



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 05/25 - जेई, डीएमएस, सीएमए - CEN - 05/25 - JE, DMS, CMA



Test Date	19/02/2026
Test Time	9:00 AM - 10:30 AM
Subject	RRB JE DMS CMA

* 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

Q.1 The base and the corresponding height of a parallelogram are 93 cm and 29 cm, respectively. The area of the parallelogram (in cm^2) is:

- Ans ☒ 1. 2701
☒ 2. 2697
☒ 3. 2714
☒ 4. 2696

Q.2 Simplify the following.

$$112 \div [16 \div 8 \times \{18 + 12 - (3 + 10 - (4 + 7))\}]$$

- Ans ☒ 1. 3
☒ 2. 4
☒ 3. 11
☒ 4. 2

Q.3 The quadratic equation whose roots are $\frac{1}{\sqrt{2}}$ and $\frac{1}{\sqrt{2}}$ is:

- Ans ☒ 1. $2x^2 - (2\sqrt{2})x + 1 = 0$
☒ 2. $3x^2 - (2\sqrt{2})x - 1 = 0$
☒ 3. $2x^2 - (4\sqrt{2})x - 1 = 0$
☒ 4. $2x^2 + (2\sqrt{5})x + 1 = 0$

Q.4 Sonora-64 and Lerma Rojo are high-yielding varieties (HYVs) of which crop introduced during the Green Revolution in India?

- Ans ☒ 1. Rice
☒ 2. Barley
☒ 3. Wheat
☒ 4. Maize

Q.5 When methane (CH_4) burns completely in the presence of sufficient oxygen, which products are formed?

- Ans**
- ☐ 1. Carbon dioxide and carbon
 - ☐ 2. Carbon and hydrogen
 - ☒ 3. Carbon dioxide and water
 - ☐ 4. Carbon monoxide and water

Q.6 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 carefully and decide the appropriate answer.

Five people, A, B, C, D and E, are sitting in a straight line facing north. Who sits to the immediate left of C?

I. B sits second from one of the extreme ends of the line. Only one person sits between B and C. D sits third to the right of C.

II. D sits to the immediate right of B. Only three people sit between D and A. E sits to the immediate right of C.

- Ans**
- ☐ 1. Data in statement I alone is sufficient to answer the question while data in statement II is not
 - ☐ 2. Data in both statements I and II together is NOT sufficient to answer the question
 - ☐ 3. Data in both statements I and II together (and not statement I alone or statement II alone) is 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.7 Which of the following is NOT true regarding the Poona Pact of 1932?

- Ans**
- ☐ 1. Seats reserved for depressed classes increased in the legislatures.
 - ☒ 2. Ambedkar refused to sign the pact.
 - ☐ 3. It was accepted by the government.
 - ☐ 4. It dropped the idea of separate electorates for depressed classes.

Q.8 How does the magnetic field strength at the center of a circular loop change if the current through the loop is doubled?

- Ans**
- ☒ 1. It becomes twice as large
 - ☐ 2. It becomes four times as large
 - ☐ 3. It becomes half as large
 - ☐ 4. It remains unchanged

Q.9 When two aqueous solutions react inside a sealed flask and form products, what happens to the total mass of the system?

- Ans**
- ☐ 1. It fluctuates during reaction
 - ☐ 2. It increases due to gas formation
 - ☐ 3. It decreases due to precipitation
 - ☒ 4. It remains unchanged throughout

Q.10 Which of the following metals is NOT refined by electrolytic refining?

- Ans**
- ☒ 1. sodium
 - ☐ 2. copper
 - ☐ 3. tin
 - ☐ 4. zinc

Q.11 LKLJ is related to GFGE in a certain way based on the English alphabetical order. In the same way, NMNL is related to IHIG. To which of the following is QPQO related, following the same logic?

