A x B' means 'A is the wife of B' and
'A ÷ B' means ' A is the father of B'.
Based on the above, how is F related to Z if 'F x V + J ÷ L – Z'?

Ans

✓ 1. Brother's wife

✗ 2. Wife

✗ 3. Daughter

✗ 4. Brother's daughter

Q.42 **Which of the following options is equivalent to $729x^3 + 343y^3 + 1701x^2y + 1323xy^2$?**

Ans

✓ 1. $(9x + 7y)^3$

✗ 2. $(9x + 10y)^3$

✗ 3. $(11x + 7y)^3$

✗ 4. $(7x + 9y)^3$

Q.43 **What is the average of the numbers 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, and 22?**

Ans

✗ 1. 10

✓ 2. 12

✗ 3. 14

✗ 4. 11

Q.44 **The current population of a town is 15,500. It increases by 31% in the first year and by 25% in the second year, but decreases by 52% in the third year. What is the population of the town at the end of the third year?**

Ans
- ✗ 1. 12,181
- ✗ 2. 12,187
- ✓ 3. 12,183
- ✗ 4. 12,185

Q.45 **This question is based on the following words**
(left) LOB HIP MAT FLY (right)
How many letters are there between the third letter of the third word from the right and the first letter of the first word from the left as per English alphabetical order?

Ans
- ✗ 1. 4
- ✗ 2. 2
- ✗ 3. 6
- ✓ 4. 3

Q.46 **In a lever, the fulcrum is placed closer to the load than to the effort. What is the advantage of this arrangement?**

Ans
- ✗ 1. The effort required remains equal to the load.
- ✗ 2. Less effort is required, and the effort moves through a shorter distance.
- ✓ 3. Less effort is required, but the effort moves through a greater distance.
- ✗ 4. More effort is required, but the effort moves through a shorter distance.

Q.47 **When a beam of light passes through a mixture of water and fine chalk powder, the path of light becomes visible. Which concept explains this phenomenon?**

Ans
- ✓ 1. Tyndall Effect
- ✗ 2. Sedimentation
- ✗ 3. Filtration
- ✗ 4. Brownian Motion

Q.48 **Which of the following statements is INCORRECT regarding organic compounds?**

Ans
- ✓ 1. Friedrich Wöhler disproved the 'vital force theory' in 1838.
- ✗ 2. Friedrich Wöhler disproved the 'Vital force theory' by preparing urea from ammonium cyanate.
- ✗ 3. Two characteristic features, tetravalency and catenation, are seen in carbon.
- ✗ 4. In vital force theory, compounds were initially extracted from natural substances.

Q.49 **Navjot invested ₹65000 at 8% per annum for 1 year at compound interest, compounded half-yearly. The amount received by him is:**

Ans
- ✗ 1. ₹70321
- ✓ 2. ₹70304
- ✗ 3. ₹70421
- ✗ 4. ₹71290

Q.50 **Why should Plaster of Paris be stored in airtight containers?**

Ans
- ✗ 1. It evaporates over time.
- ✓ 2. It absorbs moisture and hardens.
- ✗ 3. It becomes acidic.
- ✗ 4. It reacts with oxygen.

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Q.51 **Which combination of metal and solution would NOT result in a displacement reaction based on the reactivity series?**

Ans

✗ 1. Zinc placed in lead nitrate solution

✗ 2. Magnesium placed in copper sulfate solution

✓ 3. Copper placed in zinc sulfate solution

✗ 4. Iron placed in copper sulfate solution

Q.52 **Six friends, D, E, F, W, X and Z, live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on, till the topmost floor, which is numbered 6.**
F lives immediately above Z. Only two people live between W and Z and W lives one of the floors below Z. W lives on an odd-numbered floor. X lives immediately below D.
Who lives on the topmost floor?

Ans

✗ 1. Z

✓ 2. E

✗ 3. F

✗ 4. D

Q.53 If $7a^2 + \frac{7}{a^2} = 28$, then what is the value of $3a^4 + \frac{3}{a^4} + 9$?

Ans

✗ 1. 35

✓ 2. 51

✗ 3. 42

✗ 4. 81

Q.54 **One pipe can fill the tank in 27 minutes while another pipe can empty the tank in 36 minutes. If both the pipes are operated together on an empty tank, how long (in minutes) will it take to fill one-third of the tank?**

Ans

✗ 1. 108

✗ 2. 72

✗ 3. 18

✓ 4. 36

Q.55 **Divide ₹5439 into three parts in such a way that half of the first part, one-fourth of the second part and one-eighth of the third part are equal. Find the third part (in ₹).**

Ans

✓ 1. 3108

✗ 2. 3008

✗ 3. 3408

✗ 4. 2808

Q.56 **If an object's velocity-time graph is a horizontal line above the time axis, what does this indicate about the object's motion?**

Ans

✗ 1. The object is moving with increasing velocity

✗ 2. The object is at rest throughout the motion

✓ 3. The object is moving at a constant positive velocity

✗ 4. The object is moving with decreasing velocity

Q.57 **In December 2025, which institution conducted India's first clinical trial of the "Supernova Stent" for the treatment of stroke?**

Ans

✓ 1. All India Institute of Medical Sciences, New Delhi

✗ 2. National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru

✗ 3. Christian Medical College (CMC), Vellore

✗ 4. Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh

blackbook

Q.58 How many metres of a 10 m – wide cloth will be required to make a con

Ans
- ✗ 1. 245
- ✓ 2. 231
- ✗ 3. 220
- ✗ 4. 188

Q.59 **A chemist is analyzing a sample of sodium carbonate (Na_2CO_3) to determine its formula unit mass. If the sample contains 2 moles of sodium, 1 mole of carbon, and 3 moles of oxygen in each formula unit, what is the calculated formula unit mass of sodium carbonate (Na_2CO_3)? (Atomic masses: Na = 23 u, C = 12 u, O = 16 u)**

Ans
- ✗ 1. 122 u
- ✗ 2. 84 u
- ✗ 3. 94 u
- ✓ 4. 106 u

Q.60 **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	6	@	1	#	8	%	3	&	5	$	2	+	9	4
Code	Q	M	H	T	A	P	K	F	U	R	D	W	L	B

Conditions –
(i) If the first element is a symbol and the third element is a number, interchange their codes.
(ii) If the middle element is a symbol, code the second element as ©.
(iii) If the last element is a symbol, replace the first code with the last code.

What will be the code for the following group?
3 8 % 2 9

Ans
- ✗ 1. KAPDL
- ✓ 2. K©PDL
- ✗ 3. KAPDB
- ✗ 4. A©PDL

Q.61 **Each vowel in the word CARPENTRY is changed to the letter immediately following it in the English alphabetical order, and each consonant is changed to the second letter preceding it in the English alphabetical order. Which of the following letters will appear exactly twice in the group of letters thus formed?**

Ans
- ✓ 1. P
- ✗ 2. N
- ✗ 3. R
- ✗ 4. F

Q.62 **During electrolytic refining of copper, what happens to the impurities present in the impure copper anode?**

Ans
- ✗ 1. They deposit on the cathode
- ✓ 2. They settle below the anode as anode mud
- ✗ 3. They dissolve in the electrolyte
- ✗ 4. They escape as gases

Q.63 **Where was the 20th Session of the UNESCO Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage (ICH) held in December 2025?**

Ans
- ✗ 1. Rashtrapati Bhavan Cultural Centre, New Delhi
- ✗ 2. Vigyan Bhavan, New Delhi
- ✓ 3. Red Fort Complex, New Delhi
- ✗ 4. India International Convention & Expo Centre, Dwarka

Black book

Q.64 **How is sodium hydroxide (NaOH) prepared on an industrial scale?**

Ans

✗ 1. By reacting sodium with water directly

✗ 2. By heating sodium chloride with oxygen

✓ 3. By the electrolysis of sodium chloride solution

✗ 4. By heating sodium carbonate with water

Q.65 **Which of the following muscular tissues is composed of long, cylindrical, unbranched, multinucleate cells and enables voluntary body movement?**

Ans

✓ 1. Striated muscle tissue

✗ 2. Areolar tissue

✗ 3. Smooth muscle tissue

✗ 4. Cardiac muscle tissue

Q.66 **Geologically, the Andaman and Nicobar Islands are considered a southward extension of which mountain range?**

Ans

✓ 1. Arakan Yoma range

✗ 2. Aravalli Range

✗ 3. Vindhya Range

✗ 4. Western Ghats

Q.67 **Which of the following taxonomic groups consists of organisms that can interbreed and produce fertile offspring?**

Ans

✗ 1. Family

✓ 2. Species

✗ 3. Class

✗ 4. Kingdom

Q.68 **Which of the following capital cities hosted the high-level ministerial Quad meeting in July 2026, addressing free navigation networks and maritime security during ASEAN framework discussions?**

Ans

✓ 1. Manila

✗ 2. Kuala Lumpur

✗ 3. Bangkok

✗ 4. Jakarta

Q.69 **The position(s) of how many letters will remain unchanged if each of the letter in the word JURYMAN is arranged in the English alphabetical order?**

Ans

✗ 1. Three

✓ 2. Zero

✗ 3. One

✗ 4. Two

Q.70 **Which Article of the Indian Constitution guarantees the Right to Education?**

Ans

✗ 1. Article 25

✗ 2. Article 19

✓ 3. Article 21A

✗ 4. Article 16

Q.71 **19 is related to 153 following a certain logic. Following the same logic, 44 is related to 353. To which of the following is 31 related to, 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

✗ 1. 246

✗ 2. 243

✓ 3. 249

✗ 4. 251

Q.72 **A manufacturer fixes his selling price at 50% over the cost of production. If the cost of production goes up by 50%, and the manufacturer raises his selling price by 22%, find the profit percentage.**

Ans

✗ 1. 25%

✓ 2. 22%

✗ 3. 21%

✗ 4. 23%

Q.73 If $12\sin A + \cos A = \sqrt{4}\sin A$, find the value of $\tan A$.

Ans

✗ 1. $-\frac{1}{20}$

✗ 2. $-\frac{1}{7}$

✓ 3. $-\frac{1}{10}$

✗ 4. $-\frac{1}{16}$

Q.74 **Which statement accurately describes the role of protons when comparing the atoms of different elements?**

Ans

✓ 1. The number of protons in the nucleus determines the identity of the element.

✗ 2. The way protons participate in bonding determines the element.

✗ 3. The number of neutrons in the nucleus determines the identity of the element.

✗ 4. The mass of protons determines the element.

Q.75 **Which of the following letter-clusters will replace the question mark (?) in the given series to make it logically complete?**

PET 15 QHP 30 RKL 60 SNH 120 ?

Ans

✗ 1. SPD 260

✗ 2. TPD 260

✓ 3. TQD 240

✗ 4. SQD 240

Q.76 **Ratan starts from point A and drives 35 km towards East. He then takes a right turn and drives 56 km. He takes a final left turn and drives 19 km and stops at point B. Dinesh starts from point P, which is 99 km East of Point A, and drives 15 km towards West. He then takes a left turn and drives 56 km. He takes a final right turn and drives 25 km and stops at Point Q. What is the shortest distance between Point Q and Point B? (All turns are 90-degree turns only.)**

Ans

✗ 1. 4 km

✗ 2. 2 km

✗ 3. 7 km

✓ 4. 5 km

blackbook

Q.77 **By the year 1925, how many provinces in British India had enacted Panchayat Acts to formalise local self-governance?**

Ans
- ✔ 1. Eight
- ✘ 2. Six
- ✘ 3. Four
- ✘ 4. Twenty

Q.78 **A, B, C, D, G, H and I are sitting around a circular table facing the centre of the table. I sits third to the left of A. B sits second to the left of D. A is an immediate neighbour of both H and B. G is not an immediate neighbor of I. How many people sit between C and B when counted from the right of C?**

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

Q.79 **From a point A, which is at a distance of 30 cm from centre O of a circle of radius 18 cm, in the same plane, a pair of tangents AB and AC are drawn to the circle. The area of quadrilateral ABOC is:**

Ans
- ✘ 1. 216 cm^2
- ✘ 2. 456 cm^2
- ✔ 3. 432 cm^2
- ✘ 4. 240 cm^2

Q.80 **A botanist uses a custom spring launcher to propel lightweight plant seeds horizontally onto a test field. If the launcher imparts a uniform acceleration of 7 m/s^2 to each 0.06 kg seed for 0.8 seconds, which of the following values best represents the average force exerted on a single seed during launch?**

Ans
- ✘ 1. 0.13 N
- ✘ 2. 0.34 N
- ✘ 3. 0.052 N
- ✔ 4. 0.42 N

Q.81 **A technician in a spacecraft repairs a loose panel by pushing it toward the wall without touching any other object. The panel moves in one direction, and the technician drifts in the opposite direction. Which explanation best describes this observation?**

Ans
- ✘ 1. The technician moves more than the panel because the technician has greater mass
- ✔ 2. The technician and panel experience equal forces in opposite directions, causing both to move apart
- ✘ 3. The panel moves because the technician applies a force, but the technician remains still
- ✘ 4. The technician moves due to air resistance inside the spacecraft, not because of the push

Q.82 **If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 1857632, what will be the sum of the digits which are second from the left and third from the right of the new number thus formed?**

Ans
- ✔ 1. 10
- ✘ 2. 9
- ✘ 3. 11
- ✘ 4. 8

Q.83 **An object moves with constant velocity, and a retarding force is applied in the opposite direction. The object stops after moving a distance s. How is the work done by this retarding force represented?**

Ans
- ✘ 1. No work done
- ✘ 2. F×s (positive work)
- ✔ 3. F×(-s) or -F×s (negative work)
- ✘ 4. F×0 (zero work)

black book

Q.84 **Which of the following was a key outcome of India's 1991 foreign exchange reforms?**

Ans

✔ 1. Reducing government intervention and letting markets set rupee value

✘ 2. Tying the rupee's value exclusively to gold reserves

✘ 3. Standardising import tariffs uniformly across all goods

✘ 4. Banning government control over all foreign exchange dealings

Q.85 **If the ratio of two numbers is 2 : 1, and their HCF is 48, then their LCM is:**

Ans

✘ 1. 72

✘ 2. 120

✔ 3. 96

✘ 4. 144

Q.86 ABCDEF is a regular hexagon with DE = 24 cm. If the area of the hexagon is $k\sqrt{3}$ cm^2, then the sum of digits of k is ____.

Ans

✘ 1. 15

✔ 2. 18

✘ 3. 22

✘ 4. 25

Q.87 **What is the main role of apical meristem in the growth of a plant?**

Ans

✘ 1. Increase in girth of stem

✔ 2. Increase in length of stem and roots

✘ 3. Production of flowers and fruits

✘ 4. Formation of bark on tree

Q.88 **A wall clock is marked at ₹2000. If a shopkeeper offers a 20% discount, followed by a further 10% discount on the reduced price, what is the final price paid for the wall clock?**

Ans

✘ 1. ₹1620

✘ 2. ₹1800

✔ 3. ₹1440

✘ 4. ₹1600

Q.89 **Which Mughal emperor granted Sir Thomas Roe a firmān (imperial decree) allowing the English East India Company to establish factories and trade rights in Mughal territories?**

Ans

✔ 1. Jahangir

✘ 2. Akbar

✘ 3. Shah Jahan

✘ 4. Aurangzeb

Q.90 **Irank ranked 13th from the bottom and 63rd from the top in his class. How many students are there in his class?**

Ans

✘ 1. 70

✘ 2. 80

✔ 3. 75

✘ 4. 60

adda247

Q.91 **The first Khelo India Tribal Games 2026 were scheduled across which three cities of Chhattisgarh?**

Ans
- ✗ 1. Raipur, Bilaspur and Durg
- ✗ 2. Jagdalpur, Korba and Raigarh
- ✗ 3. Bilaspur, Sarguja and Ambikapur
- ✓ 4. Raipur, Jagdalpur and Sarguja

Q.92 **When was the National Rural Health Mission (NRHM) officially launched in India for the improvement of healthcare delivery in rural areas?**

Ans
- ✗ 1. 2014
- ✗ 2. 2008
- ✓ 3. 2005
- ✗ 4. 2011

Q.93 **The average score of 100 students in a test is 63. Out of the total students, 50% are girls. The average score of boys is 10% more than that of the girls. Find the average score of girls.**

Ans
- ✓ 1. 60
- ✗ 2. 62
- ✗ 3. 58
- ✗ 4. 66

Q.94 **Refer to the following letter, symbol series and answer the question. Counting to be done from left to right only.**
(Left) L P M Q % Y G Q & W + @ % D K & Ω λ H K E (Right)
How many such symbols are there each of which are immediately preceded by a symbol and also immediately followed by a letter?

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

Q.95 **Two convex lenses are made of the same material. One lens is more strongly curved than the other. Which statement is correct about their focal lengths?**

Ans
- ✗ 1. Both lenses have the same focal length because they are made of the same material.
- ✓ 2. The more strongly curved lens has a shorter focal length.
- ✗ 3. The focal length depends only on the thickness of the lens.
- ✗ 4. The more strongly curved lens has a longer focal length.

Q.96 If $5^{3x + 4} = (5^4)^{105}$, then what is the integral part of x?

Ans
- ✗ 1. 136
- ✗ 2. 139
- ✓ 3. 138
- ✗ 4. 137

Q.97 **What should come in place of the question mark (?) in the given series?**

4 8 11 22 25 ?

Ans
- ✗ 1. 26
- ✗ 2. 28
- ✗ 3. 53
- ✓ 4. 50

blackbook

Q.98 **Which statement accurately describes how the mass number of an atom is determined?**

Ans

✗ 1. It is the total number of electrons and protons in the atom.

✗ 2. It is the difference between the number of protons and neutrons.

✗ 3. It is the number of protons only in the nucleus.

✓ 4. It is the total number of protons and neutrons in the nucleus.

Q.99 **A, B, U, V, Y and Z each scored different marks. Only two people have scored more than Z. Only U has scored less than V. B has scored more than A but less than Y. How many people have scored more than A?**

Ans

✗ 1. Four

✓ 2. Three

✗ 3. Two

✗ 4. One

Q.100 **Pari has to travel 909 km in 14 hours. She travels at 45 km/h for the first 3 hours, and then at 42 km/h for the next 126 km. At what speed must she travel for the rest of the journey to reach her destination in exactly 14 hours?**

Ans

✗ 1. 84 km/h

✗ 2. 78 km/h

✗ 3. 75 km/h

✓ 4. 81 km/h

"

Blackbook

रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 04/2026 - जेई, डीएमएस, सीएमए - CEN - 04/2026 - JE, DMS, CMA

Test Date	27/10/2026
Test Time	12:45 PM - 2:15 PM
Subject / Exam Group	RRB JE DMS CMA CBT I

*** 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 JE DMS CMA CBT I**

Q.1 **The older alluvial tract of the Northern Plains, which forms terrace-like features above the floodplain, contains calcareous lime concretions locally called _____.**

Ans
✗ 1. Reh
✓ 2. Kankar
✗ 3. Kallar
✗ 4. Bhur

Q.2 **Which statement best illustrates the Law of Constant Proportions in a chemical compound?**

Ans
✓ 1. Water always contains hydrogen and oxygen in a fixed ratio by mass.
✗ 2. Salt can have changing ratios of sodium and chlorine.
✗ 3. Air contains varying amounts of gases based on location.
✗ 4. Copper sulfate may have different amounts of copper and sulfur.

Q.3 **Why is the enrichment of ores necessary before extracting metals?**

Ans
✗ 1. To change the physical state of the ore from solid to liquid before extraction
✗ 2. To mix the ore with impurities to increase its weight
✗ 3. To convert the ore into a pure metal directly without further processing
✓ 4. To reduce the cost and energy required during metal extraction by removing impurities

Q.4 **Which of the following metals react with moist carbon dioxide in the air and slowly loses its shiny brown surface and gains a green coat?**

Ans
✓ 1. copper
✗ 2. gold
✗ 3. aluminium
✗ 4. zinc

Q.5 **A, B, U, V, Y, and Z each scored different marks. Only two people have scored less than V. A has scored immediately more than U. Only two people have scored between U and B. Z has scored more than Y. No one has scored less than B. How many people have scored more than Z?**

Ans
✗ 1. Two
✗ 2. One
✗ 3. Three
✓ 4. Zero

Q.6 **Which structural feature enables arteries to withstand high blood pressure?**

Ans

✔ 1. Thick, elastic walls

✘ 2. One-cell thick walls

✘ 3. Thin, elastic walls

✘ 4. Valves to stop backflow

Q.7 **Which of the following is NOT a duty of the Vice-President as the Chairman of the Rajya Sabha?**

Ans

✘ 1. Allowing members to speak

✘ 2. Maintaining order in the House

✔ 3. Casting a vote in every bill

✘ 4. Putting bills and motions to vote

Q.8 **The revised Delegation of Financial Powers for Defence Services, released in June 2026, was mainly aimed at strengthening which aspect of defence administration?**

Ans

✘ 1. Foreign procurement through single vendors

✘ 2. Civilian control over sports bodies

✘ 3. Recruitment rules for Agniveers

✔ 4. Operational efficiency of field commanders

Q.9 **What is the average of the following six decimal numbers: 1.2, 2.4, 3.6, 4.8, 5.0, and 6.0? (Rounded off to two decimal places)**

Ans

✘ 1. 3.60

✔ 2. 3.83

✘ 3. 4.25

✘ 4. 2.83

Q.10 **In 2026, AIKosh was highlighted in India's AI governance and innovation ecosystem. What is AIKosh mainly associated with?**

Ans

✘ 1. Cybercrime police stations

✔ 2. AI datasets and sectoral models

✘ 3. Satellite-launch authorisation

✘ 4. Defence procurement contracts

Q.11 **If 40% of a number is added to 120, then the result is the same number. 80% of the same number is:**

Ans

✘ 1. 120

✘ 2. 180

✔ 3. 160

✘ 4. 140

Q.12 **In a row of 54 people facing the north, Firoz is 23rd from the left end. If Sourav is sitting 5th to the left of Firoz, what is Sourav's position from the right end of the line?**

Ans

✘ 1. 36^{th}

✘ 2. 35^{th}

✔ 3. 37^{th}

✘ 4. 34^{th}

Q.13 **The position(s) of how many letters will remain unchanged if each of the letters in the word MOBILE is arranged in the English alphabetical order?**

Ans

✔ 1. Zero

✘ 2. One

✘ 3. Two

✘ 4. Three

Q.14 **An equilateral triangle ABC is inscribed in a circle of radius 10 cm with centre O. Find the radius of that circle which is inscribed in equilateral triangle ABC.**

Ans

✘ 1. 6 cm

✔ 2. 5 cm

✘ 3. 8 cm

✘ 4. 4 cm

Q.15 **A cart is pulled 5.4 m along a horizontal surface by a 40 N force acting at an angle of 30° to the horizontal. What is the work done by the force (approximately)?**

Ans

✘ 1. 135 J

✔ 2. 187 J

✘ 3. 169 J

✘ 4. 175 J

Q.16 If $\sec^2\alpha + \tan^2\alpha = \frac{5}{3}$, what is the value of $\tan 2\alpha$?

Ans

✘ 1. ± 1

✘ 2. $\pm \frac{1}{\sqrt{3}}$

✔ 3. $\pm \sqrt{3}$

✘ 4. 0

Q.17 **Simplify the following.**

$100 - [20 + 5 \times (4^2 - 6)]$

Ans

✘ 1. 40

✔ 2. 30

✘ 3. 33

✘ 4. 29

Q.18 **Two friends, X and Y, started a business with initial capital contributions of ₹180 and ₹240, respectively. At the end of the year, the business made a profit of ₹17,297. Find the share of X (in ₹) in the profit.**

Ans

✔ 1. 7,413

✘ 2. 7,363

✘ 3. 7,263

✘ 4. 7,313

Q.19 **Which Indian cricketer became the fourth Indian to surpass 20,000 international runs in December 2025?**

Ans

✘ 1. Sourav Ganguly

✔ 2. Rohit Sharma

✘ 3. Virat Kohli

✘ 4. Shikar Dhawan

Black book

Q.20 **After two years of 7% compound depreciation, a toy car's value is ₹21,576. What was the toy car's value at the end of the first year?**

Ans

✗ 1. ₹23,900

✓ 2. ₹23,200

✗ 3. ₹22,500

✗ 4. ₹23,320

Q.21 **If a square-shaped park is surrounded by a path of uniform width of 2.5 metres all around it and area of the path is 295 square metres, find the area of the park, including the path.**

Ans

✗ 1. 729 m^2

✗ 2. 625 m^2

✓ 3. 1024 m^2

✗ 4. 900 m^2

Q.22 **Homologous series have the same:**

Ans

✗ 1. Molecular mass

✗ 2. Molecular formula

✗ 3. Number of carbon atoms

✓ 4. General formula

Q.23 **A product is sold at a profit of 179% on its cost price. If the cost price and selling price are interchanged, what percentage loss would be incurred on the transaction? Give your answer correct to two decimal places.**

Ans

✗ 1. 65.69%

✓ 2. 64.16%

✗ 3. 64.13%

✗ 4. 65.56%

Q.24 **The release of a mature egg every month from an ovary in human females is called _____.**

Ans

✗ 1. Implantation

✓ 2. Ovulation

✗ 3. Fertilization

✗ 4. Menstruation

Q.25 **Refer to the following letter, symbol series and answer the question. Counting to be done from left to right only.**
(Left) R © @ G D $ @ % N P D # P D % N © F H $ Z H (Right)
How many such symbols are there each of which is immediately preceded by a letter and also immediately followed by a letter?

Ans

✗ 1. 8

✗ 2. 7

✗ 3. 5

✓ 4. 4

Q.26 **Which of the following compounds can undergo an addition reaction, and what feature of its structure makes this possible?**

Ans

✓ 1. Ethene; Because it contains a double bond

✗ 2. Propane; Because it contains only single bonds

✗ 3. Ethanol; Because it has a hydroxyl group

✗ 4. Methanoic acid; Because it contains a carboxylic group

blackbook

Q.27 **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, R, D, A, L and X, each having a different height, which stick is the tallest?

