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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/s^2. 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)

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

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.

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

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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

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

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. $Al_2(SO_4)_3$

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

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 π = $\frac{22}{7}$ 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

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

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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