- Ans**
- ☐ 1. LJKJ
 - ☒ 2. LKLJ
 - ☐ 3. LKKJ
 - ☐ 4. LLKQ

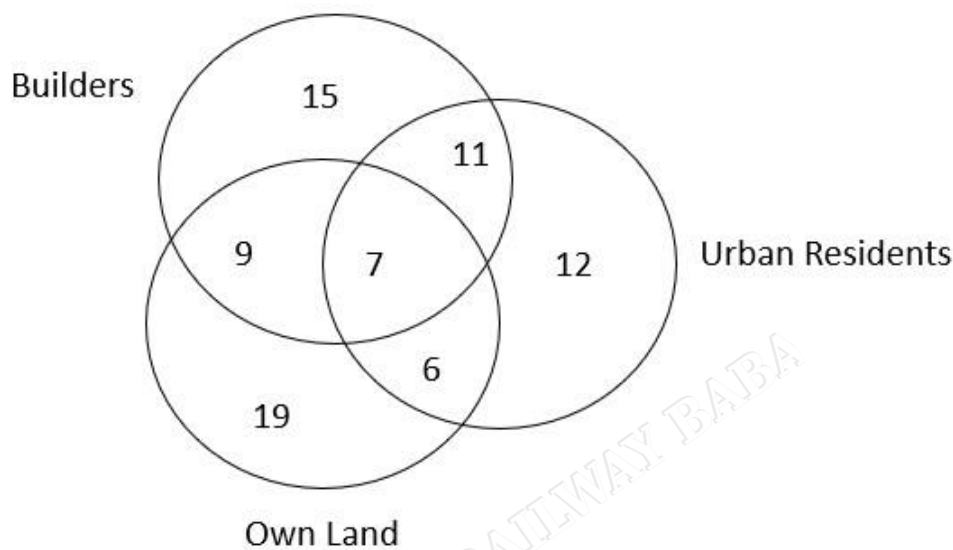
Q.12 In which year was the first national Census of India carried out during British India?

- Ans
- ✓ 1. 1871
 - ✗ 2. 1901
 - ✗ 3. 1891
 - ✗ 4. 1851

Q.13 When a man pushes a wall but the wall does not move, what is the work done by the man on the wall?

- Ans
- ✓ 1. Zero work is done as there is no displacement of the wall.
 - ✗ 2. Negative work is done as the wall resists the push.
 - ✗ 3. Positive work is done as force is applied.
 - ✗ 4. Maximum work is done as the man uses full effort.

Q.14 Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)



How many builders are urban residents and own land?

- Ans
- ✗ 1. 11
 - ✗ 2. 6
 - ✓ 3. 7
 - ✗ 4. 9

Q.15 Coal is primarily formed from:

- Ans
- ✗ 1. Remains of animals preserved in rocks
 - ✗ 2. Lava flows from volcanoes
 - ✗ 3. Mineral deposits in the Earth
 - ✓ 4. Layers of dead plants compressed over millions of years

Q.16 Mahesh has borrowed an amount of ₹4,40,000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 6% per annum after 4 years?

- Ans
- ✗ 1. 1,06,600
 - ✓ 2. 1,05,600
 - ✗ 3. 1,03,600
 - ✗ 4. 1,04,600

Q.17 X people were given a contract for doing a piece of work in 32 days. 8 people did not turn up to work due to sickness, and the rest of the people completed the work in 40 days. What is the value of X?

- Ans**
- ☐ 1. 38
 - ☐ 2. 42
 - ☒ 3. 40
 - ☐ 4. 44

Q.18 If a convex mirror forms a point-sized image at its focus, where is the object located?

- Ans**
- ☒ 1. At infinity
 - ☐ 2. Between F and the pole
 - ☐ 3. Between P and F
 - ☐ 4. At the pole

Q.19 Why are cross-breeding programmes between indigenous and exotic poultry breeds undertaken?

- Ans**
- ☐ 1. To create hybrids with less attractive features
 - ☐ 2. To create hybrids showing similarity with their ancestors
 - ☒ 3. To develop new varieties with desirable traits
 - ☐ 4. To increase only the egg size

Q.20 Systolic pressure is measured when the heart _____.

- Ans**
- ☐ 1. Stops beating
 - ☐ 2. Fills with blood
 - ☐ 3. Relaxes
 - ☒ 4. Contracts

Q.21 What is the constitutional consequence if the Lok Sabha passes a no-confidence motion against the ruling government?

- Ans**
- ☐ 1. The Speaker of Lok Sabha is removed by the President
 - ☐ 2. The government may continue without any change
 - ☐ 3. Only the Prime Minister must submit resignation
 - ☒ 4. The Council of Ministers is obligated to step down

Q.22 Each of P, Q, R, S, T, U and V has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week. Only five people have exams between T and R. S has exam on Wednesday. V has exam immediately after P but not on Saturday. Q has exam immediately before T. How many people have exams between U and V?

- Ans**
- ☐ 1. One
 - ☒ 2. Two
 - ☐ 3. Three
 - ☐ 4. Four

Q.23 Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

NF – RJ – VN
MB – QF – UJ

- Ans**
- ☐ 1. TW – YZ – SY
 - ☐ 2. RM – UT – PR
 - ☒ 3. OG – SK – WO
 - ☐ 4. HK – LN – FL

Q.24 Which cell organelle is responsible for the manufacture of lipids in the cell?