Statements:
(I) A is shorter than only two sticks. X is taller than A.
(II) L is taller than X.

Ans
✗ 1. Data in statement II alone is sufficient to answer the question while data in statement I is not.
✓ 2. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.
✗ 3. Data in statement I alone is sufficient to answer the question while data in statement II is not.
✗ 4. Data in both statements I and II together are NOT sufficient to answer the question.

Q.28 **Rohan is the son of Vikram. Vikram is the brother of Neha. Neha is the wife of Arjun. Arjun is the father of Priya. How is Rohan related to Priya?**

Ans
✗ 1. Father's sister's son
✓ 2. Mother's brother's son
✗ 3. Father's brother's son
✗ 4. Mother's sister's son

Q.29 **If the object distance is negative in the mirror formula, what does this indicate about the object's position?**

Ans
✗ 1. The object is behind the mirror
✓ 2. The object is placed in front of the mirror
✗ 3. The object is at the center of curvature
✗ 4. The object is at the focal point

Q.30 **If '+' means '−', '−' means '×', '×' means '÷', '÷' means '+', then what will come in place of the question mark (?) in the following equation?**

25 − 4 ÷ 15 + 42 × 2 = ?

Ans
✗ 1. 96
✓ 2. 94
✗ 3. 97
✗ 4. 98

Q.31 **Select the pair which follows the same pattern as that followed by the two set of pairs given below. Both pairs follow the same pattern.**

GLR : EJV
MTS : KRW

Ans
✗ 1. KKJ : IIM
✗ 2. MXP : KZT
✓ 3. LHO : JFS
✗ 4. JMN : HLR

Q.32 **This question is based on the following words**
(left) OPT DOG NOD HAT (right)
How many letters are there between the third letter of the third word from the right and the first letter of the first word from the left as per English alphabetical order?

Ans
✗ 1. 10
✗ 2. 6
✗ 3. 8
✓ 4. 7

blackbook

Q.33 **What happens to a ray of light when it passes from air into a glass convex lens?**

Ans

✗ 1. It continues in a straight line without bending

✗ 2. It bends away from the normal as it enters the lens

✓ 3. It bends towards the normal as it enters the lens

✗ 4. It reflects back into the air

Q.34 **A ball rolls down a slope with a constant acceleration of 3 meters per second squared for 4 seconds. What is its final velocity if it started from rest?**

Ans

✗ 1. 16 meters per second

✗ 2. 3 meters per second

✓ 3. 12 meters per second

✗ 4. 7 meters per second

Q.35 **What should come in place of the question mark (?) in the given series?**

17 28 50 83 127 ?

Ans

✗ 1. 188

✗ 2. 193

✗ 3. 199

✓ 4. 182

Q.36 **Black soil, valued for its high moisture-retention capacity and suitability for cotton cultivation, is chiefly derived from the weathering of Deccan Trap lava and is found across which region of India?**

Ans

✓ 1. Deccan Plateau

✗ 2. Eastern Himalayas

✗ 3. Indo-Gangetic Plain

✗ 4. Thar Desert

Q.37 **Why does the inner lining of the uterus thicken each month during a woman's reproductive years?**

Ans

✓ 1. To prepare for possible implantation of a fertilized egg

✗ 2. To trigger the release of reproductive hormones

✗ 3. To support sperm movement through the uterus

✗ 4. To assist the ovary in releasing mature eggs

Q.38 **A delivery robot moves a package along a conveyor belt. If the robot doubles the mass of the package but keeps the acceleration unchanged, what happens to the force the robot must apply considering other resistive forces negligible?**

Ans

✗ 1. The force required by the robot remains unchanged

✓ 2. The force required by the robot becomes twice as large as before

✗ 3. The force required by the robot becomes half as large as before

✗ 4. The force required by the robot becomes four times as large as before

Q.39 **What happens when a nonbiodegradable substance remains on earth for a longer period?**

Ans

✗ 1. Enhances the soil nutrition & promotes environment health

✗ 2. Promote the water cycle of environment

✗ 3. Improves the quality of life of nearby living animals

✓ 4. Causes pollution & harms the members of ecosystem

black book

Q.40 In a certain code,
'honest successful person' is coded as 'cf py kj',
'honest reviews film' is coded as 'cb iq cf' and
'all successful reviews' is coded as 'py yj iq'.
(All the codes are two-letter codes only.)

What is the code for successful?

Ans
✗ 1. cf
✓ 2. py
✗ 3. vj
✗ 4. kj

Q.41 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?

5 B 6 D 117 A 3 C 18 = ?

Ans
✗ 1. 18
✓ 2. 9
✗ 3. 21
✗ 4. 13

Q.42 174 is related to 81 following a certain logic. Following the same logic, 196 is related to 92. To which of the following is 324 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 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.)

Ans
✗ 1. 298
✗ 2. 195
✗ 3. 237
✓ 4. 156

Q.43 Which Viceroy of India was associated with the Cabinet Mission Plan?

Ans
✗ 1. Lord Irwin
✓ 2. Lord Wavell
✗ 3. Lord Mountbatten
✗ 4. Lord Linlithgow

Q.44 Luv starts from point A and drives 4 km towards east. He then takes a right turn and drives 10 km. He takes a final left turn and drives 8 km and stops at point B. Kush starts from point P, which is 13 km east of Point A, and drives 6 km towards east. He then takes a right turn and drives 10 km .He takes a final left turn and drives 2 km and stops at Point Q. What is the shortest distance between Point Q and Point B? (All turns are 90 degree turns only.)

Ans
✓ 1. 9 km
✗ 2. 8 km
✗ 3. 10 km
✗ 4. 11 km

Q.45 **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'
A % B means 'A is the father of B'
A # B means 'A is the daughter of B'
Based on the above, how is Tm related to Pt if 'Tm % Np + Dm # Gu % Pt'?

Ans
✗ 1. Wife's father
✗ 2. Daughter's husband
✓ 3. Mother's father
✗ 4. Father's father

Q.46 **Refer to the following letter, symbol series and answer the question. Counting to be done from left to right only.**
(Left) % S = T A # O M O H E Z E L R U V & J C / (Right)
How many such letters are there each of which is immediately preceded by a symbol and also immediately followed by a letter?

Ans
✗ 1. Two
✓ 2. Three
✗ 3. Four
✗ 4. One

Q.47 **What should come in place of '?' in the given series based on the English alphabetical order?**
LIF, SPM, ZWT, GDA, ?

Ans
✓ 1. NKH
✗ 2. NJI
✗ 3. OKH
✗ 4. OLI

Q.48 **Three resistors 18 Ω, 28 Ω and 36 Ω are connected in parallel. The equivalent resistance is _____.**

Ans
✗ 1. 82.00 Ω
✗ 2. 8.20 Ω
✓ 3. 8.40 Ω
✗ 4. 27.33 Ω

Q.49 **12 chairs and 5 tables cost ₹6,300 and 12 chairs and 4 tables cost ₹5,100. What is the cost of 4 chairs and 17 tables?**

Ans
✗ 1. ₹20,503
✓ 2. ₹20,500
✗ 3. ₹20,498
✗ 4. ₹20,502

Q.50 **Which of the following statements about the atomic number is CORRECT?**

Ans
✓ 1. Atomic number determines the number of electrons in a neutral atom.
✗ 2. Atomic number is the sum of protons and neutrons in an atom.
✗ 3. Atomic number changes when an atom loses or gains electrons.
✗ 4. Atomic number is always greater than the mass number.

Q.51 If the mean of the following data is 41, then what is the value of x?

Class	20-30	30-40	40-50	50-60	60-70
Frequency	48	39	43	25	X

Ans
✗ 1. 27
✓ 2. 20
✗ 3. 25
✗ 4. 22

Q.52 Find the value of $\frac{1}{\cos^2 80^\circ} - \tan^2 80^\circ$.

Ans
✗ 1. 0
✓ 2. 1
✗ 3. $\cot^2 40^\circ$
✗ 4. $\cot^2 160^\circ$

Q.53 **Why is a flower covered with a cloth bag during pollination experiments?**

Ans
✓ 1. To prevent unwanted pollen from reaching the flower
✗ 2. To accelerate the overall growth rate of the petals
✗ 3. To protect the growing plant from catching the disease
✗ 4. To shield the delicate plant from heavy wind and rain

Q.54 **Which of the following leaders is correctly matched to the organization he founded?**

Ans
✓ 1. Sir Syed Ahmed Khan – Aligarh Movement
✗ 2. Jyotirao Phule – Paramahansa Mandali
✗ 3. M. G. Ranade – Brahmo Samaj
✗ 4. Swami Vivekananda – Arya Samaj

Q.55 **A student tests a substance in water and finds that it turns blue litmus paper red and increases electrical conductivity. What is the most likely identity of the substance?**

Ans
✗ 1. A neutral substance
✓ 2. An acid
✗ 3. A base
✗ 4. A salt

Q.56 **Rabindranath Tagore was awarded the Nobel Prize in Literature in which year?**

Ans
✓ 1. 1913
✗ 2. 1915
✗ 3. 1919
✗ 4. 1917

Q.57 **R,S,T,U,G,H and I are sitting around a circular table facing the centre of the table.**
Only four people sit between G and S when counted from the right of G.G sits third to the left of U.
H sits third to the left of R.T is an immediate neighbor of both S and U.
How many people sit between I and T when counted from the right of I?

Ans
✗ 1. Four
✗ 2. One
✗ 3. Three
✓ 4. Two

blaoo

Q.58 **The symbol Fe for iron is derived from:**

Ans

✗ 1. the colour of the iron.

✗ 2. the name of its ore called ferrate.

✗ 3. France as it was found there for the first time.

✓ 4. its Latin name ferrum.

Q.59 **Which symbol represents the element Oxygen in the periodic table?**

Ans

✗ 1. N

✗ 2. H

✓ 3. O

✗ 4. C

Q.60 **Atharv has to travel 918 km to reach Amritsar in 20 hours. He travels at 65 km/h for the first 7 hours and then covers the next 183 km at 61 km/h. At what speed should he travel for the remaining distance to reach Amritsar in exactly 20 hours?**

Ans

✗ 1. 32 km/h

✓ 2. 28 km/h

✗ 3. 36 km/h

✗ 4. 24 km/h

Q.61 **In a controlled laboratory experiment, a drone hovers motionless above a sealed tank filled with a dense gas. As the drone's rotors accelerate, the drone unexpectedly begins to ascend even though its overall mass remains unchanged. Which best explains the upward movement of the drone in terms of Newton's third law and the nature of action-reaction pairs between the drone and the gas?**

Ans

✓ 1. The rotors push the dense gas downward, and the gas exerts an equal upward force on the drone, causing it to rise.

✗ 2. The dense gas is unaffected by the rotors, so the drone rises due to internal mechanisms only.

✗ 3. The drone creates a pressure difference above and below itself, but the gas experiences no direct force from the rotors.

✗ 4. The drone pulls itself upward without interacting with the gas, so no reaction force is involved.

Q.62 **Divide ₹31500 into three parts in such a way that half of the first part, one-fourth of the second part and one-eighth of the third part are equal. Find the first part (in ₹).**

Ans

✗ 1. 4200

✗ 2. 4400

✗ 3. 4600

✓ 4. 4500

Q.63 **A manufacturer fixes his selling price at 26% over the cost of production. If the cost of production goes up by 8%, and the manufacturer raises his selling price by 50%, find the profit percentage.**

Ans

✗ 1. 76%

✗ 2. 73%

✓ 3. 75%

✗ 4. 72%

Q.64 **One of the quadrilateral's diagonals is 54 cm long, and the perpendiculars drawn from the other two vertices this diagonal are 38 and 18 cm, respectively. Determine the quadrilateral's area.**

Ans

✗ 1. $1612\ \text{cm}^2$

✗ 2. $1812\ \text{cm}^2$

✓ 3. $1512\ \text{cm}^2$

✗ 4. $1712\ \text{cm}^2$

Q.65 Which value of m satisfies the following equation?

$$\left(\frac{11}{4}\right)^{11} \times \left(\frac{4}{11}\right)^{12} \times \left(\frac{11}{4}\right)^{5} = \left(\frac{4}{11}\right)^{7m+17}$$

Ans
- ✔ 1. -3
- ✘ 2. -5
- ✘ 3. -4
- ✘ 4. -15

Q.66 **Article 21 of the Constitution of India is related to which right?**

Ans
- ✘ 1. Right to Education
- ✘ 2. Right to Freedom of Religion
- ✔ 3. Protection of Life and Personal Liberty
- ✘ 4. Right to Equality

Q.67 **In which structure does the digestion of complex substances into simpler ones occur in Amoeba?**

Ans
- ✘ 1. In the cytoplasm directly
- ✘ 2. At the cell membrane
- ✔ 3. Inside the food-vacuole
- ✘ 4. Within the nucleus

Q.68 **A 382 m long train running at a speed of 72 km/h passes a platform in 30 seconds. Find the length of the platform (in m).**

Ans
- ✔ 1. 218
- ✘ 2. 215
- ✘ 3. 216
- ✘ 4. 217

Q.69 **One pipe can fill the tank in 24 minutes while another pipe can empty the tank in 88 minutes. If both the pipes are operated together on an empty tank, how long (in minutes) will it take to fill one-third of the tank?**

Ans
- ✔ 1. 11
- ✘ 2. 22
- ✘ 3. 44
- ✘ 4. 33

Q.70 **Each vowel in the word BECOMINGS is changed to the letter immediately preceding it in the English alphabetical order, and each consonant is changed to the letter immediately following it in the English alphabetical order. How many letters will appear exactly twice in the group of letters thus formed?**

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

Q.71 **What should come in place of the question mark (?) in the given series?**

3.6 7.8 12.0 16.2 20.4 24.6 ?

Ans
- ✘ 1. 27.8
- ✘ 2. 28.6
- ✘ 3. 27.4
- ✔ 4. 28.8

blackbook

Q.72 **Which of the following explains why microwaves and radio waves contribute little to warming the Earth?**

Ans
- ✗ 1. They are blocked by clouds
- ✗ 2. They are absorbed by ozone
- ✗ 3. They are trapped by gases
- ✓ 4. They carry very little energy

Q.73 **If the molecular mass of a diatomic element X_2 is 70 u, the atomic mass of X is:**

Ans
- ✗ 1. 70 u
- ✓ 2. 35 u
- ✗ 3. 17.5 u
- ✗ 4. 140 u

Q.74 **The average marks obtained in mathematics by the students of a class was 63. The average marks obtained by the boys is 20% more than the average marks obtained by the girls. If the ratio of the number of boys to that of girls is 5 : 8, then the average marks obtained by the girls is:**

Ans
- ✗ 1. 58
- ✗ 2. 62
- ✗ 3. 59.7
- ✓ 4. 58.5

Q.75 **The marshy, forested Terai belt lying south of the Bhabar is well known for hosting which national park?**

Ans
- ✗ 1. Gir National Park
- ✓ 2. Dudhwa National Park
- ✗ 3. Ranthambore National Park
- ✗ 4. Kaziranga National Park

Q.76 **13 is related to 98 following a certain logic. Following the same logic, 21 is related to 154. To which of the following is 25 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 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.)

Ans
- ✓ 1. 182
- ✗ 2. 195
- ✗ 3. 163
- ✗ 4. 174

Q.77 **The diagonals of a rhombus shaped field are 138 m and 184 m long. What is the perimeter (in m) of the field?**

Ans
- ✗ 1. 445
- ✗ 2. 479
- ✓ 3. 460
- ✗ 4. 465

Q.78 **When white light passes through a prism, it splits into a spectrum of colours. Which factor primarily determines the order of these colours?**

Ans
- ✗ 1. The geometric shape of the prism
- ✓ 2. The variation in refractive index for different wavelength
- ✗ 3. The angle at which the white light enters the prism
- ✗ 4. The width of the white light beam

blackbook

Q.79 **A certain sum of money, when invested at simple interest, amounts to ₹1,750 in 2 years and ₹2,500 in 3 years. Find the rate of interest per annum, in %.**

Ans
- ✔ 1. 300
- ✘ 2. 125
- ✘ 3. 100
- ✘ 4. 200

Q.80 **Evaluate: 88 − {7 − (−48) ÷ (−12)}**

Ans
- ✔ 1. 85
- ✘ 2. 84
- ✘ 3. 83
- ✘ 4. 86

Q.81 **Which of the following organisms can synthesize their own food using sunlight and chlorophyll?**

Ans
- ✘ 1. Herbivores
- ✘ 2. Fungi
- ✔ 3. Green plants
- ✘ 4. Omnivores

Q.82 **Sachin invested ₹45000 at 4% per annum for 1 year at compound interest, compounded half-yearly. The amount received by him is:**

Ans
- ✔ 1. ₹46818
- ✘ 2. ₹46865
- ✘ 3. ₹47784
- ✘ 4. ₹46055

Q.83 **Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of :: ?**

 # : KHO:: MJQ: %

Ans
- ✘ 1. # = JGM, % = NKR
- ✔ 2. # = JGN, % = NKR
- ✘ 3. # = JGN, % = NKS
- ✘ 4. # = JGN, % = NLR

Q.84 **Which of the following countries hosted the 75th Lindau Nobel Laureate Meeting, held during June–July 2026, where young researchers interacted with Nobel laureates from around the world?**

Ans
- ✘ 1. Sweden
- ✘ 2. Switzerland
- ✘ 3. Austria
- ✔ 4. Germany

Q.85 **Which of the following accurately describes the main function of xylem vessels in complex permanent tissue?**

Ans
- ✘ 1. Providing only plant support
- ✘ 2. Transporting prepared food downward
- ✔ 3. Transporting water and minerals upward
- ✘ 4. Storing resins and latex

blackbook

Q.86 **Which of the following is a quantitative tool of monetary policy used by the Reserve Bank of India?**

Ans

✗ 1. Budget

✗ 2. Direct Action

✗ 3. Moral Suasion

✓ 4. Statutory Liquidity Ratio

Q.87 **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 man out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans

✗ 1. IL-CG

✗ 2. KN-EI

✓ 3. DJ-AF

✗ 4. MP-GK

Q.88 **A set of books is listed at ₹2,000. A bookseller offers a scheme discount of 15% on the marked price. What is the net price the customer pays?**

Ans

✗ 1. ₹1,800

✓ 2. ₹1,700

✗ 3. ₹1,600

✗ 4. ₹1,750

Q.89 **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 @ 9 # 1 % 7 & 2 $ 8 + 5 6

Code J M W T H P L F D R A U K Q

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

What is the code for the following?
5 9 1 8 2

Ans

✓ 1. KWH©D

✗ 2. KWHAD

✗ 3. K©HAD

✗ 4. KWHWD

Q.90 **Points M, N, X, and T lie on sides PQ, QR, RS, and SP, respectively, of square PQRS. If MNXT is also a square whose area is 74.5% of the area of PQRS, and XR > MQ, find the ratio MQ : XR.**

Ans

✗ 1. 2 : 15

✓ 2. 3 : 17

✗ 3. 4 : 5

✗ 4. 5 : 14

Q.91 **A chef installs a new heating filament in a restaurant toaster, ensuring that the filament is twice as long and made from a material with half the resistivity of the previous one, but keeps the cross-sectional area unchanged. Compared to the old filament, what will happen to the resistance of the new filament?**

Ans

✔ 1. It will remain the same as before

✘ 2. It will be four times greater than before

✘ 3. It will be half as much as before

✘ 4. It will be twice as much as before

Q.92 **The price (per litre) of petrol increases by 52%. By what percentage should its consumption be changed so that the total expenditure on petrol increases by only 14%?**

Ans

✘ 1. Increase by 30%

✔ 2. Decrease by 25%

✘ 3. Increase by 10%

✘ 4. Decrease by 20%

Q.93 **Who serves as the Chairperson of the National Disaster Management Authority (NDMA) as per the Disaster Management Act, 2005?**

Ans

✘ 1. Chairperson, NITI Aayog

✘ 2. Cabinet Secretary

✘ 3. Union Home Minister

✔ 4. Prime Minister of India

Q.94 **Which Five-Year Plan of India was postponed by two years due to political uncertainty at the centre and worsening balance of payment position, rising debt burden, widening budget deficits, recession in industry and inflation?**

Ans

✔ 1. Eighth Five-Year Plan

✘ 2. Fourth Five-Year Plan

✘ 3. Third Five-Year Plan

✘ 4. Second Five-Year Plan

Q.95 **A closed rectangular box has its edge lengths in the ratio 5 : 6 : 7. If it's total surface area is 3424 cm^2, find the length of the smallest edge.**

Ans

✔ 1. 20 cm

✘ 2. 24 cm

✘ 3. 16 cm

✘ 4. 18 cm

Q.96 **All 67 people are standing in a row facing North. Diksha is 13th from the left end while Raghav is 15th from the right end. How many people are there between Diksha and Raghav?**

Ans

✘ 1. 40

✔ 2. 39

✘ 3. 37

✘ 4. 38

Q.97 The value of $\frac{\left\{\left(\frac{2}{3}-\frac{1}{5}\right)^3+\left(\frac{1}{5}-\frac{1}{4}\right)^3+\left(\frac{1}{4}-\frac{2}{3}\right)^3\right\}}{\left\{\left(\frac{2}{3}\right)^2-\left(\frac{1}{5}\right)^2\right\}^3+\left\{\left(\frac{1}{5}\right)^2-\left(\frac{1}{4}\right)^2\right\}^3+\left\{\left(\frac{1}{4}\right)^2-\left(\frac{2}{3}\right)^2\right\}^3}$ is

Ans

✗ 1. $1\frac{7}{60}$

✓ 2. $2\frac{114}{143}$

✗ 3. 1

✗ 4. $5\frac{13}{125}$

Q.98 **During which stage of the water cycle does water vapor change into liquid form, often leading to cloud formation?**

Ans

✗ 1. Precipitation

✓ 2. Condensation

✗ 3. Transpiration

✗ 4. Evaporation

Q.99 **The table represents the number of persons in different age groups living in a building. Find the value of f, given that the mode of the data is 39.**

Age (in years)	Number of persons
0 – 15	12
15 – 30	f
30 – 45	24
45 – 60	18
60 – 75	11
75 - 90	7

Ans

✗ 1. 20

✗ 2. 12

✗ 3. 17

✓ 4. 15

Q.100 **An object is moved 7 m horizontally by a constant force of 250 N. It is then lifted 1 m vertically by the same force. In which case is more work done?**

Ans

✗ 1. More work is done during lifting because it is against gravity.

✓ 2. More work is done during horizontal motion because the displacement is greater.

✗ 3. Less work is done during horizontal motion because the object is not lifted.

✗ 4. Equal work is done in both cases because the applied force is the same.

Bigbook

रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 04/2026 - जेई, डीएमएस, सीएमए - CEN - 04/2026 - JE, DMS, CMA

Test Date	27/10/2026
Test Time	4:30 PM - 6:00 PM
Subject / Exam Group	RRB JE DMS CMA CBT I

*** 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 JE DMS CMA CBT I**

Q.1 **What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?**
315 - 280 x 5 ÷ 3 +19 =?

Ans
✗ 1. 482
✗ 2. 460
✓ 3. 464
✗ 4. 475

Q.2 **Raman's monthly income is ₹21,000. He saves 19% of his income. If his income increases by 14% and his expenditure increases by 20%, then his savings will:**

Ans
✗ 1. Increase by ₹459
✗ 2. Decrease by ₹457
✓ 3. Decrease by ₹462
✗ 4. Increase by ₹458

Q.3 **In the geomorphology of the Northern Plains of India, the saline and alkaline efflorescence patches that commonly occur in the relatively drier parts of the Bhangar are locally known by which term?**

Ans
✗ 1. Bhabar belt
✗ 2. Terai wetlands
✗ 3. Khadar deposits
✓ 4. Reh or Kallar

Q.4 **Which of the following movements is associated with the slogan "Do or Die"?**

Ans
✗ 1. Non-Cooperation Movement
✓ 2. Quit India Movement
✗ 3. Khilafat Movement
✗ 4. Civil Disobedience Movement

Q.5 **For a moderately asymmetrical grouped data distribution, the median is 35. The difference between the mode and the mean is 12. If the mean is greater than the mode, find the value of the mean. (Use the empirical relation among the mean, median, and mode)**

Ans
- ✗ 1. 38
- ✗ 2. 41
- ✗ 3. 40
- ✓ 4. 39

Q.6 **Which Classical Language is associated with the works of Kalidasa, Bhasa, and Bhavabhuti?**

Ans
- ✓ 1. Sanskrit
- ✗ 2. Prakrit
- ✗ 3. Hindi
- ✗ 4. Tamil

Q.7 **Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group?**
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans
- ✗ 1. SO–NJ
- ✗ 2. XT–SO
- ✓ 3. NJ–HG
- ✗ 4. AW–VR

Q.8 **What is the standard deviation of five numbers 8, 12, 16, 20, 24? (Rounded off to two decimal places.)**

Ans
- ✗ 1. 7.15
- ✓ 2. 5.66
- ✗ 3. 6.25
- ✗ 4. 4.52

Q.9 **A manufacturer fixes his selling price at 28% over the cost of production. If the cost of production goes up by 25%, and the manufacturer raises his selling price by 25%, find the profit percentage.**

Ans
- ✓ 1. 28%
- ✗ 2. 27%
- ✗ 3. 31%
- ✗ 4. 25%

Q.10 **Seven people, D, E, F, G, U, V and W, are sitting in a row facing the North. D sits second from the right end of the line. G sits to the immediate left of U. Only four people sit between E and D. Only three people sit to the right of W. V is not an immediate neighbour of W.**
How many people sit between E and W?

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

blackbook

Q.11 **Why should a lifeguard aiming to rescue an object under water not dive exactly toward its apparent position?**

Ans

✗ 1. The object continuously moves because of refraction.

✗ 2. The object appears farther away.

✗ 3. Water reflects the object.

✓ 4. The object appears shallower due to refraction.

Q.12 **In a certain code language,**
A # B means 'A is the daughter of B',
A $ B means 'A is the mother of B',
A & B means 'A is the wife of B', and
A % B means ' A is the father of B'.
Based on the above, how is F related to Z if 'F#T$O%Q&Z'?

Ans

✗ 1. Wife

✗ 2. Mother

✓ 3. Wife's father's sister

✗ 4. Wife's father's mother

Q.13 **M, N, O, X, Y and Z 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 two people live between M and Z. Only two people live between O and Y. Only one person lives between N and Y. N lives on floor numbered 1. M lives above Y.
How many people live above X?

Ans

✗ 1. Three

✗ 2. One

✗ 3. Four

✓ 4. Two

Q.14 Solve the following linear equations.

$2x-y+3z=8,\ x-y-z=7,\ x+y+z=10$

Ans

✗ 1. $x=\frac{-17}{2}, y=\frac{-27}{8}, z=\frac{15}{8}$

✗ 2. $x=\frac{17}{2}, y=\frac{-27}{8}, z=\frac{-15}{8}$

✗ 3. $x=\frac{17}{2}, y=\frac{27}{8}, z=\frac{15}{8}$

✓ 4. $x=\frac{17}{2}, y=\frac{27}{8}, z=\frac{-15}{8}$

Q.15 **Which of the following options when placed in place of the question mark (?) will logically complete the given series?**

15 22 40 79 129 200 282 ?

Ans

✗ 1. 387

✗ 2. 380

✓ 3. 385

✗ 4. 389

Q.16 **An amount of ₹15116.544 is due at the end of 3 years. If the annual compound interest rate is 8%, compounded annually, what is its present value?**

Ans

✗ 1. ₹12,500

✗ 2. ₹11,000

✗ 3. ₹13,000

✓ 4. ₹12,000

Black book

Q.17 **The scrotum helps to maintain a testicular temperature that is ____ normal body temperature, which is essential for sperm formation.**

Ans

✗ 1. Higher than

✗ 2. Equal to

✗ 3. Fluctuating with

✓ 4. Lower than

Q.18 **If $6a - b + 3c = -9$, $a + b - c = 4$ and $3a - b + 4c = -5$, then what is the value of $a + b + c$?**

Ans

✗ 1. -1

✓ 2. 6

✗ 3. 0

✗ 4. 1

Q.19 **In a certain code,**
'happy child plays' is coded as 'sy wc qz',
'happy smiles mother' is coded as 'ta gk sy' and
'beautifully child smiles' is coded as 'wc bt gk'.
(All the codes are two-letter codes only.)

What does the code 'bt' stand for?

Ans

✗ 1. happy

✗ 2. plays

✗ 3. child

✓ 4. beautifully

Q.20 **PQ and RS are two parallel chords on the same side of the centre of the circle having radius of 17 cm and centre O. What is the distance (in cm) between PQ and RS if PQ is 16 cm and RS is 30 cm?**

Ans

✗ 1. 5

✗ 2. 8

✗ 3. 6

✓ 4. 7

Q.21 **A biomedical engineer is designing an MRI machine that uses a solenoid to generate a uniform magnetic field inside the imaging chamber. To increase the field strength without changing the current, she considers changing the solenoid's design. Which modification would most effectively enhance the field inside the chamber while keeping the chamber's size constant?**

Ans

✗ 1. Using a thicker wire for the coil windings inside the solenoid

✗ 2. Spacing the turns of the solenoid farther apart within the same chamber

✗ 3. Placing a non-magnetic (e.g., plastic) core inside the solenoid

✓ 4. Increasing the number of tightly wound turns per unit length of the solenoid

Q.22 **Geetanjali covers three equal distances with the speeds 50 km/h, 60 km/h and 80 km/h respectively. Calculate the average speed of the journey. Write your answer round off to two decimal places.**

Ans

✗ 1. 64.23 km/h

✗ 2. 65.02 km/h

✓ 3. 61.02 km/h

✗ 4. 62.01 km/h

adda247

Q.23 **How many electrons are in the outermost shell of Chlorine (Z = 17) and Neon (Z = 10), respectively?**

Ans

✗ 1. 7, 2

✗ 2. 7, 7

✗ 3. 8, 7

✓ 4. 7, 8

Q.24 **1 Ampere of current is passed through a bulb for 10 seconds. If the amount of current is doubled, keeping the time the same, how much charge would have passed through the filament of the bulb compared to the initial case?**

Ans

✓ 1. Double the charge than the initial case

✗ 2. Same amount as in the initial case

✗ 3. Exactly half as in the initial case

✗ 4. Four times the initial case

Q.25 **Electrolytic refining is used for the purification of which of the following?**

Ans

✗ 1. Alloys

✗ 2. Non-metals

✗ 3. Sugar

✓ 4. Metals

Q.26 **What should come in place of the question mark (?) in the given series?**

243 226 210 195 181 168 ?

Ans

✗ 1. 161

✓ 2. 156

✗ 3. 158

✗ 4. 152

Q.27 **A group of numbers/symbols is coded using letter codes as per the codes given below and the conditions that 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	7	4	5	#	@	&	?	$	+	%
Code	J	P	L	C	M	Z	T	G	F	D

Conditions:
(i) If the first element is an odd number, interchange the codes of the first and last elements.
(ii) If the second and third elements are symbols, code the third element as the code of the second element.
(iii) If the fourth element is an even number, code both fourth and fifth elements as ©.

What is the code for the following group of number-symbols?
745#@

Ans

✓ 1. MPLCJ

✗ 2. ZPLCM

✗ 3. JPLCM

✗ 4. JPTCM

Q.28 **Select the pair which follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.**

BKP : EMM
JLQ : MNN

Ans
- ✔ 1. QDJ : TFG
- ✘ 2. BPN : ESK
- ✘ 3. KXL : NYI
- ✘ 4. INX : LPV

Q.29 **Akshat invested ₹85100 at 20% per annum for 1 year at compound interest, compounded half-yearly. The amount received by him is:**

Ans
- ✘ 1. ₹102649
- ✘ 2. ₹103140
- ✔ 3. ₹102971
- ✘ 4. ₹102904

Q.30 The length of the diagonal of a square is $6\sqrt{2}$ cm. Find the perimeter (in cm) of the sq

Ans
- ✘ 1. 20
- ✘ 2. 48
- ✔ 3. 24
- ✘ 4. 32

Q.31 **Each vowel in the word EXTERNALITY is changed to the second letter 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 group of letters thus formed?**

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

Q.32 **Divide ₹4984 into three parts in such a way that half of the first part, one-fourth of the second part and one-eighth of the third part are equal. Find the third part (in ₹).**

Ans
- ✘ 1. 2548
- ✔ 2. 2848
- ✘ 3. 3148
- ✘ 4. 2748

Q.33 **The crescent-shaped sand dunes that cover the larger areas of the Thar Desert are known as _____.**

Ans
- ✘ 1. Seif dunes
- ✘ 2. Parabolic dunes
- ✘ 3. Star dunes
- ✔ 4. Barchans

Q.34 **A retailer purchases goods with a list price of ₹2,00,000. The seller offers a 20% trade discount and a 5% cash discount if payment is made within 10 days. If the retailer pays within the discount period, what is the final amount paid?**

Ans
- ✔ 1. ₹1,52,000
- ✘ 2. ₹1,60,000
- ✘ 3. ₹1,50,000
- ✘ 4. ₹1,51,000

Black book

Q.35 **Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on the first number results in the second number. Similarly, certain mathematical operations on the second number result in the third number and so on. Which of the given options follows the same set of operations as in the 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.)**
9 – 36 – 72 – 90;
11 – 44 – 88 – 106

Ans
- ✗ 1. 6 – 24 – 48 – 64
- ✗ 2. 4 – 64 – 128 – 146
- ✓ 3. 8 – 32 – 64 – 82
- ✗ 4. 7 – 28 – 56 – 72

Q.36 **Which of the following describes the arrangement and function of lateral meristem in plant stems?**

Ans
- ✗ 1. Found at nodes, forms branches
- ✗ 2. Scattered in stem, stores nutrients
- ✓ 3. Arranged in rings, increases diameter
- ✗ 4. Located at tip, increases length

Q.37 **The area of a square plot is 5041 m^2. The length of each side of the plot (in m) is:**

Ans
- ✓ 1. 71
- ✗ 2. 89
- ✗ 3. 79
- ✗ 4. 61

Q.38 **A product is sold at a profit of 122% on its cost price. If the cost price and selling price are interchanged, what percentage loss would be incurred on the transaction? Give your answer rounded off to two decimal places.**

Ans
- ✗ 1. 56.03%
- ✗ 2. 57.53%
- ✓ 3. 54.95%
- ✗ 4. 54.49%

Q.39 **Aman is the son of Pooja. Pooja is the wife of Rajesh. Rajesh is the brother of Deepak. Deepak is the father of Kavya. How is Aman related to Kavya?**

Ans
- ✗ 1. Mother's brother's son
- ✗ 2. Father's sister's son
- ✗ 3. Mother's sister's son
- ✓ 4. Father's brother's son

Q.40 **Refer to the following letter, symbol series and answer the question.**
(Left) # $ V Y W Ω F K Q λ * D A B H T σ I K % Y (Right)
If all the letters are dropped from the series, which of the following will be fourth from the left?

Ans
- ✗ 1. #
- ✗ 2. σ
- ✗ 3. $
- ✓ 4. λ

blackbook

Q.41 **A person claps near a cliff and hears the sound again after a short interval. Which observation confirms that the repeated sound is an echo?**

Ans

✗ 1. The reflected sound is heard immediately after the clap without any delay.

✗ 2. The reflected sound is louder than the original sound.

✗ 3. The reflected sound is heard at the same instant as the clap.

✓ 4. The reflected sound is heard after a noticeable delay.

Q.42 **Two elements, calcium (atomic number 20, mass number 40) and argon (atomic number 18, mass number 40) are compared. Which of the following statements is true for the given elements?**

Ans

✗ 1. They are isotopes because they have the same atomic number but different mass numbers.

✓ 2. They are isobars because they have the same mass number but different atomic numbers.

✗ 3. They are isobars because they have the same atomic number.

✗ 4. They are identical because both have the same mass number and atomic number.

Q.43 **Which of the following best describes the 'Repo Rate', a monetary policy tool of the Reserve Bank of India (RBI)?**

Ans

✗ 1. Rate at which banks lend to RBI

✓ 2. Rate at which RBI lends to commercial banks for short-term

✗ 3. Rate for long-term government loans

✗ 4. Percentage of deposits to be kept as reserves

Q.44 **India's oldest iron and steel plant, the Tata Iron and Steel Company (TISCO), was established in 1907 at the confluence of the Subarnarekha and Kharkai rivers in which city?**

Ans

✗ 1. Durgapur

✗ 2. Rourkela

✗ 3. Bhilai

✓ 4. Jamshedpur

Q.45 **This question is based on the following words**
DIM PIN URN OWL
How many letters are there between the first letter of the second word from the right and the second letter of the first word from the left as per English alphabetical order?

Ans

✗ 1. 12

✓ 2. 11

✗ 3. 10

✗ 4. 14

Q.46 **Refer to the following number, symbol series and answer the question. Counting to be done from left to right only. All numbers are single-digit numbers.**
(Left) 5 @ 3 $ 8 & 6 Ω 2 % 9 * 4 £ 7 # 1 & 3 (Right)
How many such symbols are there, each of which is immediately preceded by a number and also immediately followed by a number?

Ans

✓ 1. More than three

✗ 2. Two

✗ 3. One

✗ 4. Three

Q.47 **Two containers have different concentrations of red dye: one is 30% and the other is 50%. If 4 litres of the first and 6 litres of the second are mixed, what is the percentage of red dye in the mixture?**

Ans

✗ 1. 40%

✗ 2. 44%

✓ 3. 42%

✗ 4. 50%

black

Q.48 **As per the Bohr's Atomic model, the electronic configuration of Calcium atom (Atomic number 20) is:**

Ans

✗ 1. 2 , 8 , 2 , 8

✓ 2. 2 , 8 , 8 , 2

✗ 3. 2 , 2 , 8 , 8

✗ 4. 2 , 8 , 10

Q.49 If $15\sin A + \cos A = \sqrt{8}\sin A$, find the value of $\tan A$.

Ans

✗ 1. $\frac{-15-\sqrt{8}}{212}$

✓ 2. $\frac{-15-\sqrt{8}}{217}$

✗ 3. $\frac{-15-\sqrt{8}}{227}$

✗ 4. $\frac{-16-\sqrt{8}}{217}$

Q.50 **Which of the following events occurs after pollen grains reach the stigma in flowering plants?**

Ans

✗ 1. The pollen develops directly into a seed.

✓ 2. Fertilization takes place inside the ovule.

✗ 3. Nectar is produced by the flower.

✗ 4. The ovary develops into a flower.

Q.51 **If a mother or foetus faces risk during delivery, what action might a doctor take?**

Ans

✗ 1. Delay the delivery until all risks disappear

✗ 2. Wait passively without taking any action

✓ 3. Perform surgical procedures to ensure a safe delivery

✗ 4. Avoid all medical and surgical procedures regardless of risk

Q.52 **Two friends, X and Y, started a business with initial capital contributions of ₹160 and ₹230, respectively. At the end of one year, the business earned a total profit of ₹54,951. What is X's share (in ₹) of the profit?**

Ans

✓ 1. ₹22,544

✗ 2. ₹22,560

✗ 3. ₹22,551

✗ 4. ₹22,549

Q.53 **A bird starts from rest and flies by flapping its wings until it reaches a speed of 6 m/s. Which statement best explains how the bird gains kinetic energy?**

Ans

✗ 1. Air resistance increases the bird's kinetic energy.

✗ 2. Kinetic energy is produced without any energy transformation.

✗ 3. The branch transfers energy continuously during flight.

✓ 4. The bird's muscles convert stored chemical energy into kinetic energy.

Q.54 **What is the value of $\{(5 + 3)^2 - (4 \times 2)\} \div 4 \times 2 + 3$?**

Ans

✓ 1. 31

✗ 2. 30

✗ 3. 33

✗ 4. 34

blackbook

Q.55 **A boat takes 8 hours to travel 100 km upstream and 5 hours to travel 80 km downstream in a river. If the boat travels 60 km upstream and then 60 km downstream, how much total time (in hours) will it take? Also find the speed (in km/h) of the stream. (Options are written respectively)**

Ans

✔ 1. 8.55, 1.75

✘ 2. 8.45, 1.5

✘ 3. 8.45, 1.75

✘ 4. 8, 1.5

Q.56 **The Chipko Movement, a grassroots initiative against deforestation involving villagers embracing trees to prevent felling, originated in which present-day state?**

Ans

✘ 1. Sikkim

✔ 2. Uttarakhand

✘ 3. Himachal Pradesh

✘ 4. Jharkhand

Q.57 **Which metal will be least reactive in reaction with HCl?**

Ans

✘ 1. Magnesium

✘ 2. Zinc

✔ 3. Iron

✘ 4. Aluminium

Q.58 **Which body is responsible for auditing government expenditure in India?**

Ans

✘ 1. Central Vigilance Commission

✔ 2. Comptroller and Auditor General

✘ 3. Finance Commission

✘ 4. Union Public Service Commission

Q.59 The area of an equilateral triangle is $4\sqrt{3}$ cm^2. What will be the diameter of circumcircle (in cm) of the triangle?

Ans

✔ 1. $\frac{8\sqrt{3}}{3}$

✘ 2. $\frac{4\sqrt{3}}{3}$

✘ 3. $\frac{\sqrt{3}}{3}$

✘ 4. $\frac{2\sqrt{3}}{3}$

Q.60 Find the value of $\frac{\sqrt{\tan^2 A + (\operatorname{cosec}^2 A - 1) + 2}}{(\tan A + \cot A)}$.

Ans

✘ 1. cotA

✔ 2. 1

✘ 3. tanA

✘ 4. 2

Q.61 **Which of the following best explains why the Tyndall effect is NOT observed in a true solution?**

Ans

✘ 1. Particles in a true solution are colored

✘ 2. Air bubbles are absent in a true solution

✘ 3. Particles have a different refractive index

✔ 4. Particles in a true solution are too small to scatter light

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Q.62 **252 is related to 28 following a certain logic. Following the same logic, 306 is related to 34. To which of the following is 270 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 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.)

Ans

✗ 1. 37

✗ 2. 32

✗ 3. 35

✓ 4. 30

Q.63 **Which enzyme, present in the stomach, helps digest proteins?**

Ans

✓ 1. Pepsin

✗ 2. Trypsin

✗ 3. Amylase

✗ 4. Lipase

Q.64 **The British policy of "Divide and Rule" in India was primarily based on which of the following assumptions?**

Ans

✗ 1. A uniform civil code would be the most effective way to govern a diverse population.

✗ 2. Fostering cooperation between different communities was essential for maintaining peace.

✗ 3. Promoting linguistic diversity would help in the economic development of the country.

✓ 4. Recognizing and solidifying pre-existing, rigid religious and caste identities was key to effective administration.

Q.65 **Each vowel in the word BEFRIENDS is changed to the second letter following it in the English alphabetical order, and each consonant is changed to the letter immediately preceding it in the English alphabetical order. Which of the following letters will appear exactly twice in the group of letters thus formed?**

Ans

✗ 1. M

✓ 2. G

✗ 3. R

✗ 4. C

Q.66 **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: Five friends – Aadhya, Bhavin, Charit, Devika and Eshan – are of different ages. Who is the youngest?

Statements:
(I) Devika is younger than Charit but older than Bhavin.
(II) Aadhya is older than Devika, and Eshan is older than Charit.

Ans

✗ 1. Data in statement II alone is sufficient to answer the question while data in statement I is not.

✓ 2. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.

✗ 3. Data in statement I alone is sufficient to answer the question while data in statement II is not.

✗ 4. Data in both statements I and II together are NOT sufficient to answer the question.

Q.67 **Which statement about lymph is correct?**

Ans

✗ 1. Lymph contains more protein than blood plasma

✓ 2. Lymph has less protein than plasma and is colourless

✗ 3. Lymph is mainly made of platelets

✗ 4. Lymph contains more red blood cells than plasma

Q.68 **A student observes that light bends towards the normal when entering water from air. What does this suggest about the refractive index of water compared to air?**

Ans

✗ 1. Water has a lower refractive index than air

✗ 2. Refractive index of water depends on light's wavelength only

✓ 3. Water has a higher refractive index than air

✗ 4. Water and air have equal refractive indices

Q.69 **A can complete a piece of work in 4 days, while B can complete the same work in 52 days. B works alone for 13 days and then leaves. In how many days can A alone complete the remaining work?**

Ans

✗ 1. 4

✓ 2. 3

✗ 3. 2

✗ 4. 5

Q.70 **Which statement about the physical properties of metals is true?**

Ans

✗ 1. Mercury is the only metal that is solid at room temperature.

✗ 2. All metals are hard and cannot be cut with a knife.

✓ 3. The sonority of a metal is due to its ability to vibrate when struck.

✗ 4. All metals are equally good conductors of electricity.

Q.71 **If 3 is added to each even digit and 2 is added to each odd digit in the number 2531647, what will be the sum of the first and last digits in the number thus formed?**

Ans

✓ 1. 14

✗ 2. 12

✗ 3. 16

✗ 4. 18

Q.72 **The India Semiconductor Mission 2.0, announced in the Union Budget 2026–27, focuses on which area of computer-technology development?**

Ans

✗ 1. Rural broadband mapping and tariff regulation

✗ 2. Online gaming certification and user safety

✓ 3. Chip equipment, materials and advanced manufacturing

✗ 4. Digital payment authentication and settlement

Q.73 **A sound wave travels through seawater with a speed of 1500 m/s. If its wavelength is 2.5 m, what is its frequency?**

Ans

✗ 1. 150 Hz

✗ 2. 1200 Hz

✗ 3. 750 Hz

✓ 4. 600 Hz

Q.74 **In the Tamil Nadu Assembly election results of 2026, which party emerged as the single largest party?**

Ans

✓ 1. Tamilaga Vettri Kazhagam

✗ 2. Dravida Munnetra Kazhagam

✗ 3. Indian National Congress

✗ 4. All India Anna Dravida Munnetra Kazhagam

black book

Q.75 **Which of the following programmes was launched in October 1980 in place of the Food for Work Programme?**

Ans
- ✗ 1. Integrated Rural Development Programme
- ✗ 2. Development of Women and Children in Rural Areas
- ✗ 3. Training of Rural Youth for Self-Employment
- ✓ 4. National Rural Employment Programme

Q.76 **The 7-digit number 92A445B is divisible by 4. What is the minimum value of (A+B)?**

Ans
- ✗ 1. 6
- ✗ 2. 3
- ✓ 3. 2
- ✗ 4. 4

Q.77 **Which of the following is a primary function of the vertebral column in vertebrates?**

Ans
- ✗ 1. To secrete digestive fluids for breaking down food
- ✗ 2. To pump oxygenated blood throughout the body
- ✓ 3. To protect the spinal cord of the nervous system
- ✗ 4. To filter toxic nitrogenous wastes from blood

Q.78 **If the Earth's atmosphere were absent, which of the following phenomena would NOT be observed?**

Ans
- ✗ 1. Phases of the Moon
- ✓ 2. Advance sunrise and delayed sunset
- ✗ 3. Occurrence of a solar eclipse
- ✗ 4. The Sun's daily motion

Q.79 **Bohr's postulates explain the stability of hydrogen but fail for multi-electron atoms mainly because:**

Ans
- ✗ 1. Electrons are assumed to have no mass in multi-electron atoms
- ✗ 2. Protons move rapidly in larger atoms, disturbing orbits
- ✓ 3. Electron-electron interactions are not considered in Bohr's model
- ✗ 4. Neutrons in the nucleus affect electron paths in Bohr's model

Q.80 **Keshav starts from point A and drives 7 km towards west. He then takes a left turn and drives 13 km. He takes a final left turn and drives 7 km and stops at point B. Pranay starts from point P, which is 10 km east of Point A, and drives 4 km towards east. He then takes a right turn and drives 13 km. He takes a final right turn and drives 2 km and stops at Point Q. What is the shortest distance between Point Q and Point B? (All turns are 90 degree turns only.)**

Ans
- ✓ 1. 12 km
- ✗ 2. 10 km
- ✗ 3. 13 km
- ✗ 4. 11 km

Q.81 **GH 9 is related to JG 28 in a certain way. In the same way, HH 13 is related to KG 32. To which of the given options is OP 23 related, following the same logic?**

Ans
- ✗ 1. SP 44
- ✗ 2. SO 38
- ✗ 3. RP 42
- ✓ 4. RO 42

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Q.82 **In a division problem, the divisor is 18 times the quotient and 9 times the remainder. If the remainder is 40, what is the dividend?**

Ans

✗ 1. 7238

✓ 2. 7240

✗ 3. 7237

✗ 4. 7244

Q.83 **Why do non-biodegradable pesticides undergo biological magnification in food chains?**

Ans

✗ 1. They evaporate rapidly into the atmosphere.

✗ 2. They dissolve completely in water.

✗ 3. They are destroyed during digestion.

✓ 4. They accumulate in organisms and are not broken easily.

Q.84 **What is the main role of tracheids and vessels in xylem tissue?**

Ans

✗ 1. They store carbohydrates for future use

✓ 2. They transport water and minerals upward

✗ 3. They provide only mechanical support to stems

✗ 4. They help in horizontal movement of food

Q.85 **Which statement about the products of a neutralisation reaction is correct?**

Ans

✗ 1. They are always carbon dioxide and water

✗ 2. They are always hydrogen gas and water

✗ 3. They are always oxygen and water

✓ 4. They are always a salt and water

Q.86 **Which of the following allotropes of carbon does not conduct electricity?**

Ans

✓ 1. Diamond

✗ 2. Charcoal

✗ 3. Graphite

✗ 4. Fullerene

Q.87 **A certain sum of money, when invested at simple interest, amounts to ₹1,750 in 2 years and ₹2,000 in 3 years. Find the rate of interest per annum, in %.**

Ans

✗ 1. 25

✗ 2. 10

✓ 3. 20

✗ 4. 50

Q.88 **A, B, U, V, Y, and Z each scored different marks. Only two people have scored between U and B. Only one person has scored more than A. Only three people have scored between A and U. Z has scored more than Y but less than V.**
How many people have scored less than A?

Ans

✗ 1. Two

✓ 2. Four

✗ 3. Three

✗ 4. One

Q.89 **According to the 2026 edition of the Henley Passport Index, which of the following countries had the world's most powerful passport with visa-free access to 192 destinations?**

Ans

✗ 1. South Korea

✓ 2. Singapore

✗ 3. Japan

✗ 4. United Arab Emirates

blackbook

Q.90 **The average marks obtained in mathematics by the students of a class was 77. The average marks obtained by the boys is 60% more than the average marks obtained by the girls. If the ratio of the number of boys to that of girls is 7 : 2, then the average marks obtained by the girls is:**

Ans

✗ 1. 52

✗ 2. 54

✗ 3. 47.6

✓ 4. 52.5

Q.91 **Which of the following is a disaster-related function of the Panchayat Samiti?**

Ans

✗ 1. Issuing insurance claims to affected families

✗ 2. Enforcing rehabilitation funds from central schemes

✓ 3. Providing relief during natural calamities

✗ 4. Coordinating judicial inquiry on disaster mismanagement

Q.92 **The current population of a town is 16,000. It increases by 40% in the first year and by 50% in the second year, but decreases by 35% in the third year. What is the population of the town at the end of the third year?**

Ans

✗ 1. 19,320

✓ 2. 21,840

✗ 3. 20,580

✗ 4. 23,100

Q.93 **The areas of three adjacent faces of a rectangular box (cuboid) are 120 square cm, 72 square cm, and 60 square cm. What is the volume of the box?**

Ans

✗ 1. 960 cubic cm

✗ 2. 840 cubic cm

✗ 3. 680 cubic cm

✓ 4. 720 cubic cm

Q.94 **Consider a circle C of radius 8 cm with centre at O. What is the difference in the area of the circle C and the area of the sector of C subtending an angle of 120° at O?**

Ans

✗ 1. $\frac{120\pi}{3}\ \text{cm}^2$

✗ 2. $\frac{124\pi}{3}\ \text{cm}^2$

✓ 3. $\frac{128\pi}{3}\ \text{cm}^2$

✗ 4. $\frac{125\pi}{3}\ \text{cm}^2$

Q.95 **An engineer tests a custom-built cart by loading it with 12 identical packages and releasing it on a smooth warehouse floor. If the cart, with the packages, accelerates at 0.5 meters per second squared when pushed with a total force of 36 newtons, What will be the new acceleration if the applied force is doubled while the mass remains unchanged?**

Ans

✓ 1. The acceleration would double compared to the initial value.