- Ans
- ☐ 1. Rough Endoplasmic Reticulum
 - ☐ 2. Golgi Apparatus
 - ☐ 3. Mitochondria
 - ☒ 4. Smooth Endoplasmic Reticulum

Q.25 Ajay spends 80% of his income. His income is increased by 30%, and his expenditure is increased by 10%. Find the percentage increase in his savings.

- Ans
- ☐ 1. 105%
 - ☐ 2. 100%
 - ☐ 3. 90%
 - ☒ 4. 110%

Q.26 Who was appointed as the Chairman of the Union Public Service Commission by President Droupadi Murmu in May 2025?

- Ans
- ☒ 1. Dr. Ajay Kumar
 - ☐ 2. Dr. Ajit Kumar
 - ☐ 3. Dr. Alok Kumar
 - ☐ 4. Dr. Anil Kumar

Q.27 Which enzyme initiates carbohydrate digestion in the human mouth?

- Ans
- ☒ 1. Salivary amylase present in saliva
 - ☐ 2. Pepsin secreted by gastric glands
 - ☐ 3. Lipase secreted by liver
 - ☐ 4. Trypsin released by pancreas

Q.28 Solve the following linear equations.

$$\begin{aligned} 2x + 3y - 5z &= 4, \\ x + 3y - 2z &= 12, \\ 2x + y - 3z &= 5 \end{aligned}$$

- Ans
- ☐ 1. $x = \frac{-43}{8}, y = \frac{-65}{8}, z = \frac{39}{8}$
 - ☒ 2. $x = \frac{65}{8}, y = \frac{39}{8}, z = \frac{43}{8}$
 - ☐ 3. $x = \frac{43}{8}, y = \frac{65}{8}, z = \frac{39}{8}$
 - ☐ 4. $x = \frac{43}{8}, y = \frac{-65}{8}, z = \frac{-39}{8}$

Q.29 How did Mahatma Gandhi's views on untouchability shape the priorities of the Indian National Congress during the Gandhian phase?

- Ans
- ☐ 1. Endorsing separate political electorates for communities
 - ☒ 2. Making abolition of untouchability a central objective
 - ☐ 3. Shifting primary focus toward agrarian economic reforms
 - ☐ 4. Concentrating on political integration of princely states

Q.30 If $x = \sqrt[3]{512}$, $y = \sqrt[6]{64}$ and $z = 6^3 - 2 \times 10^2$, then $\sqrt[3]{10(x^2 + y^3 + z + 12)}$ is equal to:

- Ans
- ☐ 1. 40
 - ☒ 2. 10
 - ☐ 3. 20
 - ☐ 4. 100

Q.31 In a certain code,
'heavy metal music' is coded as 'mx zb kg'
'heavy storm warning' is coded as 'kw vg mx'
'crazy metal storm' is coded as 'zb rq vg'
(all the codes are two letter coded only)
What is the code for 'warning music'?

- Ans**
- ☐ 1. kg rq
 - ☐ 2. mx rq
 - ☒ 3. kw kg
 - ☐ 4. zb vg

Q.32 Ajay can row at 4.5 km/h in still water. It takes him twice the time to row up as it takes for him to row down the same distance. Find the speed of the stream (in km/h).

- Ans**
- ☐ 1. 0.5
 - ☐ 2. 3
 - ☒ 3. 1.5
 - ☐ 4. 2

Q.33 What should come in place of the question mark (?) in the given series?

7 10 16 25 37 ?

- Ans**
- ☒ 1. 52
 - ☐ 2. 51
 - ☐ 3. 53
 - ☐ 4. 50

Q.34 Which statement correctly describes the atomic number of an element?

- Ans**
- ☐ 1. Total mass of all subatomic particles
 - ☐ 2. Total number of nucleons in the atom
 - ☒ 3. Number of protons present in the nucleus
 - ☐ 4. Number of neutrons present in the nucleus

Q.35 The term 'Ragam-Tanam-Pallavi' is associated with which style of Indian music?

- Ans**
- ☐ 1. Hindustani Music
 - ☐ 2. Sufi Music
 - ☐ 3. Folk Music
 - ☒ 4. Carnatic Music

Q.36 100 apples were bought at ₹1,240 per hundred and were sold at a profit of ₹935. Find the selling price (in ₹) per dozen of apples.

- Ans**
- ☐ 1. 266
 - ☐ 2. 271
 - ☐ 3. 256
 - ☒ 4. 261

Q.37 Find the median from the following data.