✗ 2. The acceleration would decrease by a fixed amount.

✗ 3. The acceleration would be halved compared to the initial value.

✗ 4. The acceleration would stay the same as the initial value.

Q.96 **What should come in place of '?' in the given series based on the English alphabetical order?**
IKN HJM GIL FHK ?

Ans
✗ 1. EHI
✗ 2. EHJ
✓ 3. EGJ
✗ 4. EGI

Q.97 **At the Asian Relay Championships 2026, India's women's team won gold with a season-best timing of 43.85 seconds. This performance came in which relay event?**

Ans
✗ 1. Mixed 4×400 m relay
✓ 2. Women's 4×100 m relay
✗ 3. Women's 4×200 m relay
✗ 4. Women's 4×400 m relay

Q.98 **Why does temperature increase with height in the stratosphere?**

Ans
✗ 1. The Earth's surface heats the layer directly
✗ 2. Vertical mixing of air increases heat
✗ 3. Water vapour condensation releases heat
✓ 4. Ozone absorbs UV rays and heats the layer

Q.99 **Which of the following best explains why a sodium atom forms a positive ion when it reacts with chlorine?**

Ans
✗ 1. A sodium atom retains all its electrons to remain electrically neutral.
✓ 2. A sodium atom loses one electron to achieve a stable electronic configuration.
✗ 3. A sodium atom shares electrons equally with chlorine to form a bond.
✗ 4. A sodium atom gains one electron to complete its outer shell.

Q.100 **In a row of 48 students facing North, Madhu is 22nd from the left end. If Suresh is 25th to the right of Madhu, what is Suresh's position from the right end of the line?**

Ans
✓ 1. 2nd
✗ 2. 1st
✗ 3. 4th
✗ 4. 3rd

"

Blackbook

रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 04/2026 - जेई, डीएमएस, सीएमए - CEN - 04/2026 - JE, DMS, CMA

Test Date	28/10/2026
Test Time	9:00 AM - 10:30 AM
Subject / Exam Group	RRB JE DMS CMA CBT I

*** 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 JE DMS CMA CBT I**

Q.1 **Which Article provides the 'Duty of the Union to Protect States' against external aggression and internal disturbance?**

Ans
✗ 1. Article 354
✗ 2. Article 360
✓ 3. Article 355
✗ 4. Article 365

Q.2 **Which of the following pairs correctly matches the element with its atomic symbol, based on the rules for writing symbols of atoms?**

Ans
✗ 1. Iron - Ir
✗ 2. Silver - Si
✓ 3. Sodium - Na
✗ 4. Potassium - Po

Q.3 **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	*	@	6	3	9	1	2	?	7	8
Code	B	H	Z	X	C	U	D	L	R	A

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

What is the code for the following group of number-symbols?
***@639**

Ans
✗ 1. BHZLC
✗ 2. DHZXC
✗ 3. BHUXC
✓ 4. CHZXB

Q.4 **A manufacturer fixes his selling price at 26% over the cost of production. If the cost of production goes up by 26%, and the manufacturer raises his selling price by 50%, find the profit percentage.**

Ans

✗ 1. 47%

✗ 2. 53%

✓ 3. 50%

✗ 4. 51%

Q.5 Find the value of $(\sin\theta + \operatorname{cosec}\theta)^2 + (\cos\theta + \sec\theta)^2 - \tan^2\theta - \cot^2\theta$.

Ans

✓ 1. 7

✗ 2. 6

✗ 3. 10

✗ 4. 0

Q.6 **A student strikes the same desk twice with a pencil—first gently and then with greater force. Which observation is correct?**

Ans

✗ 1. The gentle strike produces a louder sound because it lasts longer.

✗ 2. Both strikes produce the same loudness because the same pencil is used.

✗ 3. The loudness depends only on the thickness of the desk.

✓ 4. The harder strike produces a louder sound because it creates vibrations of greater amplitude.

Q.7 **The price (per litre) of petrol increases by 75%. By what percentage should its consumption be changed so that the total expenditure on petrol increases by only 61%?**

Ans

✗ 1. Increase by 18%

✓ 2. Decrease by 8%

✗ 3. Decrease by 18%

✗ 4. Increase by 8%

Q.8 **Each of C, D, E, F, X, Y and Z has an exam on a different day of a week starting from Monday and ending on Sunday of the same week.**
Y has exam on Thursday, and F has exam on Saturday. C has exam immediately before Z.
E has exam on one of the days after X. D has exam immediately after Z.
How many people have exam(s) between E and D?

Ans

✗ 1. One

✗ 2. Four

✓ 3. Three

✗ 4. Two

Q.9 **Atoms of different elements with different atomic numbers, which have the same mass number, are known as:**

Ans

✗ 1. isotones

✗ 2. isomers

✗ 3. isotopes

✓ 4. isobars

Q.10 **If the direction of current in a vertical wire is upward, the direction of magnetic field lines around it (viewed from above) will be _____.**

Ans

✗ 1. Always downward

✗ 2. Always upward

✗ 3. Clockwise

✓ 4. Anti-clockwise

Q.11 **A product is sold at a profit of 131% on its cost price. If the cost price and selling price are interchanged, what percentage loss would be incurred on the transaction? Give your answer rounded off to two decimal places.**

Ans

✗ 1. 59.28%

✗ 2. 58.16%

✗ 3. 57.15%

✓ 4. 56.71%

Q.12 **One-fifth of a certain distance was covered at the speed of 85 km/h, one-third at 60 km/h, and the rest at the speed of 80 km/h. What is the average speed (in km/h) during the entire journey? (Correct up to two decimal places)**

Ans

✗ 1. 75.25

✓ 2. 72.77

✗ 3. 72.11

✗ 4. 70.51

Q.13 **A biologist uses a converging lens with a power of +5 D to focus sunlight onto a specimen. If the focal length of the lens changes due to heating and becomes 15 cm, what is the new power of the lens?**

Ans

✓ 1. +6.67 D

✗ 2. +5 D

✗ 3. +0.15 D

✗ 4. +1.5 D

Q.14 **In 1969, which taxonomist developed the five kingdom model to classify living organisms?**

Ans

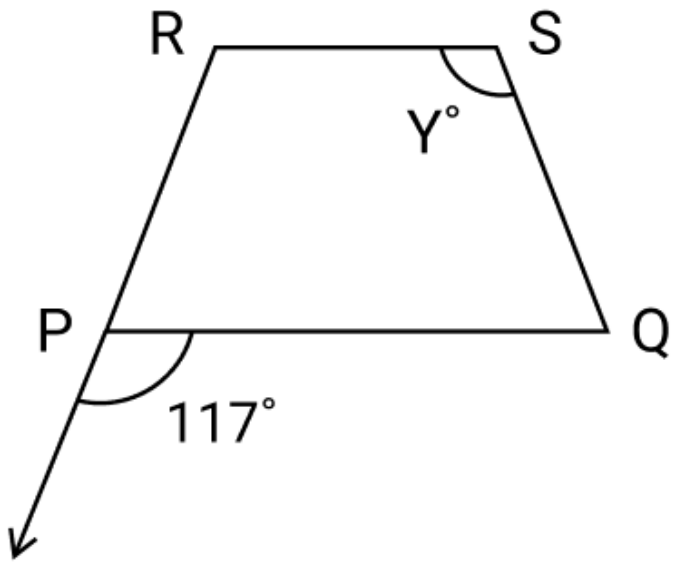
✗ 1. Aristotle

✗ 2. Carl Linnaeus

✗ 3. Herbert F. Copeland

✓ 4. Robert H. Whittaker

Q.15 **In the given figure, PQ ∥ RS. Find the value of Y.**



Ans

✗ 1. 117

✓ 2. 63

✗ 3. 93

✗ 4. 27

Black

Q.16 **Which of the following authorities is responsible for removing encroachments from public spaces within a village jurisdiction in India?**

Ans

✗ 1. Gram Nyayalayas

✗ 2. Taluka Magistrate

✗ 3. Police Department

✓ 4. Gram Panchayat

Q.17 **A portable camping lantern operates with a built-in battery delivering a constant voltage. When a user switches from the 'dim' to the 'bright' setting, the lantern's bulb receives more power. Assuming the battery voltage remains unchanged, which change in the lantern's circuitry most directly explains the increased brightness?**

Ans

✗ 1. The voltage supplied by the battery is increased, keeping resistance constant

✗ 2. The current through the bulb is decreased, with resistance unchanged

✓ 3. The resistance in the bulb circuit is decreased, increasing current

✗ 4. The resistance in the bulb circuit is increased, reducing current

Q.18 **The Nagara style of Hindu temple architecture, marked by a curvilinear shikhara, is primarily associated with which region of India?**

Ans

✓ 1. North India

✗ 2. South India

✗ 3. Central Deccan only

✗ 4. Northeast India

Q.19 **The sum of the areas of two circles which are touching externally is 130π sq.cm. If the distance between their centers is 14 cm, then the radius of the smaller circle is:**

Ans

✓ 1. 3 cm

✗ 2. 9 cm

✗ 3. 5 cm

✗ 4. 11 cm

Q.20 Find the value of $[(98 \div 14) \times \{(76 \div 4) + (12 \div 6) \times (7 - 4)\}]$.

Ans

✓ 1. 175

✗ 2. 707

✗ 3. 73

✗ 4. 693

Q.21 **In January 2026, the PARAM Rudra supercomputer was inaugurated at IIT Bombay. Under which mission was this facility developed and deployed?**

Ans

✗ 1. National Quantum Mission

✗ 2. India Semiconductor Mission

✗ 3. National Blockchain Framework

✓ 4. National Supercomputing Mission

Q.22 **What should come in place of the question mark (?) in the given series?**

9 17 30 60 95 147 ?

Ans

✓ 1. 204

✗ 2. 209

✗ 3. 213

✗ 4. 205

black book

Q.23 **At the Asian U20 Athletics Championships 2026, Pooja Singh broke a 14-year-old national record by clearing 1.93 m. In which event did she achieve this?**

Ans

✗ 1. Women's triple jump

✓ 2. Women's high jump

✗ 3. Women's pole vault

✗ 4. Women's long jump

Q.24 **R, S, T, U, G, H, and I are sitting around a circular table facing the centre of the table. H sits fourth to the right of U. Only two people sit between I and S when counted from the left of I. R sits third to the left of T. G is an immediate neighbor of T and S. How many people are between H and G when counted from the left of G?**

Ans

✓ 1. Four

✗ 2. One

✗ 3. Three

✗ 4. Two

Q.25 **Akshat invested ₹39600 at 10% per annum for 1 year at compound interest, compounded half-yearly. The amount received by him is:**

Ans

✗ 1. ₹44618

✗ 2. ₹43488

✗ 3. ₹43063

✓ 4. ₹43659

Q.26 **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:
Five runners – Vihaan, Wamiqa, Xander, Yashika and Zoravar – finished a race. Who finished last?

Statements:
(I) There are exactly two runners between Xander and Zoravar.
(II) Wamiqa finished ahead of Vihaan, and Yashika finished ahead of Xander.

Ans

✗ 1. Data in statement I alone is sufficient to answer the question while data in statement II is not.

✗ 2. Data in statement II alone is sufficient to answer the question while data in statement I is not.

✓ 3. Data in both statements I and II together are NOT sufficient to answer the question.

✗ 4. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.

Q.27 **One pipe can fill the tank in 24 minutes while another pipe can empty the completely filled tank in 56 minutes. If both pipes are operated together on an empty tank, how long (in minutes) will it take to fill one-third of the tank?**

Ans

✗ 1. 15

✗ 2. 12

✓ 3. 14

✗ 4. 13

Q.28 **Simplify the following expression.**

$$3200 \div 16 \text{ of } \frac{1}{80} + \frac{15}{320} \times 6400 + [850 \div 17] \times 40$$

Ans

✗ 1. 17300

✗ 2. 16300

✓ 3. 18300

✗ 4. 19300

blackbook

Q.29 **A long, vertical metal pipe buried underground carries a steady electric current upward. A technician above ground holds a digital compass parallel to the pipe at a distance of 0.8 meters. Unexpectedly, the compass needle deflects eastward rather than aligning north. Which analysis best explains this observation?**

Ans

✗ 1. The compass is affected only by Earth's magnetic field, so the current in the pipe cannot explain the observed deflection.

✗ 2. The compass needle should point directly outward from the pipe, as magnetic fields radiate straight from current-carrying wires.

✓ 3. The magnetic field produced by the upward current flows horizontally, causing the compass needle to align tangentially to the pipe's magnetic field at that location.

✗ 4. The current must be alternating, not steady, for a compass to be influenced in this way above ground.

Q.30 **Each letter in the word PROVEN is changed to the letter immediately succeeding it in the English alphabetical order and then all the letters in the letter-cluster thus formed are arranged in the English alphabetical order. Which of the following letters will be second from the right in the new letter-cluster thus formed?**

Ans

✓ 1. S

✗ 2. O

✗ 3. P

✗ 4. Q

Q.31 **Chetan starts from point A and drives 27 km towards West. He then takes a left turn and drives 16 km. He takes a final left turn and drives 32 km and stops at point B. Mohan starts from point P, which is 56 km East of Point A, and drives 21 km towards West. He then takes a left turn and drives 16 km. He takes a final right turn and drives 24 km and stops at Point Q. What is the shortest distance between Point Q and Point B? (All turns are 90-degree turns only.)**

Ans

✗ 1. 8 km

✓ 2. 6 km

✗ 3. 2 km

✗ 4. 4 km

Q.32 **Two friends, P and Q, started a business with initial capital contributions of ₹386 and ₹178, respectively. At the end of the year, the business made a profit of ₹56,400. Find the share of P (in ₹) in the profit.**

Ans

✗ 1. 38,450

✗ 2. 38,500

✗ 3. 38,700

✓ 4. 38,600

Q.33 **Five aqueous solutions have pH values 1, 4, 7, 9 and 11. Which of the following arrangements correctly represents the increasing order of hydrogen ion (H^+) concentration?**

Ans

✗ 1. 1 < 4 < 7 < 9 < 11

✓ 2. 11 < 9 < 7 < 4 < 1

✗ 3. 4 < 1 < 7 < 9 < 11

✗ 4. 7 < 9 < 11 < 4 < 1

Q.34 **Divide ₹9100 into three parts in such a way that half of the first part, one-fourth of the second part and one-eighth of the third part are equal. Find the first part (in ₹).**

Ans

✗ 1. 1600

✓ 2. 1300

✗ 3. 1400

✗ 4. 1200

Q.35 **Which statement best describes the calculation of the molecular mass of a compound?**

Ans

✗ 1. It is found by counting only the unique atomic masses in the molecule.

✗ 2. It is found by subtracting the smallest atomic mass from the largest in the molecule.

✓ 3. It is found by adding the atomic masses of all atoms present in the molecule.

✗ 4. It is found by using the highest atomic mass among the atoms in the molecule.

Q.36 **Solve the following system, and find the values of x, y, and z.**

x + y + z = 12
x − 3y − z = 18
x − y − z = 10

Ans

✗ 1. x= 11, y = 4, z = 5

✓ 2. x= 11, y = −4, z = 5

✗ 3. x= 10, y = −4, z = 5

✗ 4. x= 11, y = −4, z = 6

Q.37 **I is the brother of Z. C is the sister of A. Y is the son of A. A is the wife of Z. How is I related to Y?**

Ans

✓ 1. Father's brother

✗ 2. Father's father

✗ 3. Son

✗ 4. Father

Q.38 **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	6	8	1	9	7	3	#	@	5	%
Code	L	R	G	M	W	X	K	Q	E	N

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

What is the code for the following group of number-symbols?
68197

Ans

✗ 1. LRGMW

✓ 2. LRRMW

✗ 3. LRGKW

✗ 4. LXGMW

Q.39 **In the context of nervous tissue, what is the primary function of neurons?**

Ans

✗ 1. Neurons produce hormones for the body

✗ 2. Neurons store energy for the brain

✗ 3. Neurons generate force for movement

✓ 4. Neurons receive and transmit messages

Q.40 **An open rectangular box (without a lid) is made of wood 1 cm thick. Its external dimensions are 20 cm long, 15 cm wide, and 10 cm high. Find the volume of the wood used in making the box.**

Ans

✓ 1. 894 cm^3

✗ 2. 900 cm^3

✗ 3. 856 cm^3

✗ 4. 800 cm^3

blackbook

Q.41 **Which statement about the role of glands in the male reproductive system is CORRECT?**

Ans

✗ 1. They are responsible for sperm production

✓ 2. They add fluids that nourish the sperm

✗ 3. They store the genetic material of sperm

✗ 4. They control the temperature of the testes

Q.42 **If 40% of a number is added to 120, then the result is the same number. 70% of the same number is:**

Ans

✓ 1. 140

✗ 2. 160

✗ 3. 180

✗ 4. 120

Q.43 If the mean of the following data is 50, then what is the value of x?

Class	30-40	40-50	50-60	60-70	70-80
Frequency	47	19	21	13	X

Ans

✓ 1. 20

✗ 2. 14

✗ 3. 37

✗ 4. 45

Q.44 **A ball is tied to a string and swung in a horizontal circle at constant speed. What would happen if the string suddenly breaks?**

Ans

✗ 1. The ball will spiral inward toward the center of the circle.

✓ 2. The ball will move in a straight line tangential to the circle at the breaking point.

✗ 3. The ball will continue to move in a circular path for a short time.

✗ 4. The ball will move outward away from the center of the circle.

Q.45 ABCD is a parallelogram, $\angle A = (3x + 5)^\circ$ and $\angle C = (2x + 12)^\circ$. Fin

Ans

✗ 1. 87°

✗ 2. 128°

✗ 3. 95°

✓ 4. 154°

Q.46 **A, B, U, V, Y, and Z each scored different marks. Only A has scored more than B. Only three people have scored between Z and A. U has scored less than Y but more than V. How many people have scored between V and B?**

Ans

✗ 1. Two

✗ 2. One

✓ 3. Three

✗ 4. Four

Q.47 **What should come in place of '?' in the given series based on the English alphabetical order?**
LFI KEH JDG ICF ?

Ans

✗ 1. HBF

✓ 2. HBE

✗ 3. HCF

✗ 4. HCE

black

Q.48 **Excessive input of nutrients such as nitrates and phosphates into a water body, resulting in algal bloom and depletion of dissolved oxygen, is termed as_____.**

Ans

✗ 1. Acidification

✗ 2. Biomagnification

✗ 3. Desertification

✓ 4. Eutrophication

Q.49 **Select the pair that follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.**

DTP : ARS
GPN : DNQ

Ans

✓ 1. EYQ : BWT

✗ 2. FJU : CHW

✗ 3. NQQ : KNR

✗ 4. NIR : KGT

Q.50 **Which of the following Middle Eastern countries entered into a bilateral investment agreement with India that came into force in July 2026, to create a secure and modern legal framework for cross-border investments?**

Ans

✓ 1. State of Israel

✗ 2. State of Qatar

✗ 3. Kingdom of Saudi Arabia

✗ 4. United Arab Emirates

Q.51 **What is the main reason for the development of planetary wind patterns on Earth?**

Ans

✗ 1. Topography of mountain ranges

✗ 2. Gravitational pull of moon and sun

✓ 3. Uneven solar heating at different latitudes

✗ 4. Presence of large ocean bodies

Q.52 **Which process is responsible for causing muscle cramps during sudden physical activity due to a lack of oxygen?**

Ans

✗ 1. Photosynthesis in muscles

✗ 2. Aerobic respiration in muscles

✗ 3. Fermentation in yeast

✓ 4. Anaerobic respiration in muscles

Q.53 **The 1991 devaluation of the Indian rupee was primarily aimed at which of the following?**

Ans

✗ 1. Controlling inflation in the country through reduced money supply in the economy

✗ 2. Encouraging foreign investment by making import items relatively cheaper

✓ 3. Resolving the balance of payments crisis and increasing foreign exchange inflows

✗ 4. Limiting government borrowing from domestic banks to increase their efficiency

Q.54 **Which reaction represents the combination of a non-metal with oxygen?**

Ans

✗ 1. $2Na + Cl_2 \rightarrow 2NaCl$

✗ 2. $CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$

✓ 3. $C + O_2 \rightarrow CO_2$

✗ 4. $CaCO_3 \rightarrow CaO + CO_2$

blackbook

Q.55 **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 man out is not based on the number of consonants/vowels or their position in the letter cluster)

Ans
- ✗ 1. HK-OF
- ✓ 2. LO-SI
- ✗ 3. JM-QH
- ✗ 4. FI-MD

Q.56 **When was the Jawahar Rozgar Yojana launched in India by merging the National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP) to provide employment to the rural poor?**

Ans
- ✗ 1. 1979
- ✓ 2. 1989
- ✗ 3. 1969
- ✗ 4. 1999

Q.57 **According to the Cartesian sign convention for spherical lenses, what is the sign of the object distance for a real object placed in front of the lens?**

Ans
- ✗ 1. Object distance is zero
- ✗ 2. Object distance depends on the type of lens
- ✓ 3. Object distance is negative
- ✗ 4. Object distance is positive

Q.58 **Which of the following statements explains how genetic variation produced by meiosis helps some individuals survive?**

Ans
- ✗ 1. Survival is determined only by the original genetic code, not variations
- ✗ 2. All animals have identical traits, so all survive equally
- ✗ 3. Animals with more chromosomes are always better adapted
- ✓ 4. Meiotic variations provide traits better suited to new conditions

Q.59 **A dining table set is listed at ₹20,000. A store offers successive discounts of 10% and 20% on this price. What is the final price the customer pays after both discounts are applied?**

Ans
- ✗ 1. ₹16,000
- ✓ 2. ₹14,400
- ✗ 3. ₹15,000
- ✗ 4. ₹12,000

Q.60 **The Great Indian Desert lies towards which margin of the Aravali Range?**

Ans
- ✓ 1. Western margin
- ✗ 2. Northern margin
- ✗ 3. Southern margin
- ✗ 4. Eastern margin

Q.61 **Which statement best explains how lymph returns excess tissue fluid to circulation?**

Ans
- ✗ 1. Lymph absorbs all plasma from the tissues to prevent swelling
- ✗ 2. Lymph releases red blood cells directly into tissue spaces
- ✗ 3. Lymph pumps fluid directly into the chambers of the heart
- ✓ 4. Lymph drains excess fluid from extracellular space back into the blood

blackbook

Q.62 **Why is sodium hydroxide widely used in manufacturing soaps and detergents industrially?**

Ans
- ✗ 1. It increases hardness of soap products
- ✓ 2. It reacts with fats forming soap and glycerol
- ✗ 3. It acts as bleaching agent during washing
- ✗ 4. It absorbs moisture from surrounding air

Q.63 **Refer to the following letter, symbol series and answer the question. Counting to be done from left to right only.**
(Left) U % & T # £ C £ W N Q @ V T € G # * T $ U # (Right)
How many such letters are there each of which is immediately preceded by a letter and also immediately followed by a symbol?

Ans
- ✗ 1. 4
- ✗ 2. 5
- ✗ 3. 3
- ✓ 4. 2

Q.64 **What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?**
25 ÷ 3 + 36 x 4 - 7 = ?

Ans
- ✓ 1. 73
- ✗ 2. 71
- ✗ 3. 72
- ✗ 4. 74

Q.65 **India's first-ever open-sea Marine Fish Farming project was inaugurated from which of the following locations in January 2026?**

Ans
- ✓ 1. Andaman Sea
- ✗ 2. Lakshadweep Sea
- ✗ 3. Bay of Bengal
- ✗ 4. Arabian Sea

Q.66 **Which European power established its first factory at Masulipatnam in 1605 and later made Pulicat its headquarters in India?**

Ans
- ✗ 1. French
- ✓ 2. Dutch
- ✗ 3. Portuguese
- ✗ 4. English

Q.67 **Which region is recognised as India's oldest crude-petroleum-producing area, with Digboi as its earliest field?**

Ans
- ✗ 1. Rajasthan
- ✗ 2. Tamil Nadu
- ✓ 3. Assam
- ✗ 4. Gujarat

Q.68 **What should come in place of the question mark (?) in the given series?**

41 52 64 77 91 106 ?

Ans
- ✗ 1. 120
- ✗ 2. 125
- ✓ 3. 122
- ✗ 4. 118

blackbook

Q.69 **23 is related to 276 following a certain logic. Following the same logic, 20 is related to 240. To which of the following is 28 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 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.)

Ans
✗ 1. 348
✗ 2. 356
✓ 3. 336
✗ 4. 372

Q.70 **Find the angle of elevation of the sun, when the length of the shadow of a electric pole is same as the height of the pole.**

Ans
✗ 1. 60^{o}
✗ 2. 90^{o}
✓ 3. 45^{o}
✗ 4. 30^{o}

Q.71 **Refer to the following letter, symbol series and answer the question. Counting to be done from left to right only.**
(Left) L C * F A J / ^ Z O B O T M Q ? @ F C % T (Right)
How many such symbols are there each of which is immediately preceded by a symbol and also immediately followed by a letter?

Ans
✗ 1. Four
✓ 2. Two
✗ 3. One
✗ 4. Three

Q.72 **Select the pair that follows the same pattern as the one followed by the two pairs given below. Both pairs follow the same pattern.**

IQI : GSK
OMP : MOR

Ans
✗ 1. SMJ : QOK
✓ 2. DVR : BXT
✗ 3. GWS : EXU
✗ 4. LKC : JMD

Q.73 **A body is said to be in uniform motion when it:**

Ans
✓ 1. covers equal distances in equal intervals of time
✗ 2. covers unequal distances in equal intervals of time
✗ 3. speeds up and slows down repeatedly
✗ 4. changes its direction continuously

Q.74 **If a silver spoon turns black after several months of use, which chemical reaction has most likely occurred?**

Ans
✗ 1. Silver has reacted with moisture to form silver hydroxide.
✓ 2. Silver has reacted with sulphur in the air to form silver sulphide.
✗ 3. Silver has reacted with carbon dioxide to form silver carbonate.
✗ 4. Silver has reacted with oxygen to form silver oxide.

blackbook

Q.75 **A certain sum of money, when invested at simple interest, amounts to ₹1,750 in 2 years and ₹2,000 in 4 years. Find the rate of interest per annum, rounded off to two decimal places.**

Ans

✗ 1. 9.33%

✓ 2. 8.33%

✗ 3. 10.33%

✗ 4. 7.33%

Q.76 **168 is related to 19 following a certain logic. Following the same logic, 144 is related to 16. To which of the following is 128 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 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.)

Ans

✓ 1. 14

✗ 2. 19

✗ 3. 16

✗ 4. 21

Q.77 **What is the hardest natural substance known, which is also an allotrope of carbon?**

Ans

✗ 1. Charcoal

✗ 2. Graphite

✗ 3. Amorphous carbon

✓ 4. Diamond

Q.78 **What kind of tissue do plants lack for conducting immediate responses to stimuli?**

Ans

✗ 1. Meristematic tissue

✗ 2. Epidermal tissue

✗ 3. Vascular tissue

✓ 4. Nervous tissue

Q.79 The total surface area of a cylindrical solid is 792 cm^2. If its base diameter is 12 cm, t what is the height (in cm) of the cylindrical solid?

$\left(\text{Take } \pi = \frac{22}{7}\right)$

Ans

✗ 1. 12

✗ 2. 13

✓ 3. 15

✗ 4. 14

Q.80 **All 103 people are standing in a row facing North. Mr. Sonu is 7th from the right end while Mr. Pick is 77th from the left end. How many people are there between Mr. Sonu and Mr. Pick?**

Ans

✗ 1. 17

✗ 2. 12

✓ 3. 19

✗ 4. 15

Q.81 **If the total sum of 9 numbers is 81, what is their average?**

Ans

✗ 1. 10

✗ 2. 19

✓ 3. 9

✗ 4. 8

Black

Q.82 **Which of the following leads to genetic variation among siblings?**

Ans
- ✔ 1. The random assortment of chromosomes during meiosis
- ✘ 2. The perfect replication of DNA without errors
- ✘ 3. Changes directly caused by external environmental factors
- ✘ 4. The identical division of cells through mitosis

Q.83 **In a certain code language,**
'A @ B' means 'A is the brother 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 wife of B'.
Based on the above, how is P related to X if 'P ≥ Q ≠ V ^ W @ X'?

Ans
- ✘ 1. Sister
- ✔ 2. Brother's wife
- ✘ 3. Sister's daughter
- ✘ 4. Daughter

Q.84 **How does the muscular tongue contribute to the process of digestion in the mouth?**

Ans
- ✔ 1. By mixing food with saliva and aiding in chewing
- ✘ 2. By secreting digestive enzymes into the mouth
- ✘ 3. By producing mucus to protect the mouth lining
- ✘ 4. By transporting food directly to the stomach

Q.85 **What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?**
45 ÷ 5 - 290 x 5 + 31 =?

Ans
- ✘ 1. 260
- ✘ 2. 264
- ✔ 3. 252
- ✘ 4. 270

Q.86 **The extensive Northern Plains of India were primarily formed by the long-term depositional activities of which of the following river systems?**

Ans
- ✔ 1. Indus, Ganga, and Brahmaputra river systems
- ✘ 2. Sabarmati, Luni, and Mahi river systems
- ✘ 3. Godavari, Krishna, and Kaveri river systems
- ✘ 4. Narmada, Tapi, and Mahanadi river systems

Q.87 **A glowing electric bulb and an electric heater are kept inside two separate closed boxes. After some time, both boxes become warm. Which form of energy is finally transferred to the surroundings from both boxes?**

Ans
- ✔ 1. Thermal (heat) energy
- ✘ 2. Light energy
- ✘ 3. Electrical energy
- ✘ 4. Chemical energy

Q.88 If the variance of the data 6, 10, 14, 18, 22 is σ^2, what is the value of σ^2

Ans
- ✘ 1. 28
- ✘ 2. 36
- ✘ 3. 30
- ✔ 4. 32

Q.89 **Which expression gives the maximum number of electrons that can occupy the nth energy level of an atom, where n is the shell number?**

Ans

✗ 1. n^2

✗ 2. 2n

✗ 3. n

✓ 4. $2n^2$

Q.90 **The ratio of the length to the breadth of a rectangle is 3 : 2. If the length is 18 cm, find the area (in cm^2) of the rectangle.**

Ans

✗ 1. 210

✗ 2. 144

✗ 3. 108

✓ 4. 216

Q.91 **A force is applied at the free end of a hinged rod, causing it to rotate about the hinge. What can be said about the work done by the applied force?**

Ans

✗ 1. The work done is zero because the hinge remains stationary.

✗ 2. The work done depends only on the mass of the rod.

✗ 3. The work done is negative because the rod rotates.

✓ 4. The work done is positive because the point of application of the force is displaced.

Q.92 **What is the atomic mass of a carbon atom as commonly used in science?**

Ans

✗ 1. 16 u

✗ 2. 14 u

✓ 3. 12 u

✗ 4. 1 u

Q.93 If $y - 9 = 3\sqrt{7}$, then what is the value of $\sqrt{(y-1)} - \frac{1}{\sqrt{y-1}}$?

Ans

✓ 1. $\sqrt{14}$

✗ 2. 28

✗ 3. $2\sqrt{7}$

✗ 4. $7\sqrt{2}$

Q.94 **Each vowel in the word CYCLOTOMIES is changed to the letter immediately preceding it in the English alphabetical order AND each consonant is changed to the letter immediately following it in the English alphabetical order. How many letters will appear more than twice in the group of letters thus formed?**

Ans

✗ 1. One

✗ 2. Four

✓ 3. Two

✗ 4. Three

Q.95 **Which socio-religious reform movement was founded by Raja Rammohan Roy in 1828?**

Ans

✗ 1. Prarthana Samaj promoting devotion

✗ 2. Theosophical Society promoting spirituality

✗ 3. Arya Samaj promoting Vedic reforms

✓ 4. Brahmo Samaj promoting monotheism

blackbook

Q.96 **The average marks obtained in mathematics by the students of a class was 92. The average marks obtained by the boys is 20% more than the average marks obtained by the girls. If the ratio of the number of boys to that of girls is 5 : 2, then the average marks obtained by the girls is:**

Ans

✗ 1. 80.4

✗ 2. 82

✓ 3. 80.5

✗ 4. 77

Q.97 **A sum of ₹10,000 is lent at an annual rate of 8% for 6 months, where interest is compounded half-yearly. What is the difference between the compound interest and the simple interest earned at the end of 6 months?**

Ans

✗ 1. ₹4

✗ 2. ₹2

✓ 3. ₹0

✗ 4. ₹20

Q.98 **This question is based on the following words**
(left) SOB DIG FIN JOG (right)
How many letters are there between the second letter of the second word from the right and the third letter of the second word from the left as per English alphabetical order?

Ans

✗ 1. 2

✗ 2. 0

✓ 3. 1

✗ 4. 4

Q.99 **A man can row at 8 km/h in still water. The speed of the current is 3 km/h. To go upstream a certain distance, it takes 6 hours more than going than going the same distance downstream. Find the one way distance travelled.**

Ans

✗ 1. 50 km

✗ 2. 60 km

✗ 3. 45 km

✓ 4. 55 km

Q.100 $\text{Evaluate: } \left(\frac{18}{18} \div \frac{18}{9}\right) \div \left(\frac{2}{10} \times \frac{20}{6} + \frac{2}{6}\right) + \frac{9}{11} \div \frac{18}{14} \text{ of } \frac{14}{11}$

Ans

✗ 1. 9

✓ 2. 1

✗ 3. 4

✗ 4. 2

"

रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 04/2026 - जेई, डीएमएस, सीएमए - CEN - 04/2026 - JE, DMS, CMA

Test Date	28/10/2026
Test Time	12:45 PM - 2:15 PM
Subject / Exam Group	RRB JE DMS CMA CBT I

*** 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 JE DMS CMA CBT I**

Q.1 **Two runners start from the same point on a circular track at the same time, moving in the same direction at speeds of 15 km/h and 12.5 km/h. They meet again for the first time after 12 minutes. What is the length of the circular track in meters?**

Ans
- ✗ 1. 400
- ✗ 2. 550
- ✓ 3. 500
- ✗ 4. 450

Q.2 **Z is the sister of Y. Y is the brother of P. F is the father of C. C is the son of P. How is Z related to F?**

Ans
- ✗ 1. Daughter
- ✗ 2. Wife's mother
- ✓ 3. Wife's sister
- ✗ 4. Sister

Q.3 **Two wires made of the same material have lengths in the ratio 1 : 3 and areas of cross-section in the ratio 2 : 1. What is the ratio of their resistances?**

Ans
- ✗ 1. 1 : 2
- ✗ 2. 3 : 2
- ✗ 3. 3 : 6
- ✓ 4. 1 : 6

Q.4 **What is formed when an acid reacts with a base in a neutralisation reaction?**

Ans
- ✗ 1. Salt and gas
- ✗ 2. Only salt
- ✗ 3. Only water
- ✓ 4. Salt and water

Q.5 **Who among the following was the head of government that hosted the Indian Prime Minister during the first visit by an Indian Prime Minister to New Zealand in 40 years, held in Auckland in July 2026?**

Ans
- ✗ 1. Anthony Albanese
- ✗ 2. Winston Peters
- ✓ 3. Christopher Luxon
- ✗ 4. Christopher Hipkins

Q.6 **What primarily causes a valley breeze to move up a mountain slope during the day?**

Ans

✗ 1. The gravitational pull of the moon lifts the air up.

✗ 2. Cooler air from the slope sinks into the valley during the day.

✗ 3. The valley floor warms more quickly than the mountain slope.

✓ 4. The mountain slope warms more quickly than the valley floor.

Q.7 **The current population of a town is 18,625. It increases by 25% in the first year and by 24% in the second year, but decreases by 4% in the third year. What is the population of the town at the end of the third year?**

Ans

✓ 1. 27,714

✗ 2. 27,708

✗ 3. 27,724

✗ 4. 27,718

Q.8 **A cricket kit is listed for ₹8000. If a dealer receives a 12% scheme discount and an additional 8% cash discount on the reduced price, what is the amount the dealer pays?**

Ans

✗ 1. ₹7040.80

✗ 2. ₹6560.80

✓ 3. ₹6476.80

✗ 4. ₹7360.08

Q.9 **Refer to the following letter, symbol series and answer the question.**
(Left) C Ω H & G L Y X N Ω + * λ $ A % & $ P Q K (Right)
If all the letters are dropped from the series, which of the following will be seventh from the left?

Ans

✗ 1. λ

✓ 2. $

✗ 3. +

✗ 4. Ω

Q.10 **In a certain code language,**
A √ B means 'A is the father of B'
A ≠ B means 'A is the wife of B'
A ~ B means 'A is the son of B'
A ¥ B means 'A is the sister of B'

Based on the above, how is B related to L if 'B ≠ C ~ D √ K ¥ L'?

Ans

✗ 1. Wife's brother

✗ 2. Wife's sister

✓ 3. Brother's wife

✗ 4. Sister

Q.11 **How does internal fertilisation provide an advantage to reptiles, birds, and mammals?**

Ans

✗ 1. It scales up the total number of eggs produced at once

✗ 2. It speeds up the rate at which fertilization occurs during mating

✗ 3. It enables many diverse animal species to colonize aquatic environments

✓ 4. It increases the survival chances of young ones by protecting the embryo

Q.12 **The "Shuddhi Movement," aimed at reconversion to Hinduism, was a distinctive feature of which of the following organizations?**

Ans

✗ 1. Brahmo Samaj

✓ 2. Arya Samaj

✗ 3. Prarthana Samaj

✗ 4. Ramakrishna Mission

blackbook

Q.13 **Exercise MILAN 2026, the Indian Navy's premier multilateral maritime exercise, concluded with its closing ceremony aboard which vessel?**

Ans
- ✔ 1. INS Vikrant
- ✘ 2. INS Chennai
- ✘ 3. INS Kolkata
- ✘ 4. INS Vikramaditya

Q.14 **Naman starts from point A and drives 12 km towards West. He then takes a left turn and drives 14 km. He takes a final right turn and drives 16 km and stops at point B. Pawan starts from point P, which is 13 km East of Point A, and drives 13 km towards West. He then takes a left turn and drives 14 km. He takes a final right turn and drives 18 km and stops at Point Q. What is the shortest distance between Point Q and Point B? (All turns are 90-degree turns only.)**

Ans
- ✘ 1. 7 km
- ✘ 2. 8 km
- ✘ 3. 9 km
- ✔ 4. 10 km

Q.15 **Divide ₹35,700 into three parts in such a way that half of the first part, one-fourth of the second part and one-eighth of the third part are equal. Find the first part (in ₹).**

Ans
- ✘ 1. 5,000
- ✘ 2. 4,800
- ✘ 3. 5,400
- ✔ 4. 5,100

Q.16 **Which gland secretes the hormone responsible for regulating growth and development in children?**

Ans
- ✔ 1. Pituitary gland
- ✘ 2. Adrenal gland
- ✘ 3. Pineal gland
- ✘ 4. Pancreas

Q.17 **The average weight of three men, A, B, and C, is 70 kg. When another man, D, joins the group, the average weight becomes 68 kg. Later, person A is replaced by person E, whose weight is 5 kg more than D. After this replacement, the average weight of B, C, D, and E becomes 70 kg. What is the weight of A (in kg)?**

Ans
- ✘ 1. 61
- ✘ 2. 60
- ✔ 3. 59
- ✘ 4. 65

Q.18 **A sculpture is lifted above the roof of a building and then placed on the roof. Compared to its highest point during lifting, the sculpture's gravitational potential energy after installation is _____.**

Ans
- ✔ 1. Less
- ✘ 2. Independent of height
- ✘ 3. Greater
- ✘ 4. Equal

Q.19 **Find the simple interest (in ₹) on ₹6,000 at the rate of 5% per annum, deposited on 10 February 2024 and withdrawn on 11 April 2024. For calculating interest, exclude the date of deposit and include the date of withdrawal, using the actual number of days in the leap year 2024.**

Ans
- ✗ 1. 49
- ✗ 2. 48
- ✗ 3. 51
- ✓ 4. 50

Q.20 **Parenchyma cells mainly function in:**

Ans
- ✓ 1. Storage and photosynthesis
- ✗ 2. Providing mechanical strength
- ✗ 3. Protection against pathogens
- ✗ 4. Transport of water

Q.21 **Which of the following correctly represents the chemical formula for water?**

Ans
- ✗ 1. H_2O_2
- ✗ 2. HO_2
- ✗ 3. H_2
- ✓ 4. H_2O

Q.22 **A manufacturer wants to produce baking soda on a large scale. Which combination of reactants should be used in the laboratory process for its preparation?**

Ans
- ✗ 1. Sodium hydroxide and hydrochloric acid in solution
- ✗ 2. Calcium carbonate and hydrochloric acid in water
- ✓ 3. Sodium chloride, ammonia, and carbon dioxide in water
- ✗ 4. Sodium chloride and sulfuric acid in dry air

Q.23 **A delivery drone flies from a warehouse to a remote outpost along a straight path. Its velocity-time graph for the entire journey consists of three straight segments: first, it accelerates uniformly from rest to 12 meters per second over 6 seconds; then, it maintains this velocity for the next 8 seconds; finally, it decelerates uniformly to a stop in 4 seconds. What is the total distance covered by the drone during this trip?**

Ans
- ✗ 1. 96 meters
- ✗ 2. 108 meters
- ✗ 3. 120 meters
- ✓ 4. 156 meters

Q.24 **In a certain code,**
'fast train arrives' is coded as 'mz ca nh',
'fast moves car' is coded as 'xk za mz' and
'quickly train moves' is coded as 'ca cf za'.
(All the codes are two-letter codes only.)

What does the code 'nh' stand for?

Ans
- ✗ 1. fast
- ✗ 2. car
- ✓ 3. arrives
- ✗ 4. train

Q.25 **A store sells 3 kurtas at ₹500 each and 2 kurtas at ₹700 each. What is the weighted average price per kurta?**

Ans
- ✗ 1. ₹600
- ✗ 2. ₹550
- ✓ 3. ₹580
- ✗ 4. ₹620

Black book

Q.26 **The 73rd Constitutional Amendment Act in India relates to which of the following?**

Ans

✗ 1. President's Rule

✗ 2. Judicial Review

✓ 3. Panchayati Raj Institutions

✗ 4. Financial Emergency

Q.27 **Refer to the following letter, symbol series and answer the question. Counting to be done from left to right only.**
(Left) B M @ & X N X @ P + H K A D S S G B Q R $ (Right)
How many such symbols are there each of which is immediately preceded by a symbol and also immediately followed by a letter?

Ans

✗ 1. Three

✓ 2. One

✗ 3. Four

✗ 4. Two

Q.28 **Each vowel in the word DEFENDER is changed to the second letter following it in the English alphabetical order, and each consonant is changed to the second letter preceding it in the English alphabetical order. Which of the following letters will appear exactly twice in the group of letters thus formed?**

Ans

✗ 1. D

✗ 2. C

✓ 3. B

✗ 4. O

Q.29 **A coastal ecosystem is threatened by pollution that kills microscopic algae. What is the most likely impact on the ecosystem's stability?**

Ans

✗ 1. Enhanced pollination rates among coastal plants

✗ 2. Increase in soil fertility along the coastal area

✗ 3. Faster decomposition of dead organic matter

✓ 4. Reduced level of dissolved oxygen in marine water

Q.30 **A wholesaler sells a cooler to a retailer at a profit of 10%, and the retailer sells it to a customer at a profit of 12%. If the customer pays ₹15,400, what is the cost price (in ₹) of the cooler to the wholesaler?**

Ans

✗ 1. 14,000

✗ 2. 13,000

✗ 3. 13,500

✓ 4. 12,500

Q.31 **Which of the following was one of the measures adopted in India during the post-1991 period to reform public sector enterprises?**

Ans

✗ 1. Increase in subsidies to public sector enterprises

✗ 2. Expansion of workforce in public sector enterprises

✓ 3. Disinvestment of government equity

✗ 4. Nationalization of private companies

Q.32 **The Bhilai Steel Plant in Chhattisgarh, set up during the Second Five-Year Plan, was established with the technical and financial collaboration of which country?**

Ans

✗ 1. West Germany

✗ 2. Japan

✓ 3. Former Soviet Union

✗ 4. United Kingdom

blackbook

Q.33 **A gardener pulls a sack through 12 m with a force of 350 N acting at an angle of 40° to the horizontal. What is the work done by the gardener?**

Ans

✗ 1. 4200 J

✓ 2. 3220 J

✗ 3. 5000 J

✗ 4. 2690 J

Q.34 **The perimeter of a square is 44 m. Its area (in m^2) is:**

Ans

✗ 1. 132

✓ 2. 121

✗ 3. 124

✗ 4. 104

Q.35 **If cosec A + cot A = 3, find the value of sin A.**

Ans

✗ 1. $\frac{1}{5}$

✗ 2. $\frac{2}{5}$

✓ 3. $\frac{3}{5}$

✗ 4. $\frac{1}{3}$

Q.36 **Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on the first number results in the second number. Similarly, certain mathematical operation on the second number results in the third number and so on. Which of the given options follows the same set of operations as in the given sets? (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.)**
8 – 13 – 5 – 17; 6 – 11 – 3 – 11

Ans

✓ 1. 5 – 10 – 2 – 8

✗ 2. 4 – 9 – 17 – 53

✗ 3. 13 – 18 – 10 – 28

✗ 4. 17 – 12 – 4 – 14

Q.37 **Akshat invested ₹36,400 at 10% per annum for 1 year at compound interest, compounded half-yearly. The amount received by him is:**

Ans

✗ 1. ₹40,587

✓ 2. ₹40,131

✗ 3. ₹39,471

✗ 4. ₹40,873

Q.38 Simplify the following expression.

$48 \div 6 + 3^2 \times 4 - (15 - 9) \times 2$

Ans

✗ 1. 28

✓ 2. 32

✗ 3. 30

✗ 4. 26

Q.39 **Why do ionic compounds generally have high melting points?**

Ans

✗ 1. They contain double bonds between atoms

✗ 2. They have weak intermolecular forces

✗ 3. They consist of individual molecules

✓ 4. They have strong electrostatic forces between ions

Blackbook

Q.40 **Select the pair which follows the same pattern as that followed by the two set of pairs given below. Both pairs follow the same pattern.**

JJG : MHE
WTQ : ZRO

Ans
- ✗ 1. KLH : MJF
- ✗ 2. GHO : JGM
- ✓ 3. RVL : UTJ
- ✗ 4. JKJ : MMH

Q.41 **The narrow belt of pebbles deposited at the foot of the Shiwaliks, where descending streams disappear underground, is known as the _____.**

Ans
- ✓ 1. Bhabar
- ✗ 2. Terai
- ✗ 3. Bhangar
- ✗ 4. Khadar

Q.42 **Which statement best describes how litmus paper is used to distinguish between an acid and a base in a laboratory setting?**

Ans
- ✗ 1. Both acids and bases turn litmus paper both colors at the same time.
- ✗ 2. Acids turn red litmus paper blue, and bases turn blue litmus paper red.
- ✓ 3. Acids turn blue litmus paper red, and bases turn red litmus paper blue.
- ✗ 4. Acids and bases do not change the color of litmus paper.

Q.43 **An escalator lifts a 120 kg crate vertically through a height of 7.5 m in 28 s. Due to friction, the escalator delivers only 80% of the ideal output power. (Take g = 9.8 m/s^2.) What is the actual average output power of the escalator?**

Ans
- ✗ 1. 315 W
- ✗ 2. 336 W
- ✗ 3. 282 W
- ✓ 4. 252 W

Q.44 **Why do meristematic cells generally lack large vacuoles?**

Ans
- ✓ 1. They divide continuously for growth
- ✗ 2. They provide cell strength
- ✗ 3. They absorb minerals from soil
- ✗ 4. They store waste products

Q.45 **In the Northern Plains, a fertile tract of land lying between two interfluve rivers is locally termed as a _____.**

Ans
- ✗ 1. Terai
- ✓ 2. Doab
- ✗ 3. Khadar
- ✗ 4. Bhabar

Q.46 **Why does a rainbow display a sequence of colours in the sky after rain?**

Ans
- ✗ 1. Because the atmosphere absorbs all colours except seven.
- ✓ 2. Because sunlight is dispersed into its constituent colours by water droplets.
- ✗ 3. Because clouds emit different coloured light.
- ✗ 4. Because water droplets reflect only red light.

blackbook

Q.47 **The perimeters of two similar triangles ABC and PQR are 48 cm and 60 cm, respectively. If BC = 16 cm, then the side QR is:**

Ans
- ✗ 1. 60 cm
- ✓ 2. 20 cm
- ✗ 3. 80 cm
- ✗ 4. 40 cm

Q.48 **A pipe can fill a tank in 23 minutes, while another pipe can empty a full tank in 92 minutes. If both pipes are opened simultaneously when the tank is empty, how many minutes will it take to fill three-fourths of the tank?**

Ans
- ✗ 1. 19
- ✗ 2. 21
- ✗ 3. 25
- ✓ 4. 23

Q.49 **The powers and functions of Gram Sabha in India are provided by which of the following authority?**

Ans
- ✗ 1. The Constitution of India
- ✗ 2. Indian Parliament
- ✓ 3. The Legislature of the State
- ✗ 4. Rules made by the Gram Panchayat

Q.50 **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: Five friends – Qirat, Reyansh, Samika, Tushar and Urvika – are sitting around a circular table facing the centre. Who is sitting immediately to the right of Reyansh?

Statements:
(I) Qirat sits second to the right of Reyansh.
(II) Samika sits second to the left of Reyansh.

Ans
- ✗ 1. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.
- ✗ 2. Data in statement I alone is sufficient to answer the question while data in Statement II is not.
- ✓ 3. Data in both statements I and II together are NOT sufficient to answer the question.
- ✗ 4. Data in statement II alone is sufficient to answer the question while data in statement I is not.