Age in years	15-25	25-35	35-45	45-55	55-65	65-75	75-85
No. of patients	10	17	22	26	30	24	21

- Ans**
- ☐ 1. 47 years
 - ☐ 2. 65 years
 - ☒ 3. 55 years
 - ☐ 4. 70 years

Q.38 Why are bulbs filled with nitrogen and argon gases instead of air?

- Ans**
- ☒ 1. To prolong the life of the filament
 - ☐ 2. To make the bulb heavier
 - ☐ 3. To increase brightness
 - ☐ 4. To reduce electricity consumption

Q.39 In the 2024 Global Hunger Index released on October 2024, India is ranked 105th out of the how many countries?

- Ans**
- ☒ 1. 127
 - ☐ 2. 210
 - ☐ 3. 90
 - ☐ 4. 195

Q.40 Which structural feature primarily enables upward movement of water against gravity in plants?

- Ans**
- ☐ 1. Large intercellular spaces in spongy mesophyll
 - ☒ 2. Lignified xylem vessels forming continuous columns
 - ☐ 3. Actively dividing meristematic tissues
 - ☐ 4. Thin-walled sieve tubes with companion cells

Q.41 Hitesh starts from Point A and drives 10 km towards east. He then takes a left turn, drives 5 km, turns left and drives 11 km. He then takes a left turn and drives 6 km. He takes a final left turn, drives 1 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90° turns only unless specified.)

- Ans**
- ☐ 1. 2 km to the south
 - ☒ 2. 1 km to the north
 - ☐ 3. 2 km to the north
 - ☐ 4. 1 km to the south

Q.42 What is the remainder when 3^{939} is divided by 8?

- Ans**
- ☐ 1. 2
 - ☒ 2. 3
 - ☐ 3. 5
 - ☐ 4. 0

Q.43 Refer to the following letter, symbol series and answer the question.

(Left) V E @ M O S % & V I % X \$ T P N \$ V # C & B J (Right)

If all the letters are dropped from the series, which of the following will be fifth from the left?

- Ans**
- ☐ 1. @
 - ☐ 2. #
 - ☒ 3. \$
 - ☐ 4. %

Q.44 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 is the letter-cluster that does NOT belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their positions in the letter-cluster.)

- Ans**
- ☒ 1. KMI
 - ☐ 2. VWT
 - ☐ 3. PQN
 - ☐ 4. YZW

Q.45 A physicist uses a convex lens to focus sunlight onto a piece of paper and notices the smallest, brightest spot forms at a certain distance from the lens. Which property of the lens does this experiment help to determine?

- Ans**
- ☐ 1. The experiment helps to determine the principal axis of the lens.
 - ☐ 2. The experiment helps to determine the optical center of the lens.
 - ☐ 3. The experiment helps to determine the diameter of the lens.
 - ☒ 4. The experiment helps to determine the focal length of the lens.

Q.46 From the top of a cliff the angle of depression of a point on the ground 240 feet away from the bottom of the cliff is 30° . Find the height of the cliff (in feet, rounded off to the nearest integer).
(Use $\sqrt{3} = 1.732$)

- Ans**
- ☐ 1. 124
 - ☒ 2. 139
 - ☐ 3. 146
 - ☐ 4. 130

Q.47 When a gun is fired, it recoils backward as the bullet moves forward. How does this demonstrate Newton's third law of motion?

- Ans**
- ☐ 1. The bullet moves forward only because the gun has stored energy.
 - ☐ 2. The gun moves backward because it is heavier than the bullet.
 - ☐ 3. The gun recoils because the bullet moves faster than the gun.
 - ☒ 4. The gun pushes the bullet forward, and the bullet pushes the gun backward with an equal and opposite force.

Q.48 Refer to the two statements given below and choose the CORRECT option.

Statement A: Selective reabsorption in nephrons helps maintain water and salt balance in the body.

Statement B: Selective reabsorption prevents nitrogenous wastes from entering the filtrate.

- Ans**
- ☐ 1. Statement A is incorrect but B is correct.
 - ☐ 2. Both statements A and B are correct.
 - ☐ 3. Both statements A and B are incorrect.
 - ☒ 4. Statement A is correct but B is incorrect.

Q.49 The LCM of $2^3 \times 6^2 \times 11$, $2^2 \times 11^2 \times 17$ and $6^3 \times 11^2 \times 17^2$ is:

- Ans**
- ☐ 1. $24 \times 34 \times 112 \times 172$
 - ☒ 2. $25 \times 33 \times 112 \times 172$
 - ☐ 3. $24 \times 33 \times 112 \times 172$
 - ☐ 4. $25 \times 34 \times 112 \times 172$

Q.50 Each of G, H, I, J, P, Q and R has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week. Only two people have exam before Q. Only one person has exam after P. Only three people have exam between Q and J. Only one person has exam between I and H. G has exam immediately before I. How many people have exam between R and I?

- Ans**
- ☐ 1. Three
 - ☒ 2. Two
 - ☐ 3. One
 - ☐ 4. None

Q.51 A shopkeeper marks an article at ₹x and offers a discount of 50% on it. He sells it for ₹287 after charging VAT of 64% on the discounted price. What is the value of x?

- Ans**
- ☐ 1. 300
 - ☐ 2. 200
 - ☐ 3. 250
 - ☒ 4. 350

Q.52 A cricket ball of mass 0.15 kg is thrown horizontally at 30 m/s from the top of a building. What is the ball's kinetic energy as it leaves the hand?

- Ans**
- ☐ 1. 90 J
 - ☐ 2. 135 J
 - ☒ 3. 67.5 J
 - ☐ 4. 45.5 J

Q.53 Seven people, F, J, M, L, R, V and X, are sitting in a row, facing north. No one sits to the right of J. Only three people sit between J and R. Only two people sit between R and M. V sits third to the left of L. X sits to the immediate right of L. How many people sit to the left of X?

- Ans**
- ☐ 1. 2
 - ☐ 2. 3
 - ☐ 3. 1
 - ☒ 4. 4

Q.54 In a certain code,
'tall boy smart' is coded as 'we ki no'
'short boy lazy' is coded as 'pa ki ru'
'tall girl lazy' is coded as 'we sa ru'
(all the codes are two letter coded only)
What is the code for "tall boy"?

- Ans**
- ☐ 1. pa ru
 - ☐ 2. we sa
 - ☐ 3. sa ki
 - ☒ 4. we ki

Q.55 Girish scored 459 marks in an examination and was 81 marks short of 20% of the maximum marks. In the same examination, his friend scored 756 marks. What is the percentage of marks scored by his friend?

- Ans**
- ☐ 1. 29%
 - ☒ 2. 28%
 - ☐ 3. 30%
 - ☐ 4. 27%

Q.56 What is the function of the iris in the human eye?

- Ans**
- ☒ 1. Controls the size of the pupil
 - ☐ 2. Refracts incoming light rays
 - ☐ 3. Transmits signals to the brain
 - ☐ 4. Forms the image on the retina

Q.57 Which two districts of Uttarakhand share the inter-state border with Himachal Pradesh in the north-west?

- Ans**
- ☐ 1. Chamoli and Pithoragarh
 - ☐ 2. Pauri and Rudraprayag
 - ☒ 3. Uttarkashi and Dehradun
 - ☐ 4. Champawat and Bageshwar

Q.58

If $\frac{x}{y} = \frac{18}{2}$, then find $\frac{x^2 + y^2}{x^2 - y^2}$

Ans

☐ 1. $\frac{47}{40}$

☐ 2. $\frac{37}{40}$

☐ 3. $\frac{31}{40}$

☒ 4. $\frac{41}{40}$

Q.59 The difference between simple interest and compound interest, compounded annually, on a certain sum of money for 2 years at 11% per annum is ₹371. Find the sum. [Give your answer rounded off to the nearest integer.]

Ans

☐ 1. ₹30,672

☐ 2. ₹30,669

☐ 3. ₹30,679

☒ 4. ₹30,661

Q.60 If a material has an absolute refractive index of 1.7, what does this imply about the speed of light in that material compared to vacuum?

Ans

☐ 1. Light travels 1.7 times faster in the material than in vacuum.

☐ 2. Light travels at the same speed in both.

☐ 3. The speed difference cannot be determined from this value.

☒ 4. Light travels 1.7 times slower in the material than in vacuum.

Q.61 If 25 people, working for 10 hours a day, can complete 2 units of work in 5 days, then how many days will be required for 15 people to complete 18 units of work, if each person works for 10 hours a day?

Ans

☐ 1. 85

☐ 2. 70

☐ 3. 60

☒ 4. 75

Q.62 Which bee variety is commonly known as the Indian bee and is used for commercial honey production?

Ans

☐ 1. Apis mellifera

☐ 2. Apis dorsata

☐ 3. Apis florea

☒ 4. Apis cerana indica

Q.63 If the mode and median of a certain data are 24 and 18, respectively, then the mean of the data is:

Ans

☐ 1. 20

☒ 2. 15

☐ 3. 24

☐ 4. 22

Q.64 If + means -, - means x, x means ÷, ÷ means +, then what will come in place of the question mark (?) in the following equation?

$$3-24 \times 6 \div 21 + 7 = ?$$

- Ans**
- ☐ 1. 28
 - ☒ 2. 26
 - ☐ 3. 36
 - ☐ 4. 31

Q.65 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' and
A # B means 'A is the daughter of B'.