Q.51 **Why are gymnosperms better suited to dry environments than bryophytes?**

Ans
- ✗ 1. They produce flowers
- ✗ 2. They need constant moisture
- ✓ 3. They have needle-like leaves
- ✗ 4. They lack true roots

Q.52 **Each of the digits in the number 13457829 is arranged in ascending order from left to right. The position of how many digits will remain unchanged as compared to that in the original number?**

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

Q.53 **Which of the following social reform movements, which gained momentum in the 19th century, was a direct response to the socio-cultural impact of British rule?**

Ans
- ✗ 1. The Quit India Movement
- ✓ 2. The Brahmo Samaj
- ✗ 3. The Khilafat Movement
- ✗ 4. The Non-Cooperation Movement

Q.54 **An oceanographic research vessel travels 84 km downstream on a river in 6 hours to reach a sampling station. On the return upstream journey, the vessel encounters an additional tidal current of 1 km/h flowing against its direction, causing the 84 km return trip to take 14 hours. What is the speed of the research vessel in still water?**

Ans
- ✓ 1. 10.5 km/h
- ✗ 2. 12 km/h
- ✗ 3. 11.5 km/h
- ✗ 4. 9.5 km/h

Q.55 **Find the mean deviation from the mean for the following data set.**

58, 65, 42, 66, 49, 59, 44, 45, 62, 60

Ans
- ✗ 1. 7.7
- ✗ 2. 7
- ✗ 3. 7.4
- ✓ 4. 8

Q.56 **The largest four-digit number which when divided by 11, 10 and 9 leaves remainder 8 in each case is:**

Ans
- ✗ 1. 9900
- ✗ 2. 9898
- ✓ 3. 9908
- ✗ 4. 9918

Q.57 **The 2030 Agenda for Sustainable Development, adopted by the United Nations General Assembly in 2015, consists of how many Sustainable Development Goals (SDGs)?**

Ans
- ✗ 1. 20
- ✗ 2. 8
- ✓ 3. 17
- ✗ 4. 15

Q.58 **A man sells a mobile phone for ₹660 and incurs a certain loss. If he had sold it for ₹14,400, his gain would have been twice the amount of the former loss. The cost price (in ₹) of the mobile phone is:**

Ans
- ✓ 1. 5,240
- ✗ 2. 5,440
- ✗ 3. 4,840
- ✗ 4. 5,040

Q.59 **What is the role of cytokinins in plants?**

Ans
- ✗ 1. They cause wilting
- ✓ 2. They promote cell division
- ✗ 3. They inhibit cell division
- ✗ 4. They inhibit root growth

blackbook

Q.60 If 'A' stands for '÷' , 'B' stands for 'x', 'C' stands for '+' and 'D' stands for '-' , what will come in place of the question mark '?' in the following equation?
124 A 4 C 32 B 6 D 27 =?

Ans
- ✔ 1. 196
- ✘ 2. 200
- ✘ 3. 195
- ✘ 4. 198

Q.61 Which of the following statements about bleaching powder is correct?
(I) It is prepared by passing chlorine gas over dry slaked lime.
(II) It is used for bleaching cotton and linen in textile industries.
(III) It is used to disinfect drinking water.
(IV) It is prepared by passing carbon dioxide over slaked lime.

Ans
- ✘ 1. Only I, III and IV
- ✘ 2. Only II, III and IV
- ✔ 3. Only I, II and III
- ✘ 4. Only I and II

Q.62 What is the main function of barrier contraceptive methods such as condoms and vaginal covers?

Ans
- ✘ 1. They alter hormone levels in the body
- ✘ 2. They change the uterus lining
- ✔ 3. They prevent sperm from reaching the egg
- ✘ 4. They kill all bacteria in the reproductive tract

Q.63 In March 2026, PM-STIAC discussed Advanced Manufacturing Systems as a priority area for India's technology ecosystem. What was the main focus of this discussion?

Ans
- ✘ 1. Creating export incentives for technology units
- ✘ 2. Limiting manufacturing research to defence labs
- ✔ 3. Strengthening India's advanced manufacturing capabilities
- ✘ 4. Expanding India's public-sector factory automation

Q.64 Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans
- ✘ 1. MQ-HK
- ✘ 2. KO-FI
- ✘ 3. OS-JM
- ✔ 4. QU-LP

Q.65 What is the area (in m^2) of a regular hexagon whose perimeter is 9 m? (Note: Rounded off to three decimal places.)

Ans
- ✔ 1. 5.846
- ✘ 2. 8.545
- ✘ 3. 210.447
- ✘ 4. 5.754

Q.66 Find the value of $\frac{2\cos^2 170^\circ - 2\sin^2 170^\circ}{\sin 140^\circ}$.

Ans
- ✘ 1. $\sin 70^\circ$
- ✘ 2. $\cos 70^\circ$
- ✘ 3. $\text{cosec } 70^\circ$
- ✔ 4. $\sec 70^\circ$

blackbook

Q.67 **Each vowel in the word EXTIRPATION is changed to the letter immediately following it in the English alphabetical order AND each consonant is changed to the second letter preceding it in the English alphabetical order. How many letters will appear exactly twice in the group of letters thus formed?**

Ans

✗ 1. Two

✗ 2. Four

✓ 3. Three

✗ 4. One

Q.68 **A borrower must pay off a principal of ₹10,000 through 7 equal monthly installments at 1.5% monthly compound interest. Which of the following is closest to the total amount paid after all installments?**

Ans

✓ 1. ₹10,600

✗ 2. ₹10,200

✗ 3. ₹11,200

✗ 4. ₹11,000

Q.69 **Which of the given letter-number clusters will replace the question mark (?) in the following series to make it logically complete?**

UAN −3 SEK 6 QIH −12 ? MQB −48

Ans

✗ 1. MME 22

✗ 2. ONE 24

✓ 3. OME 24

✗ 4. NNE 22

Q.70 **The difference between the present ages of Radha and Murari is 17 years. Five years ago from now, the sum of their ages was 19 years. If Radha is older than Murari, find Murari's present age (in years).**

Ans

✗ 1. 12

✓ 2. 6

✗ 3. 8

✗ 4. 5

Q.71 **Raman's monthly income is ₹71,800. He saves 7.5% of his income. If his income increases by 35% and his expenditure increases by 40%, then his savings will:**

Ans

✗ 1. Increase by ₹1,440

✗ 2. Decrease by ₹1,431

✓ 3. Decrease by ₹1,436

✗ 4. Increase by ₹1,434

Q.72 **Which of the following is an example of a solution?**

Ans

✗ 1. Rice mixed with pulses

✗ 2. Oil mixed with water

✓ 3. Sodium chloride dissolved in water

✗ 4. Sand mixed with iron filings

Q.73 **Which of the following natural phenomena involves refraction and dispersion of sunlight in a manner similar to a glass prism?**

Ans

✓ 1. Formation of a rainbow after rainfall

✗ 2. Formation of a shadow by an opaque object

✗ 3. Heating of a black surface in sunlight

✗ 4. Reflection of your face in a plane mirror

blackbook

Q.74 **A laboratory technician uses two wires, one made of nichrome and the other of silver, each having the same length and diameter. To reduce the resistance of the circuit and minimize heat loss under identical operating conditions, which material should be chosen for the replacement wire?**

Ans

✗ 1. Nichrome

✗ 2. The material with the shiniest color

✗ 3. Any material with the lowest melting point

✓ 4. Silver

Q.75 **For a grouped data with classes 0-10, 10-20, 20-30, 30-40 with frequencies 5, 8, 12, 7 respectively, what is the median?**

Ans

✗ 1. 24.5

✓ 2. 22.5

✗ 3. 23.5

✗ 4. 21.5

Q.76 **Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on the first number results in the second number. Similarly, certain mathematical operations on the second number result in the third number and so on. Which of the given options follows the same set of operations as in the 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.)**
146 – 120 – 90 – 75;
130 – 104 – 74 – 59

Ans

✗ 1. 124 – 98 – 78 – 64

✗ 2. 108 – 72 – 42 – 27

✗ 3. 142 – 116 – 86 – 61

✓ 4. 134 – 108 – 78 – 63

Q.77 **Seven people, D, E, F, G, U, V and W, are sitting in a row facing the North. F sits to the immediate left of W. Only three people sit between E and W. Only two people sit between D and F. G sits to the immediate right of U. No one sits to the right of D. How many people sit between V and G?**

Ans

✗ 1. Four

✗ 2. One

✗ 3. Three

✓ 4. Two

Q.78 **This question is based on the following words**
(left) WAG APE EEL PUP (right)
How many letters are there between the second letter of the first word from the right and the second letter of the first word from the left as per English alphabetical order?

Ans

✗ 1. 20

✓ 2. 19

✗ 3. 22

✗ 4. 18

Q.79 **A scientist observes a tiny positively charged center surrounded by mostly empty space in an atom. Based on Rutherford's model, what can be concluded?**

Ans

✗ 1. Atoms are solid spheres with no internal structure

✗ 2. Positive and negative charges are spread uniformly throughout the atom

✓ 3. The atom has a dense central nucleus with electrons orbiting around it

✗ 4. Electrons are embedded within the nucleus in the atom

black

Q.80 **In a precision manufacturing lab, a flat metallic strip carrying an electric current is positioned horizontally above a conveyor belt. A strong, uniform magnetic field is applied vertically upward through the strip. If the conveyor belt suddenly accelerates eastward while the current in the strip flows south, what best describes the resulting direction of the net force on the strip due to the magnetic field and the belt's motion?**

Ans

✗ 1. Opposite to the current's direction, toward the entrance of the lab

✓ 2. Perpendicular to both the magnetic field and current, directed toward the wall behind the belt

✗ 3. Parallel to the belt's motion, directed east

✗ 4. Downward, along the magnetic field direction

Q.81 **A solid sphere of radius 9 cm is melted and recast into two different shapes: a cone and a cylinder. The cone has a base radius of 6 cm, and the cylinder has a base radius 3 cm. If the height of the cone is twice the height of the cylinder, find the height of the cone. (Round off the answer to the nearest whole number of centimetres.)**

Ans

✗ 1. 63 cm

✗ 2. 54 cm

✗ 3. 65 cm

✓ 4. 59 cm

Q.82 **Select the pair that follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.**
EAP : GDM
HCN : JFK

Ans

✗ 1. DQJ : FSG

✓ 2. KDO : MGL

✗ 3. OPF : QSB

✗ 4. NIU : PLQ

Q.83 **Which statement best explains why plant tissues are generally not specialized for movement like animal tissues?**

Ans

✓ 1. Plants do not require locomotion.

✗ 2. Plant cells lack a cell membrane.

✗ 3. Plants have no permanent tissues.

✗ 4. Plant tissues cannot divide.

Q.84 **The angles of a quadrilateral ABCD are $\angle A = 3x+5°$, $\angle B = 4x-3°$, $\angle C = 2x+10°$, $\angle D = x+8°$. Find the measure of $\angle A$**

Ans

✓ 1. 107°

✗ 2. 110°

✗ 3. 127°

✗ 4. 117°

Q.85 **The 2026 Khelo India Winter Games were organised in two legs. The Ladakh leg mainly featured which category of sports?**

Ans

✗ 1. Water sports

✓ 2. Ice sports

✗ 3. Beach sports

✗ 4. Combat sports

Q.86 **Each of A, B, C, D, E, F and G has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. B has the exam on Friday. Only two people have the exam between E and B. Only four people have the exam between A and E. F has the exam immediately after C. G does not have the exam on Monday. How many people have the exam between G and D?**

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

Q.87 **X and Y invest in a business in the ratio 1 : 7. At the end of the year, 20% of the total profit is donated to charity, and the remaining profit is divided between X and Y in the ratio of their investments. If X receives ₹1,932 as his share, find the total profit (in ₹) earned by the business.**

Ans
- ✗ 1. 19,270
- ✓ 2. 19,320
- ✗ 3. 19,420
- ✗ 4. 19,170

Q.88 **If $-6p - 2q - r = -17$, $5p + q - 6r = 19$ and $-4p - 6q - 6r = -20$, then what is the value of $p + q + r^2$?**

Ans
- ✗ 1. 8
- ✗ 2. 5
- ✓ 3. 6
- ✗ 4. 4

Q.89 **Which statement best describes a reduction reaction in terms of electron movement?**

Ans
- ✗ 1. Reduction involves loss of electrons by a substance.
- ✗ 2. Reduction involves gain of protons by a substance.
- ✓ 3. Reduction involves gain of electrons by a substance.
- ✗ 4. Reduction involves no change in electron count.

Q.90 **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	8	2	@	?	%	&	5	!	1	*
Code	G	D	M	B	U	L	T	I	X	C

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

What is the code for the following group of number-symbols?
82@?%

Ans
- ✗ 1. ©DMBU
- ✗ 2. GDT©U
- ✓ 3. GDM©©
- ✗ 4. GLMB©

Q.91 **Madhubani painting, known for its double-outlined figures and dense floral borders, originated in which Indian state?**

Ans
- ✗ 1. Maharashtra
- ✗ 2. Rajasthan
- ✗ 3. Odisha
- ✓ 4. Bihar

black

Q.92 What should come in place of the question mark (?) in the given series?

5 8 28 53 95 142 ?

Ans
- ✔ 1. 206
- ✘ 2. 210
- ✘ 3. 194
- ✘ 4. 197

Q.93 Evaluate: 88 - {7 - (-48) ÷ (-16)}

Ans
- ✘ 1. 82
- ✔ 2. 84
- ✘ 3. 88
- ✘ 4. 86

Q.94 What is the area of a regular polygon that has 9 diagonals and a side length of 8 cm?

Ans
- ✘ 1. $64\sqrt{3}\ \text{cm}^2$
- ✘ 2. $84\sqrt{3}\ \text{cm}^2$
- ✔ 3. $96\sqrt{3}\ \text{cm}^2$
- ✘ 4. $72\sqrt{3}\ \text{cm}^2$

Q.95 B, C, V, W, Y and Z each scored different marks. Only two people have scored more than C. Only V has scored less than B. Y has scored more than W but less than Z. How many people have scored more than Y?

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

Q.96 Six friends, D, E, F, W, X and Z, live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on, till the topmost floor, which is numbered 6.
Only two people live between E and Z. X lives on floor number 1. Only two people live between F and D. Only one person lives between X and D. E lives above D.
How many people live between W and F?

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

Q.97 Which of the following government schemes encourages rural women to participate in micro-enterprises through Self Help Groups?

Ans
- ✘ 1. Stand-Up India Scheme
- ✔ 2. Deendayal Antyodaya Yojana - National Rural Livelihoods Mission
- ✘ 3. Deen Dayal Upadhyaya Gram Jyoti Yojana
- ✘ 4. Pradhan Mantri Employment Generation Programme

Q.98 Which of the following best describes how an ion is formed from a neutral atom?

Ans
- ✘ 1. By increasing or decreasing the number of protons in the nucleus
- ✘ 2. By splitting or fusing the atomic nucleus to alter its charge
- ✘ 3. By adding or removing neutrons from the nucleus
- ✔ 4. By gaining or losing electrons while the number of protons remains unchanged

blackbook

Q.99 **A ray of light passes through a rectangular glass slab and emerges into air. How is the emergent ray related to the incident ray?**

Ans

✗ 1. It follows the same path as the incident ray.

✗ 2. It is perpendicular to the incident ray.

✗ 3. It makes a different angle with the normal than the incident ray.

✓ 4. It is parallel to the incident ray but laterally displaced.

Q.100 **What should come in place of the question mark (?) in the given series?**

16 30 25 39 34 ?

Ans

✗ 1. 39

✗ 2. 45

✓ 3. 48

✗ 4. 29

"

Blackbook

रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 04/2026 - जेई, डीएमएस, सीएमए - CEN - 04/2026 - JE, DMS, CMA

Test Date	28/10/2026
Test Time	4:30 PM - 6:00 PM
Subject / Exam Group	RRB JE DMS CMA CBT I

*** 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 JE DMS CMA CBT I**

Q.1 **In a certain code language,**
'A ^ B' means 'A is the father of B',
'A ≠ B' means 'A is the son of B',
'A ≥ B' means 'A is the wife of B' and
'A @ B' means 'A is the brother of B'.
Based on the above, how is P related to X if 'P @ Q ≠ V ^ W ≥ X'?

Ans
✔ 1. Wife's brother
✘ 2. Brother
✘ 3. Daughter's husband
✘ 4. Husband

Q.2 **The WTO Agreement on Agriculture (AoA) posed a challenge to Indian food security primarily through restrictions on which category of domestic subsidy?**

Ans
✘ 1. Blue Box payments
✘ 2. Green Box subsidies
✔ 3. Amber Box support
✘ 4. Yellow Box assistance

Q.3 **A container is lifted vertically to a higher floor by an elevator. Which statement correctly describes the change in its gravitational potential energy?**

Ans
✘ 1. The potential energy increases only if the elevator accelerates throughout the entire ascent.
✘ 2. The potential energy remains unchanged because the container stops at the upper floor.
✘ 3. The potential energy depends on how quickly the elevator moves between the floors.
✔ 4. The potential energy increases by mgh, where m is the mass, g is the acceleration due to gravity, and h is the vertical height gained.

Q.4 **Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?**
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans
✘ 1. BAE
✘ 2. HGK
✔ 3. UUX
✘ 4. CBF

Q.5 If 40% of a number is added to 120, then the result is the same number. 60% of the same number is:

Ans
- ✗ 1. 160
- ✗ 2. 140
- ✓ 3. 120
- ✗ 4. 100

Q.6 A certain sum is invested at 20% per annum, compounded annually. If the compound interest earned specifically during the second year is ₹1,368, find the original sum invested.

Ans
- ✗ 1. ₹5,865
- ✗ 2. ₹6,670
- ✓ 3. ₹5,700
- ✗ 4. ₹4,825

Q.7 Each vowel in the word CARRYABLE is changed to the second letter following it in the English alphabetical order, and each consonant is changed to the second letter preceding it in the English alphabetical order. Which of the following letters will appear exactly twice in the group of letters thus formed?

Ans
- ✗ 1. Z
- ✓ 2. P
- ✗ 3. G
- ✗ 4. W

Q.8 If 'A' stands for '÷' , 'B' stands for 'x', 'C' stands for '+' and 'D' stands for '-' , what will come in place of the question mark '?' in the following equation?
77 A 11 C 17 B 13 D 72 =?

Ans
- ✗ 1. 160
- ✗ 2. 174
- ✓ 3. 156
- ✗ 4. 168

Q.9 Refer to the following number, symbol series and answer the question. Counting to be done from left to right only. All numbers are single-digit numbers.
(Left) 4 Ω 2 & 8 * 1 @ 7 $ 3 % 5 £ 9 & 6 # 2 (Right)
How many such symbols are there, each of which is immediately preceded by an odd number but not immediately followed by an odd number?

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

Q.10 A copper wire of length 2 m and cross-sectional area $1\times10^{-6}\ m^2$ has a resistance of 0.034 Ω. What is the resistivity of copper?

Ans
- ✗ 1. $1.07\times10^{-7}\ \Omega\cdot m$
- ✓ 2. $1.7\times10^{-8}\ \Omega\cdot m$
- ✗ 3. $6.8\times10^{-8}\ \Omega\cdot m$
- ✗ 4. $3.4\times10^{-8}\ \Omega\cdot m$

Q.11 If a car covers equal distances in equal intervals of time, its distance–time graph will show a _____.

Ans
- ✗ 1. curved line
- ✗ 2. zig-zag line
- ✓ 3. straight line inclined with time axis
- ✗ 4. horizontal straight line

Black

Q.12 **Two marbles rest on opposite sides of a rotating turntable in a science lab. The table is stopped abruptly. What best predicts the motion of the marbles immediately after the table halts?**

Ans

✗ 1. The marbles instantly change direction to match the table's new position.

✓ 2. The marbles continue moving tangentially due to their inertia.

✗ 3. The marbles immediately come to a complete stop because of friction.

✗ 4. The marbles roll directly toward the center of the table as soon as it stops.

Q.13 **The Chhau dance, which combines martial traditions with storytelling, is primarily associated with which of the following states?**

Ans

✗ 1. Punjab, Haryana, and Himachal Pradesh

✗ 2. Gujarat, Rajasthan, and Madhya Pradesh

✗ 3. Kerala, Karnataka, and Tamil Nadu

✓ 4. Odisha, West Bengal, and Jharkhand

Q.14 **Metallic spheres of radii 6 cm, 8 cm and 10 cm, respectively, are melted to form a single solid sphere. Find the surface area of the resulting sphere.**

Ans

✓ 1. $576\pi \text{ cm}^2$

✗ 2. $586\pi \text{ cm}^2$

✗ 3. $548\pi \text{ cm}^2$

✗ 4. $605\pi \text{ cm}^2$

Q.15 **Which of the following explains why muscles need nervous tissue to function?**

Ans

✗ 1. Muscles generate their own signals

✗ 2. Muscles coordinate responses alone

✓ 3. Muscles receive signals from nerves

✗ 4. Muscles control the brain's activity

Q.16 **Simplify the following expression using trigonometric formulas.**

$$\sin^2(\theta) + 2\sin(\theta)\cos(\theta) + \cos^2(\theta)$$

Ans

✗ 1. $\sin^2(\theta)$

✗ 2. $2\sin(\theta)$

✓ 3. $1 + \sin(2\theta)$

✗ 4. $1 + \cos(2\theta)$

Q.17 **A 500 kg rocket engine fires, providing a constant thrust force of 10,000 N for 10 s. If the initial velocity was 100 m s^{-1}, what is the final velocity attained? (Ignore gravity and air resistance).**

Ans

✗ 1. 250 m/s

✓ 2. 300 m/s

✗ 3. 200 m/s

✗ 4. 150 m/s

Q.18 **What happens to the inner lining of the uterus in human females if the egg is not fertilised?**

Ans

✗ 1. It is absorbed into the blood

✓ 2. It sheds and leaves the body

✗ 3. It turns into a zygote

✗ 4. It stays thick in the uterus

blackbook

Q.19 **JMRB is related to FINX in a certain way based on the English alphabetical order. In the same way, NYQT is related to JUMP. To which of the following is KSCL related, following the same logic?**

Ans

✔ 1. GOYH

✘ 2. IQAK

✘ 3. HPZI

✘ 4. FNXG

Q.20 **A cube of side 14 cm is cut into 8 smaller congruent cubes by planes through midpoints of edges. Find the total surface area (in cm^2) of all 8 small cubes.**

Ans

✔ 1. 2352

✘ 2. 2388

✘ 3. 2312

✘ 4. 2342

Q.21 **12 is related to 100 following a certain logic. Following the same logic, 17 is related to 145. To which of the given options is 24 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

✘ 1. 216

✘ 2. 224

✔ 3. 208

✘ 4. 232

Q.22 **Guru Shikhar, in the Mount Abu massif of Rajasthan, is the highest peak of which mountain range — regarded as the oldest fold-mountain system in India?**

Ans

✘ 1. Eastern Ghats

✘ 2. Satpura Range

✔ 3. Aravalli Range

✘ 4. Vindhya Range

Q.23 **In a school with two sections, A and B, of class X, the mean marks in science of class X A is 76 and that of class X B is 71. The variance of marks in science of X A and X B are 2.16 and 5.16, respectively. Find the variance of the science marks of the class X students of the school if X A comprises 22 students and X B has 28 students.**

Ans

✘ 1. 3.84

✘ 2. 7

✘ 3. 3.66

✔ 4. 10

Q.24 **Which type of water pollution results from excessive nitrates and phosphates stimulating aquatic plant overgrowth?**

Ans

✘ 1. Acidification

✘ 2. Sedimentation

✘ 3. Bioaccumulation

✔ 4. Eutrophication

Q.25 **A train accelerates uniformly from 10 meters per second to 30 meters per second in 4 seconds. What is its acceleration?**

Ans

✘ 1. 10 meters per second squared

✘ 2. 8 meters per second squared

✘ 3. 2 meters per second squared

✔ 4. 5 meters per second squared

blackbook

Q.26 **Which statement best describes the molecules of a compound?**

Ans

✔ 1. They contain different atoms chemically bonded together

✘ 2. They are made of only one type of atom bonded together.

✘ 3. They are a physical mixture of different atoms, not chemically bonded.

✘ 4. They always consist of exactly two atoms bonded together.

Q.27 **Why is carbon not used to extract highly reactive metals like magnesium and aluminum from their ores?**

Ans

✔ 1. These metals have more affinity for oxygen than carbon.

✘ 2. Carbon catches fire at high temperatures used for extraction.

✘ 3. Carbon reacts with these metals to form carbides.

✘ 4. These metals naturally occur in a free state and do not need extraction.

Q.28 **Girl A, weighing 400 N, climbs a height of 8 m in 20 s. Girl B, also weighing 400 N, takes 50 s to climb the same height. What is the difference in power expended by the two girls?**

Ans

✘ 1. 128 W

✘ 2. 160 W

✘ 3. 64 W

✔ 4. 96 W

Q.29 **During the Mahatma Gandhi-led phase of the freedom movement, which event triggered the withdrawal of the Non-Cooperation Movement in February 1922?**

Ans

✘ 1. Jallianwala Bagh Massacre

✔ 2. Chauri Chaura incident

✘ 3. Simon Commission's arrival

✘ 4. Salt March at Dandi

Q.30 **A large hall has bare walls and a hard ceiling. People find it difficult to hear speeches clearly because the sound persists for some time after the speaker stops. What is the most likely reason?**

Ans

✘ 1. The loudness of the speaker is too low.

✘ 2. The speed of sound decreases inside the hall.

✘ 3. Sound cannot travel properly inside enclosed spaces.

✔ 4. Multiple reflections of sound from hard surfaces cause reverberation.