How is F related to M if 'F # H x J % E % M'?

- Ans**
- ☐ 1. Son's daughter
 - ☐ 2. Brother's son
 - ☒ 3. Father's sister
 - ☐ 4. Father's mother

Q.66 Which of the following statements about washing soda is CORRECT?

- Ans**
- ☒ 1. Washing soda is chemically sodium carbonate decahydrate ($\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$)
 - ☐ 2. It is obtained by heating sodium bicarbonate to 100°C
 - ☐ 3. It does not remove permanent hardness of water
 - ☐ 4. Washing soda is acidic in nature

Q.67 21 is related to 274 following a certain logic. Following the same logic, 26 is related to 339. To which of the following is 34 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. 452
 - ☐ 2. 445
 - ☐ 3. 447
 - ☒ 4. 443

Q.68 Which statement best explains why unsaturated carbon compounds are generally more reactive than saturated carbon compounds?

- Ans**
- ☐ 1. Unsaturated compounds have fewer hydrogen atoms attached to carbon
 - ☐ 2. Unsaturated compounds form only straight carbon chains
 - ☐ 3. Unsaturated compounds contain only single bonds between carbon atoms
 - ☒ 4. Unsaturated compounds have double or triple bonds between carbon atoms

Q.69 Who is the author of the book 'Leo: The Untold Story of Chennai Super Kings', which was launched in March 2025?

- Ans**
- ☒ 1. P.S. Raman
 - ☐ 2. Aniruddha Srikanth
 - ☐ 3. K. Chandrashekhara
 - ☐ 4. Ravichandran Ashwin

Q.70 What was the primary theme of the International Symposium on Health Technology Assessment (ISHTA) 2025?

- Ans**
- ☒ 1. Bridging evidence to policy for healthcare
 - ☐ 2. Enhancing global health security efforts
 - ☐ 3. Showcasing medical device technologies
 - ☐ 4. Promoting digital health innovations

Q.71 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'
A ÷ B means 'A is the brother of B'

Based on the above, how is C related to G if 'C x S + D – F ÷ G'?

- Ans**
- ☐ 1. Mother's sister's son
 - ☐ 2. Father's sister's daughter
 - ☒ 3. Sister's son's wife
 - ☐ 4. Mother's sister's daughter

Q.72 A toy manufacturer originally makes a conical toy with a base radius of 3 cm and a height of 7 cm. Due to customer demand, he now wants to produce a similar toy that has 75% of the original volume, while keeping the same base radius as before. What should be the height of the new toy? (Take $\pi = \frac{22}{7}$)

- Ans**
- ☐ 1. 5.5 cm
 - ☐ 2. 5.125 cm
 - ☐ 3. 5.75 cm
 - ☒ 4. 5.25 cm

Q.73 The 44th Amendment Act of 1978 restored the standard term of the Lok Sabha and State Legislature to how many years?

- Ans**
- ☐ 1. three
 - ☐ 2. seven
 - ☒ 3. five
 - ☐ 4. six

Q.74 Let C be a circle with center O. Let AB be a tangent to C, such that AB touches the circle at P. Let X and Y be any two points on C. If $\angle APX = 60^\circ$ and $\angle BPY = 30^\circ$, find $\angle PYX$ and $\angle PXY$, respectively.

- Ans**
- ☒ 1. $60^\circ, 30^\circ$
 - ☐ 2. $90^\circ, 30^\circ$
 - ☐ 3. $90^\circ, 60^\circ$
 - ☐ 4. $30^\circ, 60^\circ$

Q.75 Sodium hydroxide (NaOH) contains _____ as its anion.

- Ans**
- ☐ 1. Na⁺
 - ☐ 2. NO₃⁻
 - ☒ 3. OH⁻
 - ☐ 4. H⁺

Q.76 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into 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.)

(11, 13, 17)
(8, 7, 11)

- Ans
- ☐ 1. (6, 21, 25)
 - ☐ 2. (13, 17, 13)
 - ☒ 3. (10, 11, 15)
 - ☐ 4. (9, 9, 5)

Q.77 Rashmi and Varsha together have ₹22576. If 5/16 of Rashmi's amount is equal to 3/7 of Varsha's amount, how much money does Rashmi have?

- Ans
- ☐ 1. ₹13052
 - ☒ 2. ₹13056
 - ☐ 3. ₹13050
 - ☐ 4. ₹13054

Q.78 Ribosomes are attached to the surface of the rough endoplasmic reticulum. What is the primary function of the rough endoplasmic reticulum?