Q.31 **The highest peak of the Eastern Ghats, known alternatively as Jindhagada or Arma Konda, is located in which state?**

Ans

✔ 1. Andhra Pradesh

✘ 2. Tamil Nadu

✘ 3. Odisha

✘ 4. Karnataka

Q.32 **The circumradius of an equilateral triangle is 26 cm. The inradius of the triangle is:**

Ans

✔ 1. 13 cm

✘ 2. 52 cm

✘ 3. 8 cm

✘ 4. 26 cm

black book

Q.33 **A school decides to host an awareness drive about the environmental impacts of changing attitudes toward disposables. Which combination of solutions should they promote to best address these issues?**

Ans

✗ 1. Encourage use of single-use plastics only

✓ 2. Promote reusable products and educate about waste segregation

✗ 3. Focus only on biodegradable packaging without awareness programs

✗ 4. Increase landfill space and ignore recycling

Q.34 **Six years ago, the ratio of the ages of Kunal and Sagar was 6:5. Four years hence, the ratio of their ages will be 11:10. The difference between their present ages (in years) is:**

Ans

✗ 1. 3

✓ 2. 2

✗ 3. 5

✗ 4. 4

Q.35 **R, S, T, U, G, H, and I are sitting around a circular table facing the centre of the table. G sits to the immediate right of U. Only three people sit between G and R when counted from the left of G. Only three people sit between U and I when counted from the right of I. S sits to the immediate right of H.**
How many people sit between U and H when counted from the right of H?

Ans

✗ 1. Four

✓ 2. One

✗ 3. Two

✗ 4. Three

Q.36 Find the value of $3[\sin^4 A - \cos^4 A + 1]\operatorname{cosec}^2 A + 2$.

Ans

✗ 1. 3

✗ 2. 5

✗ 3. 0

✓ 4. 8

Q.37 **In a rural region, an NGO conducted a survey across 30 villages to understand the monthly income distribution of households. The incomes are grouped into ranges as shown in the table below.**

Income Range (In ₹)	Number of Households
0 - 5,000	8
5,001 - 10,000	15
10,001 - 15,000	22
15,001 - 20,000	30
20,001 - 25,000	25
25,001 - 30,000	20
30,001 - 35,000	10

Calculate the modal income (to the nearest integral value of ₹).

Ans

✗ 1. ₹18,000

✗ 2. ₹18,559

✗ 3. ₹17,965

✓ 4. ₹18,077

Q.38 **What characteristic change allows litmus solution to identify whether an aqueous substance is acidic or basic?**

Ans

✗ 1. Gas evolution confirms acidic or basic nature

✗ 2. Temperature variation occurs during indicator reaction

✗ 3. Electrical conductivity increases in acidic solutions only

✓ 4. Colour changes differently in acidic and basic solutions

black

Q.39 **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)
4 - 14 - 24 - 34 ; 10 - 20 - 30 - 40

Ans
✗ 1. 5 - 10 - 20 - 30
✗ 2. 17 - 37 - 47 - 57
✓ 3. 32 - 42 - 52 - 62
✗ 4. 39 - 49 - 59 - 79

Q.40 **A double displacement reaction involves:**

Ans
✗ 1. Combination of identical atoms only
✗ 2. Loss of oxygen from substances
✗ 3. Formation of a single new compound
✓ 4. Exchange of ions between reactants

Q.41 **A tank can be filled by one pipe in 24 minutes, while another pipe can empty a full tank in 27 minutes. If both pipes are opened simultaneously when the tank is empty, how many minutes will it take to fill three-fourths of the tank?**

Ans
✗ 1. 153
✗ 2. 144
✗ 3. 171
✓ 4. 162

Q.42 **A principal of ₹10,000 is invested at an annual interest rate of 12% for 3 months, where interest is compounded monthly. What is the difference between the compound interest and simple interest earned in this period? (Rounded off to the nearest integer)**

Ans
✗ 1. ₹12
✗ 2. ₹30
✗ 3. ₹0
✓ 4. ₹3

Q.43 **B, C, V, W, Y, and Z each scored different marks. Only two people have scored less than Y. C has scored immediately more than B. Only two people have scored between B and W. Z has scored more than V. No one has scored less than W. How many people have scored more than V?**

Ans
✗ 1. One
✓ 2. Four
✗ 3. Three
✗ 4. Two

Q.44 **A student measures the focal length of a concave mirror using the distant object method but places the screen slightly away from the correct focus. What is the most likely effect on the image formed on the screen?**

Ans
✓ 1. The image will appear slightly blurred due to being out of focus.
✗ 2. The image will appear sharper and more distinct than at the focal plane.
✗ 3. The image will be laterally shifted with unchanged sharpness.
✗ 4. The image will be larger but retain perfect focus.

blackbook

Q.45 **Solve the following system of linear equations for x, y and z.**

x − 2y + 3z = 49; x − 6y − 4z = 8; 2x − 3y − z = 12.

Ans

✗ 1. (x, y, z) = (−10, 5, 7)

✗ 2. (x, y, z) = (10, 5, 7)

✓ 3. (x, y, z) = (10, 5, −7)

✗ 4. (x, y, z) = (10, −5, −7)

Q.46 **Refer to the following letter, symbol series and answer the question.**
(Left) M P V L V T # + $ Ω N U λ L M F * B V Y E (Right)
If all the symbols are dropped from the series, which of the following will be sixth from the right?

Ans

✓ 1. M

✗ 2. L

✗ 3. U

✗ 4. F

Q.47 **This question is based on the following words**
(left) HIP MIX UGH SET (right)
How many letters are there between the second letter of the first word from the right and the second letter of the first word from the left as per English alphabetical order?

Ans

✓ 1. 3

✗ 2. 4

✗ 3. 2

✗ 4. 6

Q.48 **Which statement correctly distinguishes mitosis from meiosis?**

Ans

✗ 1. Mitosis increases genetic diversity, while meiosis produces identical cells.

✗ 2. Mitosis creates four cells, while meiosis creates two cells.

✗ 3. Mitosis reduces chromosome number, while meiosis does not.

✓ 4. Mitosis produces identical cells, while meiosis creates cells with genetic variation.

Q.49 **The population of a district is 3,61,000, out of which 2,35,000 are males. 15% of the total population is literate. If 15% males are literate, then what percentage of females are literate?**

Ans

✗ 1. 12%

✗ 2. 20%

✗ 3. 8%

✓ 4. 15%

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

Ans

✓ 1. 6

✗ 2. 9

✗ 3. 7

✗ 4. 5

Q.51 **AB is parallel to CD. A transversal PQ intersects AB and CD at E and F, respectively, and ∠PEB = 47°. G is a point between AB and CD such that ∠BEG = 22° and ∠GFE = 21°. What is the measure of ∠EGF?**

Ans

✗ 1. 52°

✗ 2. 57°

✗ 3. 39°

✓ 4. 48°

blackbook

Q.52 **NOPS is related to RSTW in a certain way based on the English alphabetical order. In the same way, JKLO is related to NOPS. To which of the given options is DEFI related, following the same logic?**

Ans

✗ 1. HJIP

✓ 2. HIJM

✗ 3. HIIM

✗ 4. HHIM

Q.53 **Which of the following is the correct chemical formula of Ferric oxide?**

Ans

✗ 1. FeO

✗ 2. Fe_2O_4

✓ 3. Fe_2O_3

✗ 4. Fe_3O_2

Q.54 **Which of the following is a kharif crop, sown with the onset of the south-west monsoon and harvested in autumn?**

Ans

✗ 1. Gram

✗ 2. Mustard

✓ 3. Rice

✗ 4. Wheat

Q.55 **In a quiz audit, student's accuracy is defined as $E = \frac{\text{correct}}{\text{attempted}}$. The fraction E is in lowest terms, and its denominator is 2 more than the numerator. On the dashboard, the reciprocal metric is shown as $R = \frac{\text{attempted}}{\text{correct}}$. During correction, 3 invalid attempts are removed from the numerator of R (while its denominator remains unchanged). It is found that the adjusted reciprocal minus E equals $\frac{1}{15}$. Find the possible value of E.**

Ans

✗ 1. 0.57

✓ 2. 0.6

✗ 3. 0.83

✗ 4. 0.67

Q.56 **Find the average of first ten natural numbers (greater than 10) which when divided by 7 leaves remainder 6.**

Ans

✗ 1. 28.6

✗ 2. 33.7

✗ 3. 52.4

✓ 4. 44.5

Q.57 **What happens to the bud in a Hydra after it enlarges during budding?**

Ans

✗ 1. It merges back into the parent organism

✗ 2. It transforms into a spore to survive

✓ 3. It separates to live as a new organism

✗ 4. It remains attached to the main stem

Q.58 **A cap is sold after offering two successive discounts of 15% and 12% on the marked price. If the marked price of the cap is ₹500, what is its selling price?**

Ans

✗ 1. ₹395

✗ 2. ₹410

✗ 3. ₹352

✓ 4. ₹374

blackbook

Q.59 **Kaushal travelled for 6 hours and 45 minutes at a speed of 32 km/h. At what speed (in km/h) should he travel to cover the same distance in 3 hours?**

Ans

✗ 1. 70

✗ 2. 68

✗ 3. 74

✓ 4. 72

Q.60 **Which of the following is a diatomic molecule of a compound?**

Ans

✗ 1. H_2

✓ 2. HCl

✗ 3. O_2

✗ 4. Cl_2

Q.61 **Divide ₹26,600 into three parts in such a way that half of the first part, one-fourth of the second part and one-eighth of the third part are equal. Find the first part (in ₹).**

Ans

✗ 1. 3,900

✓ 2. 3,800

✗ 3. 3,600

✗ 4. 3,700

Q.62 **Find the simple interest (in ₹) on ₹6,000 at the rate of 5% per annum, deposited on 9 February 2024 and withdrawn on 10 April 2024. For calculating interest, exclude the date of deposit and include the date of withdrawal, using the actual number of days in the leap year 2024.**

Ans

✗ 1. 48

✗ 2. 51

✗ 3. 49

✓ 4. 50

Q.63 **Find the volume of a sphere of radius $6\sqrt{2}$ cm.**

Ans

✗ 1. $574\sqrt{2}\pi$ cm^3

✗ 2. $578\sqrt{2}\pi$ cm^3

✓ 3. $576\sqrt{2}\pi$ cm^3

✗ 4. $572\sqrt{2}\pi$ cm^3

Q.64 **If the sum of 8 numbers is 72, what is their average?**

Ans

✗ 1. 10

✓ 2. 9

✗ 3. 8

✗ 4. 12

Q.65 **At the Khelo India Winter Games 2026, in which event did Udreka Singh of Madhya Pradesh win the gold medal?**

Ans

✗ 1. Snowboarding

✗ 2. Alpine Skiing

✗ 3. Figure Skating

✓ 4. Ice Skating – Long Track 500m

Q.66 **Sudha starts from point A and drives 5 km towards East. He then takes a right turn and drives 22 km. He takes a final left turn and drives 4 km and stops at point B. Naman starts from point P, which is 42 km East of Point A, and drives 8 km towards West. He then takes a left turn and drives 22 km. He takes a final right turn and drives 9 km and stops at Point Q. What is the shortest distance between Point Q and Point B? (All turns are 90-degree turns only.)**

Ans
- ✔ 1. 16 km
- ✘ 2. 14 km
- ✘ 3. 15 km
- ✘ 4. 17 km

Q.67 **The symbol for the element with 3 protons and 4 neutrons is:**

Ans
- ✘ 1. C
- ✘ 2. Be
- ✘ 3. B
- ✔ 4. Li

Q.68 **What is the value of $(81)^{\frac{3}{4}}$?**

Ans
- ✘ 1. 9
- ✘ 2. 81
- ✘ 3. 3
- ✔ 4. 27

Q.69 **In November 2025, the Prime Minister of India launched several cutting-edge innovations at the Emerging Science, Technology & Innovation Conclave (ESTIC) 2025. Which of the following was the world's first humanised CAR-T cell therapy launched by the PM?**

Ans
- ✔ 1. NexCAR19
- ✘ 2. T-CellX
- ✘ 3. ImmunoCAR
- ✘ 4. CARStriker

Q.70 **All 99 people are standing in a row facing North. Mr. Sonu is 6th from the left end while Mr. Pick is 67th from the right end. How many people are there between Mr. Sonu and Mr. Pick?**

Ans
- ✔ 1. 26
- ✘ 2. 29
- ✘ 3. 23
- ✘ 4. 27

Q.71 **G is the father of O. O is the brother of T. R is the father of S. S is the son of T. How is G related to S?**

Ans
- ✘ 1. Mother's brother
- ✘ 2. Son
- ✘ 3. Father
- ✔ 4. Mother's father

Q.72 **If the ratio of two numbers is 6 : 7, and their HCF is 8, then their LCM is:**

Ans
- ✔ 1. 336
- ✘ 2. 392
- ✘ 3. 224
- ✘ 4. 280

blackbook

Q.73 What happens to the speed of sound in a medium when its temperature is increased?

Ans

✗ 1. It decreases

✗ 2. It remains the same

✗ 3. It first decreases, then increases

✓ 4. It increases

Q.74 The radius of a circle is 13 cm and the length of one of its chords is 2

Ans

✗ 1. 8.7 cm

✗ 2. 7.2 cm

✓ 3. 6.8 cm

✗ 4. 5.4 cm

Q.75 A researcher observes organisms growing on decaying wood in a moist forest. They lack chlorophyll and reproduce by spores. To which group do these organisms belong?

Ans

✓ 1. Fungi

✗ 2. Bacteria

✗ 3. Plants

✗ 4. Protozoa

Q.76 Which Vietnamese resort island in the Gulf of Thailand gained international news coverage in July 2026 due to a major maritime tourist safety and emergency response event?

Ans

✗ 1. Bali Island

✓ 2. Phu Quoc Island

✗ 3. Cebu Island

✗ 4. Penang Island

Q.77 A and B invest in a business in the ratio 3 : 8. At the end of the year, 20% of the total profit is donated to charity, and the remaining profit is divided between A and B in the ratio of their investments. If A receives ₹2028 as his share, find the total profit (in ₹) earned by the business.

Ans

✗ 1. 9345

✓ 2. 9295

✗ 3. 9245

✗ 4. 9145

Q.78 In which year was the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) launched by the Indian government to focus on the development of basic infrastructure in the selected cities and towns?

Ans

✗ 1. 2021

✗ 2. 2018

✓ 3. 2015

✗ 4. 2024

Q.79 What was the "Swadeshi" movement's central idea in its early phase (pre-1905)?

Ans

✓ 1. Protection of indigenous industries

✗ 2. Boycott of all British goods

✗ 3. Demand for complete independence

✗ 4. Religious revivalism

blackbook

Q.80 **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, D, G, I, K and T, each having a different height, which stick is the shortest?

Statements:
(I) I is taller than only two sticks. D is shorter than I and G is shorter than D.
(II) K is taller than T.

Ans
✗ 1. Data in both statements I and II together are NOT sufficient to answer the question.
✗ 2. Data in statement II alone is sufficient to answer the question while data in statement I is not.
✗ 3. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.
✓ 4. Data in statement I alone is sufficient to answer the question while data in statement II is not.

Q.81 **Each of the digits in the number 15326748 is arranged in ascending order from left to right. The position of how many digits will remain unchanged as compared to that in the original number?**

Ans
✗ 1. Two
✗ 2. One
✗ 3. None
✓ 4. Three

Q.82 **A factory wants to prevent corrosion of iron pipes exposed to moist air. Which approach would be most effective?**

Ans
✗ 1. Painting the pipes with a nonmetal-based paint
✗ 2. Keeping the iron pipes uncoated to allow oxidation
✓ 3. Coating the iron pipes with zinc to prevent direct contact with air and moisture
✗ 4. Using copper pipes instead of iron ones

Q.83 **What should come in place of the question mark (?) in the given series?**

193 180 167 154 141 128 ?

Ans
✗ 1. 118
✗ 2. 111
✓ 3. 115
✗ 4. 113

Q.84 **In a certain code,**
'pen book diary' is coded as 'qt bx lm',
'diary scale eraser' is coded as 'np rw bx' and
'eraser pen marker' is coded as 'gv lm np'.
(All the codes are two-letter codes only.)
What is marker coded as?

Ans
✗ 1. rw
✗ 2. np
✗ 3. lm
✓ 4. gv

Q.85 **Which Constitutional Amendment made it obligatory for the President of India to act only on the advice of the Council of Ministers?**

Ans
✗ 1. 24th Amendment
✓ 2. 42nd Amendment
✗ 3. 49th Amendment
✗ 4. 52nd Amendment

blackbook

Q.86 **What should come in place of '?' in the given series?**

4 8 11 15 25 29 ?

Ans
- ✗ 1. 63
- ✗ 2. 56
- ✗ 3. 66
- ✓ 4. 53

Q.87 **A woman is experiencing difficulty in carrying a pregnancy to term due to weak muscular support for the developing foetus. Which organ is most likely involved?**

Ans
- ✗ 1. Vagina
- ✓ 2. Uterus
- ✗ 3. Cervix
- ✗ 4. Ovary

Q.88 **M, N, O, X, Y and Z 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 two people live between Y and O. Only N lives above X. M lives on an even numbered floor. Y lives on the lowermost floor.
How many people live between Z and N?

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

Q.89 **In a certain code,**
'rose lily lotus' is coded as 'rt ka mn',
'lotus jasmine tulip' is coded as 'pq dx rt' and
'tulip rose orchid' is coded as 'ka yz dx'.
(All the codes are two-letter codes only.)

What is orchid coded as?

Ans
- ✗ 1. pq
- ✓ 2. yz
- ✗ 3. ka
- ✗ 4. dx

Q.90 **In a 15-km race, Runner A and Runner B start simultaneously from the same point and run in the same direction. After running 6 km, A stops for 3 minutes due to a shoe issue, while B continues without stopping. Despite the delay, A still finishes the race 90 seconds ahead of B. If, instead, A gives B a head start of 1,200 metres and both runners run without stopping, A still finishes 40 seconds earlier. Assuming both runners always run at constant speeds, what is the minimum head start (in metres, rounded off to the nearest integer) that A must give B for the race to end in a tie?**

Ans
- ✗ 1. 1405 m
- ✓ 2. 1409 m
- ✗ 3. 1490 m
- ✗ 4. 1404 m

Q.91 **A mutation causes a plant cell to lose all functional plastids. What is the most likely consequence for the cell?**

Ans
- ✗ 1. The cell cannot regulate division
- ✗ 2. The cell cannot control water loss
- ✗ 3. The cell cannot synthesize proteins
- ✓ 4. The cell cannot synthesize food

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Q.92 **Which sequence correctly describes the path of an electrical impulse through a neuron?**

Ans
- ✔ 1. Dendrite to cell body to axon
- ✘ 2. Cell body to axon to dendrite
- ✘ 3. Axon to dendrite to cell body
- ✘ 4. Cell body to dendrite to axon

Q.93 **Which of the following regions receives the Sun's rays over the smallest area?**

Ans
- ✘ 1. Polar region
- ✘ 2. Northern region
- ✘ 3. Temperate region
- ✔ 4. Equatorial region

Q.94 **The population enumeration scheduled to be conducted in 2027 will be known as which of the following in the sequence of Indian censuses?**

Ans
- ✘ 1. 17th Census of India
- ✘ 2. 15th Census of India
- ✘ 3. 14th Census of India
- ✔ 4. 16th Census of India

Q.95 **A car dealer marks a car at ₹6,75,000. After offering a discount, the customer pays ₹6,07,500. What was the percentage discount offered?**

Ans
- ✘ 1. 8%
- ✔ 2. 10%
- ✘ 3. 12%
- ✘ 4. 15%

Q.96 **What should come in place of '?' in the given series based on the English alphabetical order?**
UMP TLO SKN RJM ?

Ans
- ✘ 1. QIK
- ✘ 2. QJK
- ✘ 3. QJL
- ✔ 4. QIL

Q.97 **Which article of the Indian Constitution gives Citizenship at the Commencement of the Constitution?**

Ans
- ✘ 1. Article 26
- ✘ 2. Article 6
- ✔ 3. Article 5
- ✘ 4. Article 16

Q.98 **The relative atomic mass of chlorine is 35.5, even though no atom of chlorine has this exact mass. Which of the following best explains this observation?**

Ans
- ✘ 1. The atomic mass of chlorine changes with temperature.
- ✘ 2. Chlorine atoms lose mass when forming compounds.
- ✔ 3. Chlorine atoms exist as a mixture of isotopes with different masses.
- ✘ 4. Chlorine atoms have fractional numbers of protons.

Q.99 **What does the reactivity series represent?**

Ans
- ✔ 1. Arrangement of metals in order of their reactivity
- ✘ 2. Arrangement of acids in order of their strength
- ✘ 3. Arrangement of salts in order of their solubility
- ✘ 4. Arrangement of gases in order of their density

Blackbook

Q.100 **Arvind bought an article for ₹x. He sold it to Biru at a loss of 16%. Biru spent ₹159 on its transportation and sold it to Minu at a profit of 56%. If Minu bought it for ₹1,755, then what is the value of x?**

Ans

✗ 1. 1,075

✗ 2. 1,100

✓ 3. 1,150

✗ 4. 1,125

"

Blackbook

रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 04/2026 - जेई, डीएमएस, सीएमए - CEN - 04/2026 - JE, DMS, CMA

Test Date	02/11/2026
Test Time	9:00 AM - 10:30 AM
Subject / Exam Group	RRB JE DMS CMA CBT I

*** 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 JE DMS CMA CBT I**

Q.1 **While drawing a ray diagram for a spherical mirror, a student first draws the line passing through the pole and the center of curvature. What is this line called?**

Ans
✔ 1. Principal axis
✘ 2. Normal
✘ 3. Focal plane
✘ 4. Incident ray

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 decide the appropriate answer.**

Question:
Among 5 sticks, L, H, O, A and F, each having a different height, which stick is the shortest?

Statements:
(I) F is taller than A.
(II) Only one stick is shorter than L. L is shorter than A but taller than H.

Ans
✘ 1. Data in statement I alone is sufficient to answer the question while data in statement II is not.
✔ 2. Data in statement II alone is sufficient to answer the question while data in statement I is not.
✘ 3. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.
✘ 4. Data in both statements I and II together are NOT sufficient to answer the question.

Q.3 **Which Article of the Indian Constitution specifically mandates reservation of seats for Scheduled Castes and Scheduled Tribes in Panchayats?**

Ans
✘ 1. Article 243-I
✔ 2. Article 243-D
✘ 3. Article 243-C
✘ 4. Article 243-G

Q.4 **N is the mother of H. H is the sister of P. D is the father of V. V is the husband of P. How is N related to D?**

Ans
✘ 1. Wife
✔ 2. Son's wife's mother
✘ 3. Daughter
✘ 4. Son's wife's sister

Q.5 **A body has a velocity of 5 m/s at t = 0 s. Its velocity-time graph is a straight line with a slope of 3 m/s². What will be its velocity after 8 s?**

Ans
- ✗ 1. 21 m/s
- ✗ 2. 19 m/s
- ✓ 3. 29 m/s
- ✗ 4. 34 m/s

Q.6 **What is the function of the pollen tube in the reproduction of flowering plants?**

Ans
- ✗ 1. It forms the fruit around the ovules
- ✗ 2. It disperses seeds away from the plant
- ✓ 3. It carries the male gamete to the ovule
- ✗ 4. It provides nutrients to the embryo

Q.7 **In the Union Budget 2026–27, which mission was announced to transform India's sports sector over the next decade?**

Ans
- ✓ 1. Khelo India Mission
- ✗ 2. Fit India Mission
- ✗ 3. Olympic India Mission
- ✗ 4. Sports Excellence Mission

Q.8 **B, C, V, W, Y, and Z each scored different marks. Only two people have scored between V and B. Only one person has scored more than Z. Only three people have scored between Z and V. C has scored more than Y but less than W. How many people have scored more than V?**

Ans
- ✓ 1. Five
- ✗ 2. Three
- ✗ 3. Four
- ✗ 4. Two

Q.9 **In February 2026, BharatGen was highlighted as India's government-supported sovereign Large Language Model initiative. Which model was described as its text foundation model in 22 scheduled Indian languages?**

Ans
- ✗ 1. AIRAWAT-2
- ✗ 2. MeghRaj-3
- ✓ 3. Param-2
- ✗ 4. AIKosh-1

Q.10 **Which statement best describes how the solubility of a solid solute in water changes when the temperature increases?**

Ans
- ✗ 1. The solubility of most solid solutes remains unchanged with temperature changes.
- ✓ 2. The solubility of most solid solutes increases as temperature increases.
- ✗ 3. The solubility of most solid solutes decreases as temperature increases.
- ✗ 4. The solubility of most solid solutes first increases then decreases with temperature.

Q.11 **Which of the following will turn blue litmus paper red?**
a) Hydrogen chloride gas
b) Hydrochloric acid
c) Sodium hydroxide solution

Ans
- ✗ 1. Only (c) and (a)
- ✗ 2. Only (b) and (c)
- ✗ 3. Only (a) and (b)
- ✓ 4. Only (b)

blackbook

Q.12 **Which of the following primary methods was used by the Moderates to achieve their goals?**

Ans

✗ 1. Violent revolution

✗ 2. Civil disobedience

✓ 3. Petitions, prayers, and memorandums

✗ 4. Non-cooperation with the government

Q.13 **How can you differentiate between uniform and non-uniform motion by observing the distance-time graph of an object?**

Ans

✗ 1. Both uniform and non-uniform motion always produce straight lines.

✗ 2. A curved line represents uniform motion, while a straight line represents non-uniform motion.

✓ 3. A straight line represents uniform motion, while a curved line generally represents non-uniform motion.

✗ 4. A horizontal line shows both uniform and non-uniform motion.

Q.14 **Two sirens produce sounds of different frequencies. One emits a low-frequency sound, while the other emits a high-frequency sound. Which siren will produce a higher pitch?**

Ans

✗ 1. The low-frequency siren, because it has a longer wavelength.

✗ 2. Both sirens produce the same pitch if their amplitudes are equal.

✓ 3. The high-frequency siren, because pitch depends on frequency.

✗ 4. The low-frequency siren, because it is louder.

Q.15 **A student places a 2 cm tall object 30 cm in front of a concave mirror with a focal length of 15 cm. If the image is formed on the same side as the object, what will be the magnification produced by the mirror?**

Ans

✗ 1. The magnification is 0.5, showing a diminished real image.

✗ 2. The magnification is 2, producing a virtual image twice the size of the object.