- Ans
- ☐ 1. Energy production and cellular respiration
 - ☐ 2. DNA replication and transcription
 - ☐ 3. Lipid synthesis
 - ☒ 4. Protein synthesis and transport

Q.79 81 is related to 260 following a certain logic. Following the same logic, 108 is related to 287. To which of the following is 156 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. 334
 - ☐ 2. 332
 - ☐ 3. 340
 - ☒ 4. 335

Q.80 Atomic masses of elements are compared with a standard reference. Carbon-12 was chosen as the standard for the atomic mass unit mainly because:

- Ans
- ☐ 1. Carbon is present in very large amounts in nature
 - ☐ 2. Carbon shows very little chemical reactivity with elements
 - ☒ 3. Carbon-12 gives atomic masses close to whole numbers
 - ☐ 4. Carbon is able to form a large number of compounds

Q.81 Which of the following coastal features in India is believed to have submerged due to tectonic or sea-level changes, as referenced in Indian mythology and archaeology?

- Ans
- ☐ 1. Kavaratti in Lakshadweep
 - ☐ 2. Sunderbans in West Bengal
 - ☐ 3. Rameshwaram near Tamil Nadu
 - ☒ 4. Dwaraka near Gujarat

Q.82 What should come in place of '?' in the given series?

23 34 45 56 67 ?

- Ans
- ☐ 1. 76
 - ☐ 2. 75
 - ☐ 3. 77
 - ☒ 4. 78

Q.83 What should come in place of the '?' in the given series, based on the English alphabetical order?

RLO QKN PJM OIL ?

- Ans
- ☒ 1. NHK
 - ☐ 2. NGK
 - ☐ 3. NGL
 - ☐ 4. NHL

Q.84 A sum of money is divided among X, Y and Z in the ratio 4:3:6. If the share of Z is ₹3300 more than Y, then how much amount will X get more than Y?

- Ans
- ☒ 1. ₹1100
 - ☐ 2. ₹1000
 - ☐ 3. ₹1300
 - ☐ 4. ₹1200

Q.85 Which of the following everyday examples represents a homogeneous mixture?

- Ans
- ☐ 1. Oil mixed thoroughly with water
 - ☐ 2. Sand mixed uniformly with iron filings
 - ☐ 3. Chalk powder stirred in water
 - ☒ 4. Salt completely dissolved in water

Q.86 While covering a distance of 36 km, a man noticed that after cycling for 2 hour 5 minutes, the distance covered by him was $\frac{6}{7}$ of the remaining distance. What was his approximate speed in km/h?

- Ans
- ☐ 1. 7.4
 - ☐ 2. 6.7
 - ☐ 3. 8.7
 - ☒ 4. 8

Q.87 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

All papers are bags.
All bags are copies.
Some copies are erasers.

Conclusions:

(I): All papers are erasers.
(II): All bags are erasers.

- Ans
- ☐ 1. Only conclusion (I) follows.
 - ☒ 2. Neither conclusion (I) nor (II) follows.
 - ☐ 3. Only conclusion (II) follows.
 - ☐ 4. Both conclusions (I) and (II) follow.

Q.88 Why is using compost or vermi-compost preferable to excessive use of fertilizers for increasing soil fertility?

- Ans
- ☒ 1. It eliminates bacterial and viral plant diseases.
 - ☒ 2. It recycles biological waste and avoids environmental harm.
 - ☒ 3. It supplies only micro-nutrients and avoids macronutrients.
 - ☒ 4. It replaces the need for irrigation and weeding.

Q.89 Refer to the following letter and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) U P X @ F H R A A # / E M # U L J \ L \ \ (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. None
 - ☒ 2. Three
 - ☒ 3. Two
 - ☒ 4. One

Q.90 The selling price of 45 books is equal to the cost price of 18 books. Find the loss or gain percentage.

- Ans
- ☒ 1. $\frac{100}{27}\%$ loss
 - ☒ 2. 60 % loss
 - ☒ 3. 60 % gain
 - ☒ 4. $\frac{100}{27}\%$ gain

Q.91 D, R, A, W and S have different marks. Only one person has scored between W and S. Only one person has scored between S and D. A has scored less than W and S. How many people have scored less than R?

- Ans
- ☒ 1. Four
 - ☒ 2. One
 - ☒ 3. Three
 - ☒ 4. Two

Q.92 Consider a quadratic equation $3x^2 + 4x - 8 = 0$. Which of the following quadratic equations will have both roots common with the given quadratic equation?