✓ 3. The magnification is -1, indicating an inverted image of the same size as the object.

✗ 4. The magnification is -2, indicating an inverted image twice the size of the object.

Q.16 **Tappa, a classical vocal form, is noted for which of the following?**

Ans

✗ 1. Slow devotional expression

✓ 2. Rapid melodic ornamentation

✗ 3. Long narrative compositions

✗ 4. Choral group performance

Q.17 **One pipe can fill the tank in 27 minutes while another pipe can empty the completely filled tank in 54 minutes. If both the pipes are operated together on an empty tank, how long (in minutes) will it take to fill one-third of the tank?**

Ans

✗ 1. 72

✓ 2. 18

✗ 3. 54

✗ 4. 36

Q.18 **What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?**
230 x 23 - 16 ÷ 13 + 23 =?

Ans

✗ 1. 185

✓ 2. 195

✗ 3. 170

✗ 4. 175

blackbook

Q.19 **A shopkeeper claims that he sells rock salt at ₹10 per kg, which also costs him ₹10 per kg. However, instead of giving 957 g, he gives only 638 g. What is his percentage profit?**

Ans

✗ 1. 48%

✗ 2. 51%

✗ 3. 47%

✓ 4. 50%

Q.20 **Suppose a student's final grade is determined based on the following weightage: Assignments – 10%, Mid-term exams – 15%, and Final exams – 75%. The student scored 85 in Assignments, 78 in Mid-terms, and 92 in the Final exam. What is the student's final grade?**

Ans

✗ 1. 78.5

✓ 2. 89.2

✗ 3. 69

✗ 4. 91.25

Q.21 **A business repays a compound interest loan via 10 equal installments. If the total amount paid is ₹1,05,000, what is the value of each installment?**

Ans

✗ 1. ₹11,000

✗ 2. ₹12,000

✗ 3. ₹9,500

✓ 4. ₹10,500

Q.22 **Which Constitutional Amendment Act in India made the Right to Education as a fundamental right for children aged 6 to 14 years?**

Ans

✓ 1. 86th Amendment

✗ 2. 61st Amendment

✗ 3. 97th Amendment

✗ 4. 44th Amendment

Q.23 **In a certain code language,**
'mango apple grape' is coded as 'pk rt hj',
'grape banana orange' is coded as 'cx wm rt' and
'orange mango guava' is coded as 'nq hj cx'.
(All the codes are two-letter codes only.)
What is guava coded as?

Ans

✗ 1. hj

✗ 2. wm

✓ 3. nq

✗ 4. cx

Q.24 **Rabi crops in India, which require cool weather during growth and warmer weather at the time of maturity, are typically sown in which period?**

Ans

✗ 1. August to September

✗ 2. June to July

✗ 3. March to April

✓ 4. October to December

Q.25 **A SONAR system sends an ultrasonic pulse toward an underwater object. Which condition would prevent the detection of a clear echo?**

Ans

✗ 1. The object is located underwater.

✗ 2. The speed of sound in water is high.

✓ 3. The object absorbs most of the sound energy instead of reflecting it.

✗ 4. The reflected sound returns to the detector.

blackbook

Q.26 **If the ratio of two numbers is 4 : 7, and their HCF is 34, then their LCM is:**

Ans

✗ 1. 816

✗ 2. 884

✗ 3. 984

✓ 4. 952

Q.27 **Alex starts from point A and drives 15 km towards West. He then takes a left turn and drives 17 km. He takes a final right turn and drives 6 km and stops at point B. Eric starts from point P, which is 14 km East of Point A, and drives 8 km towards West. He then takes a left turn and drives 17 km. He takes a final right turn and drives 15 km and stops at Point Q. What is the shortest distance between Point Q and Point B? (All turns are 90-degree turns only.)**

Ans

✗ 1. 13 km

✗ 2. 11 km

✓ 3. 12 km

✗ 4. 14 km

Q.28 **When looking at a nearby object, how does the human eye adjust for clear vision?**

Ans

✓ 1. The lens becomes thicker to increase its focal power

✗ 2. The cornea becomes flatter to focus more light

✗ 3. The iris expands to increase image clarity

✗ 4. The lens becomes thinner to decrease its focal power

Q.29 **A regular hexagon with side A units and a regular octagon with B units have same area. What is the ratio of the areas of a regular hexagon with side B units to a regular octagon with side A units?**

Ans

✓ 1. $27 : 16(3 + 2\sqrt{2})$

✗ 2. $27 : 8(5 + 5\sqrt{5})$

✗ 3. $27 : 16(2 + 3\sqrt{3})$

✗ 4. $27 : 8(2 + 3\sqrt{3})$

Q.30 **R,S,T,U,G,H and I are sitting around a circular table facing the centre of the table.**
H sits third to the left of T. Only one person sits between T and U when counted from the left of U. Only two people sit between I and S when counted from the right of S.G is an immediate neighbor of I.
Who sits third to the right of R?

Ans

✗ 1. S

✗ 2. I

✓ 3. H

✗ 4. U

Q.31 **In the sequence of colours formed by dispersion (VIBGYOR), the order is based on _____.**

Ans

✓ 1. Increasing wavelength

✗ 2. Increasing frequency

✗ 3. Randomly pattern

✗ 4. Decreasing wavelength

Q.32 **What should come in place of the question mark (?) in the given series?**

10 18 40 70 114 166 ?

Ans

✓ 1. 232

✗ 2. 262

✗ 3. 223

✗ 4. 226

Black

Q.33 **14 is related to 210 following a certain logic. Following the same logic, 18 is related to 270. To which of the following is 25 related to, 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
- ✔ 1. 375
- ✘ 2. 370
- ✘ 3. 380
- ✘ 4. 385

Q.34 **If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 2453617, what will be the difference of the digits which are third from the left and second from the right in the new number thus formed?**

Ans
- ✔ 1. 4
- ✘ 2. 5
- ✘ 3. 2
- ✘ 4. 3

Q.35 **Geological evidence such as marine fossil deposits found near Jaisalmer indicates that the Thar Desert region was once submerged under the sea during which geological era?**

Ans
- ✘ 1. Cenozoic era
- ✔ 2. Mesozoic era
- ✘ 3. Palaeozoic era
- ✘ 4. Precambrian era

Q.36 **In a certain code language,**
'A ^ B' means 'A is the father of B',
'A ≠ B' means 'A is the mother of B',
'A ≥ B' means 'A is the wife of B' and
'A @ B' means 'A is the brother of B'.
Based on the above, how is P related to X if 'P ≥ Q ^ V ≠ W @ X'?

Ans
- ✘ 1. Daughter
- ✔ 2. Mother's mother
- ✘ 3. Sister's daughter
- ✘ 4. Sister

Q.37 **MJHE is related to GDBY in a certain way based on the English alphabetical order. In the same way, GDBY is related to AXVS. To which of the following is YVTQ related to, following the same logic?**

Ans
- ✘ 1. SQMT
- ✘ 2. SOMK
- ✘ 3. SPMK
- ✔ 4. SPNK

Q.38 **The average marks obtained in mathematics by the students of a class was 96. The average marks obtained by the boys is 10% more than the average marks obtained by the girls. If the ratio of the number of boys to that of girls is 5 : 2, then the average marks obtained by the girls is:**

Ans
- ✘ 1. 89
- ✔ 2. 89.6
- ✘ 3. 93.4
- ✘ 4. 95

Q.39 **Riya has to travel 787 km to reach Varanasi in 19 hours. She travels at 43 km/h for the first 8 hours and then covers the next 123 km at 41 km/h. At what speed should she travel for the remaining distance to reach Varanasi in exactly 19 hours?**

Ans
- ✗ 1. 36 km/h
- ✗ 2. 44 km/h
- ✓ 3. 40 km/h
- ✗ 4. 32 km/h

Q.40 **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	%	*	1	?	@	3	$	5	4	8
Code	C	I	V	R	F		G	O	M	L	U

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

What is the code for the following group of number-symbols?
%*1?@

Ans
- ✗ 1. ©IVRF
- ✗ 2. CIGR©
- ✗ 3. CIV©F
- ✓ 4. CIV©©

Q.41 **Two friends, X and Y, started a business with initial capital contributions of ₹132 and ₹230, respectively. At the end of the year, the business earned a profit of ₹38,553. What is X's share of the profit?**

Ans
- ✗ 1. ₹14,088
- ✗ 2. ₹14,078
- ✓ 3. ₹14,058
- ✗ 4. ₹14,758

Q.42 **What is the area of an isosceles triangle whose equal sides are twice the length of the third side and whose perimeter is 80 cm?**

Ans
- ✗ 1. $56\sqrt{15}\ \text{cm}^2$
- ✗ 2. $52\sqrt{15}\ \text{cm}^2$
- ✗ 3. $60\sqrt{15}\ \text{cm}^2$
- ✓ 4. $64\sqrt{15}\ \text{cm}^2$

Q.43 **The Battle of Wandiwash in 1760 was decisive in ending the political ambitions of which European power in India?**

Ans
- ✗ 1. Spanish
- ✗ 2. Dutch
- ✓ 3. French
- ✗ 4. Portuguese

Q.44 **Divide ₹14,700 into three parts in such a way that half of the first part, one-fourth of the second part and one-eighth of the third part are equal. Find the first part (in ₹).**

Ans
- ✗ 1. 1900
- ✗ 2. 2300
- ✓ 3. 2100
- ✗ 4. 2200

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Q.45 **The Peninsular Plateau of India is primarily composed of which type of rock formations?**

Ans
- ✗ 1. Marine limestone beds
- ✗ 2. Recent sedimentary deposits
- ✗ 3. Fresh volcanic basalt sheets only
- ✓ 4. Ancient gneisses and granites

Q.46 **Each vowel in the word CYCLICALITY is changed to the second letter following it in the English alphabetical order AND each consonant is changed to the second letter preceding it in the English alphabetical order. Which of the following letters will appear more than twice in the group of letters thus formed?**

Ans
- ✗ 1. J
- ✗ 2. W
- ✓ 3. A
- ✗ 4. K

Q.47 **Which scheme provides financial assistance to landholding farmer families across India, subject to certain exclusion criteria, to enable them to take care of expenses related to agriculture, allied activities and domestic needs?**

Ans
- ✓ 1. Pradhan Mantri Kisan Samman Nidhi
- ✗ 2. Pradhan Mantri Fasal Bima Yojana
- ✗ 3. Pradhan Mantri Kisan Maan Dhan Yojana
- ✗ 4. Paramparagat Krishi Vikas Yojana

Q.48 **A manufacturer fixes his selling price at 5% over the cost of production. If the cost of production goes up by 60%, and the manufacturer raises his selling price by 60%, find the profit percentage.**

Ans
- ✗ 1. 6%
- ✓ 2. 5%
- ✗ 3. 4%
- ✗ 4. 3%

Q.49 **A pair of shoes marked at ₹3,000 is subject to two successive discounts of 10% and 15%. What is the final selling price of the shoes?**

Ans
- ✗ 1. ₹2,550
- ✗ 2. ₹2,250
- ✓ 3. ₹2,295
- ✗ 4. ₹2,100

Q.50 **What should come in place of '?' in the given series based on the English alphabetical order?**
KEG JDF ICE HBD ?

Ans
- ✗ 1. GAD
- ✗ 2. GBC
- ✓ 3. GAC
- ✗ 4. GBE

Q.51 **What should come in place of the question mark (?) in the given series?**

11 18 39 74 123 ?

Ans
- ✗ 1. 179
- ✓ 2. 186
- ✗ 3. 213
- ✗ 4. 193

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Q.52 **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.**

KCK : HEG
OIP : LKL

Ans
- ✗ 1. IFM : FII
- ✗ 2. SLN : PNK
- ✗ 3. TLL : QNG
- ✓ 4. RBQ : ODM

Q.53 **Refer to the following number, symbol series and answer the question. Counting to be done from left to right only. All numbers are single-digit numbers.**
(Left) 7 % 1 & 9 $ 4 Ω 3 @ 8 * 5 £ 6 & 2 # 9 (Right)
How many such symbols are there, each of which is immediately preceded by an odd number but not immediately followed by an even number?

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

Q.54 **Which form of solar energy supports photosynthesis on Earth?**

Ans
- ✗ 1. Gamma rays
- ✗ 2. Infrared
- ✗ 3. Ultraviolet
- ✓ 4. Visible light

Q.55 **Kaushal travelled for 15 hours and 6 minutes at a speed of 80 km/h. At what speed (in km/h) should he travel to cover the same distance in 8 hours?**

Ans
- ✓ 1. 151
- ✗ 2. 150
- ✗ 3. 149
- ✗ 4. 152

Q.56 **What do ovules become after fertilisation in flowering plants?**

Ans
- ✓ 1. Seeds
- ✗ 2. Zygote
- ✗ 3. Fruit
- ✗ 4. Pollen

Q.57 **After the death of its celebrated author in July 2026, which book by Shahrnush Parsipur became the focus of international attention?**

Ans
- ✗ 1. Woman at Point Zero
- ✗ 2. My Name is Red
- ✗ 3. The Bastard of Istanbul
- ✓ 4. Women Without Men

Q.58 **Which of the following chemical formulae correctly represents a compound containing two aluminum atoms, three sulfur atoms, and twelve oxygen atoms?**

Ans
- ✗ 1. $Al(SO_4)_2$
- ✗ 2. Al_2SO_4
- ✗ 3. $Al_3(SO_4)_2$
- ✓ 4. $Al_2(SO_4)_3$

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Q.59 **Virat invested ₹24,375 at 8% per annum for 1 year at compound interest, compounded half-yearly. The amount received by him is:**

Ans
- ✗ 1. ₹26,014
- ✓ 2. ₹26,364
- ✗ 3. ₹25,628
- ✗ 4. ₹26,519

Q.60 **The length and the breadth of a cuboid are increased by 50% and 20% respectively. If its height is decreased by 30%, then what will the percentage increase in the volume of the cuboid be?**

Ans
- ✗ 1. 40%
- ✗ 2. 36%
- ✓ 3. 26%
- ✗ 4. 30%

Q.61 **The sum of the squares of two consecutive even natural numbers is 3044. The sum of the numbers is:**

Ans
- ✓ 1. 78
- ✗ 2. 72
- ✗ 3. 60
- ✗ 4. 48

Q.62 **Which connective tissue at a joint is responsible for connecting bone to bone and restricting excessive movement, thus preventing dislocation?**

Ans
- ✗ 1. Tendon
- ✗ 2. Bone
- ✓ 3. Ligament
- ✗ 4. Cartilage

Q.63 **16 is related to 240 following a certain logic. Following the same logic, 21 is related to 420. To which of the following is 30 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 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.)

Ans
- ✗ 1. 812
- ✓ 2. 870
- ✗ 3. 892
- ✗ 4. 845

Q.64 **Which statement correctly demonstrates the Law of Constant Proportions when comparing two samples of water from different sources?**

Ans
- ✗ 1. The amount of hydrogen is always greater, but the ratio can change.
- ✗ 2. Each sample has a unique ratio of hydrogen to oxygen.
- ✓ 3. Both samples contain hydrogen and oxygen combined in the same mass ratio.
- ✗ 4. The samples may have different elements due to their sources.

Q.65 **If 40% of a number is added to 240, then the result is the same number. 30% of the same number is:**

Ans
- ✓ 1. 120
- ✗ 2. 100
- ✗ 3. 160
- ✗ 4. 140

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Q.66 **A toy store sells 20 cars at ₹100 each and 10 cars at ₹150 each. What is the weighted average price of the cars sold? (Rounded off to two decimal places)**

Ans

✗ 1. ₹125.33

✓ 2. ₹116.67

✗ 3. ₹120.44

✗ 4. ₹130.12

Q.67 **The cost of a washing machine is 60% less than the cost of a TV. If the cost of the washing machine increases by 34% and that of the TV decreases by 24%, then what is the percentage change in the total cost of 5 washing machines and 2 TVs?**

Ans

✗ 1. 8% increase

✓ 2. 5% increase

✗ 3. 5% decrease

✗ 4. 8% decrease

Q.68 **The base of a conical tent has a diameter of 76.8 m, and the height to its vertex is 11.2 m. What is the area of the canvas required to put up such a tent (in sq. m, round up to two decimal places)? (Take $\pi = \frac{22}{7}$ and round off your answer to two decimal places.)**

Ans

✗ 1. 3710.01

✓ 2. 4827.43

✗ 3. 4287.84

✗ 4. 3017.16

Q.69 **Why is the stigma of wind-pollinated plants like maize typically long and feathery?**

Ans

✗ 1. To protect pollen from environmental factors

✗ 2. To improve seed dispersal across distances

✓ 3. To effectively trap airborne pollen grains

✗ 4. To successfully attract insect pollinators

Q.70 **Which of the following choices represents the correct anatomical pathway of urine out of the human body?**

Ans

✗ 1. Kidney → Urethra → Urinary bladder → Ureter

✗ 2. Ureter → Kidney → Urinary bladder → Urethra

✓ 3. Kidney → Ureter → Urinary bladder → Urethra

✗ 4. Urinary bladder → Kidney → Ureter → Urethra

Q.71 Find the value of $\left[\frac{\text{cosec}A}{\text{cosec}A-1}+\frac{\text{cosec}A}{\text{cosec}A+1}\right]\times 3\tan A\ \text{cosec}A.$

Ans

✗ 1. 3 tanA

✗ 2. 3 secA

✓ 3. 6 $\sec^3 A$

✗ 4. 6 $\tan^2 A$

Q.72 **Why do ionic compounds conduct electricity in the molten state but not in the solid state?**

Ans

✓ 1. Because ions can move freely in the molten state

✗ 2. Because atoms rearrange in the molten state

✗ 3. Because electrons move freely in the molten state

✗ 4. Because molecules break down in the molten state

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Q.73 **Why are metals generally good conductors of heat and electricity?**

Ans

✗ 1. High melting point of metals

✗ 2. Strong ionic bonding in metals

✓ 3. Presence of free electrons in structure

✗ 4. High density of metal atoms

Q.74 **The 7-digit number 34A711B is divisible by 4. What is the minimum value of (A+B)?**

Ans

✓ 1. 2

✗ 2. 7

✗ 3. 3

✗ 4. 4

Q.75 **The main focus of the New Industrial Policy of 1991 was to _____.**

Ans

✗ 1. nationalize major industries

✗ 2. provide direct subsidies to all industries

✗ 3. increase import tariffs

✓ 4. liberalize the industrial licensing regime

Q.76 **Which process is commonly used to separate colloidal particles from a heterogeneous mixture by causing them to aggregate and settle?**

Ans

✗ 1. Distillation

✗ 2. Filtration

✓ 3. Coagulation

✗ 4. Chromatography

Q.77 **If the variance of the observations −10, −9, −8, −7, −6, −5, −4, −3, −2, −1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 is m and the variance of the observations 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 30 is n, then find the value of m + n (rounded off to one decimal place).**

Ans

✗ 1. 74.5

✓ 2. 73.3

✗ 3. 70.3

✗ 4. 72.5

Q.78 **The number 737937 is divisible by which of the following?**

Ans

✗ 1. 13

✓ 2. 3

✗ 3. 5

✗ 4. 10

Q.79 **What is likely to occur when a plant cell is placed in a solution where the solute concentration outside is greater than inside the cell?**

Ans

✗ 1. Water moves in, causing cell to swell

✗ 2. Solute enters, making cell expand

✓ 3. Water moves out, causing cell content to shrink

✗ 4. Solute leaves, making cell shrink

Q.80 **Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group?**
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans
- ✗ 1. IG - DB
- ✓ 2. HF - CB
- ✗ 3. VT - QO
- ✗ 4. KI - FD

Q.81 **If, $x + y + z = 7$**
$x - y + z = 5$
$x + y - z = 3$
What is the value of $x + 2y + 3z$?

Ans
- ✗ 1. 13
- ✗ 2. 11
- ✗ 3. 14
- ✓ 4. 12

Q.82 **The 7th edition of Exercise DUSTLIK in 2026 was conducted between India and which Central Asian country?**

Ans
- ✗ 1. Kazakhstan
- ✗ 2. Tajikistan
- ✓ 3. Uzbekistan
- ✗ 4. Kyrgyzstan

Q.83 **A package lands on a spring-loaded platform. Which pair of forces forms the action-reaction pair according to Newton's third law?**

Ans
- ✗ 1. The Earth pulls the package downward, and the platform pushes the package upward with equal force.
- ✗ 2. The package pushes downward on the platform, and gravity pulls the package downward.
- ✓ 3. The package pushes on the platform, and the platform pushes back on the package with equal force.
- ✗ 4. The platform pushes upward on the package, and gravity pulls the Earth downward.

Q.84 A quadrilateral has $PQ \parallel RS$ where as SP and RQ are non parallel side
If $PQ = 16$ cm and $MN = 20$ cm, then find SR (in cm).

Ans
- ✗ 1. 25
- ✗ 2. 22
- ✗ 3. 27
- ✓ 4. 24

Q.85 **The larger of two supplementary angles is 58° more than the smaller. The smaller angle (in degree) is:**

Ans
- ✗ 1. 65
- ✓ 2. 61
- ✗ 3. 66
- ✗ 4. 53

Q.86 **Why is the presence or absence of a notochord a significant criterion in animal classification?**

Ans
- ✗ 1. It regulates internal body temperature of animals
- ✓ 2. It helps to distinguish chordates from non-chordates
- ✗ 3. It acts as a primary food source for chordates
- ✗ 4. It functions as a core circulatory organ for chordates

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Q.87 **A teacher asks students to balance the equation: $Na + H_2O \rightarrow NaOH + H_2$. Which balanced form has equal numbers of atoms for each element?**

Ans

✔ 1. $2Na, 2H_2O, 2NaOH, 1H_2$

✘ 2. $1Na, 1H_2O, 1NaOH, 1H_2$

✘ 3. $2Na, 1H_2O, 2NaOH, 2H_2$

✘ 4. $2Na, 2H_2O, 1NaOH, 2H_2$

Q.88 **What characteristic of epithelial tissues explains their ability to prevent water loss in the outer body covering?**

Ans

✔ 1. Closely packed cells with minimal spaces

✘ 2. Cells bearing cilia on the surface

✘ 3. Cells specialized mainly for secretion

✘ 4. Cells arranged in a single layer

Q.89 **Refer to the following letter, symbol series and answer the question.**
(Left) & Ω + λ % * W P @ K δ E & P H G N & U F @ (Right)
If all the symbols are dropped from the series, which of the following will be fifth from the left?

Ans

✘ 1. E

✘ 2. W

✘ 3. K

✔ 4. P

Q.90 **Each vowel in the word BEAUTIFUL 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. Which of the following letters will appear exactly twice in the group of letters thus formed?**

Ans

✘ 1. S

✘ 2. E

✔ 3. V

✘ 4. J

Q.91 **Which of the following sequences correctly represents the route of blood through arteries, capillaries, and veins?**

Ans

✘ 1. Heart → capillaries → arteries → veins → heart

✘ 2. Heart → veins → capillaries → arteries → heart

✘ 3. Heart → veins → arteries → capillaries → heart

✔ 4. Heart → arteries → capillaries → veins → heart

Q.92 **Six friends, D, E, F, W, X and Z, live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on, till the topmost floor, which is numbered 6.**
No one lives above D. Only two people live between D and Z. Only two people live between E and X. X lives below Z but above F.
How many people live below W?

Ans

✘ 1. One

✔ 2. Three

✘ 3. Two

✘ 4. Four

Q.93 **Where did Rutherford conclude that the positive charge and mass of an atom are concentrated?**

Ans

✘ 1. In the electron cloud

✔ 2. In the nucleus

✘ 3. In the outer orbit

✘ 4. In the vacant space

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Q.94 **A certain sum of money, when invested at simple interest, amounts to ₹1,750 in 2 years and to ₹2,500 in 4 years. Find the rate of interest per annum, in %.**

Ans

✔ 1. 37.5

✘ 2. 50

✘ 3. 62.5

✘ 4. 25

Q.95 **Which of the following is an example of a one-step oxidation reaction?**

Ans

✔ 1. $C + O_2 \rightarrow CO_2$

✘ 2. $Zn + CuSO_4 \rightarrow ZnSO_4 + Cu$

✘ 3. $2H_2 + O_2 \rightarrow 2H_2O$

✘ 4. $2KBr + Cl_2 \rightarrow 2KCl + Br_2$

Q.96 **This question is based on the following words**
(left) KID NAP SOB LOP (right)
How many letters are there between the first letter of the second word from the right and the second letter of the first word from the left as per English alphabetical order?

Ans

✘ 1. 12

✔ 2. 9

✘ 3. 10

✘ 4. 8

Q.97 **As per the Air Quality Index (AQI) developed by the Central Pollution Control Board, how many air pollutants are considered for calculating the AQI value?**

Ans

✘ 1. Seven pollutants

✘ 2. Nine pollutants

✘ 3. Six pollutants

✔ 4. Eight pollutants

Q.98 **Which phenomenon is primarily responsible for the formation of a rainbow after rainfall?**

Ans

✔ 1. Dispersion of sunlight by water droplets due to refraction and internal reflection

✘ 2. Reflection of sunlight by the ground

✘ 3. Refraction of only one colour of light by raindrops

✘ 4. Total internal reflection of sunlight by clouds

Q.99 If $\sin\theta = \frac{3}{5}$ and θ is an acute angle, then what is the value of $\cos$

Ans

✘ 1. $\frac{3}{4}$

✔ 2. $\frac{4}{5}$

✘ 3. $\frac{1}{2}$

✘ 4. $\frac{5}{3}$

Q.100 **M, N, O, X, Y and Z 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.**
N lives on an even numbered floor but not on floor number 4. Only two people live between N and M. X lives on an odd numbered floor but not on the lowermost floor. Only two people live between X and O. Y lives immediately below X.
How many people live between Z and Y?

Ans

✗ 1. One

✗ 2. Three

✗ 3. Four

✓ 4. Two

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