- Ans
- ☒ 1. $3x^2 - 4x + 8 = 0$
 - ☒ 2. $-1.5x^2 - 2x + 4 = 0$
 - ☒ 3. $3x^2 + 4x + 8 = 0$
 - ☒ 4. $-1.5x^2 + 2x + 4 = 0$

Q.93 Find the value of $\frac{x+3}{x^2-2x} \times \frac{2x-1}{x^2+2x+4} \times \frac{x^4-8x}{2x^2+5x-3}$.

- Ans
- ☒ 1. 2
 - ☒ 2. -1
 - ☒ 3. 0
 - ☒ 4. 1

Q.94 Which of the following is NOT a feature of the Comprehensive Environmental Pollution Index?

- Ans**
- ☒ 1. It was first introduced in 1983.
 - ☐ 2. It shall be an early warning tool.
 - ☐ 3. All the polluting sources identified in the area shall be notified and brought into the public domain.
 - ☐ 4. It can applied to locations other than industrial clusters.

Q.95 The average of the first 18 positive multiples of 10 is:

- Ans**
- ☒ 1. 95
 - ☐ 2. 90
 - ☐ 3. 10
 - ☐ 4. 18

Q.96 Which statement is correct regarding the definition of biodegradable substances?

- Ans**
- ☒ 1. Substances that are broken by biological process
 - ☐ 2. Substances that are broken by chemical process
 - ☐ 3. Substances that are broken by mechanical process
 - ☐ 4. Substances that are broken by physical process

Q.97 Refer to the following letter and symbol series and answer the question that follows.
Counting to be done from left to right only.

(Left) K & Z # % X N E A A Y C + H \ Y = C \$ M H (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. Three
 - ☒ 2. Two
 - ☐ 3. Zero
 - ☐ 4. One

Q.98 If an ammeter reading increases when a thicker wire replaces a thinner one of the same material and length, what is the most likely reason?

- Ans**
- ☐ 1. The wire's resistivity increased
 - ☐ 2. The voltage across the wire decreased
 - ☐ 3. The wire's length is shorter
 - ☒ 4. The resistance of the thicker wire is lower, allowing more current

Q.99 Which Indian filmmaker was inducted as a registered member of the European Film Academy in 2025?

- Ans**
- ☐ 1. Neeraj Ghaywan
 - ☒ 2. Pan Nalin
 - ☐ 3. Kiran Rao
 - ☐ 4. Sriram Raghavan

Q.100 In a factory, the average daily wage of 12 skilled workers and 18 unskilled workers is ₹604. If the average wage of the skilled workers is ₹754, then find the average wage of the unskilled workers.

- Ans**
- ☐ 1. ₹534
 - ☐ 2. ₹514
 - ☐ 3. ₹524
 - ☒ 4. ₹504



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 05/25 - जेई, डीएमएस, सीएमए - CEN - 05/25 - JE, DMS, CMA



Test Date	19/02/2026
Test Time	12:45 PM - 2:15 PM
Subject	RRB JE DMS CMA

* 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

Q.1

The value of $\sqrt{42 + \sqrt{(46 + \sqrt{(3 + \sqrt{(34 + \sqrt{(4)})})})})}$ is:

Ans ☒ 1. 7

☒ 2. 8

☒ 3. 11

☒ 4. 9

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 carefully and decide the appropriate answer.

Among 5 people, A, B, C, D and E, each of a different height, who is the second-tallest?

I: E is shorter than A. B is taller than D but shorter than E.

II: Only C is taller than A. D is shorter than E.

Ans ☒ 1. The data in statement II alone is sufficient to answer the question while data in statement I is not

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

☒ 3. The data in statement I and II together (and not statement I alone or statement II alone) is sufficient to answer the question

☒ 4. The data in statement I and II put together is NOT sufficient to answer the question

Q.3 Bleaching powder is commonly used:

Ans ☒ 1. As a sweetener

☒ 2. To make soap

☒ 3. To disinfect water

☒ 4. As a fuel

Q.4 Find the median of the following data.

7, 19, 88, 20, 19, 26, 90, 81, 44, 34.

Ans ☒ 1. 30

☒ 2. 32

☒ 3. 28

☒ 4. 34

Q.5 Atharv starts from Point A and drives 12 km towards west. He then takes a right turn, drives 3 km, turns right and drives 16 km. He then takes a right turn and drives 9 km. He takes a final right turn, drives 4 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?

(All turns are 90 degree turns only unless specified.)

- Ans**
- ☐ 1. 5 km to the north
 - ☒ 2. 6 km to the north
 - ☐ 3. 5 km to the south
 - ☐ 4. 6 km to the south

Q.6 The Indian classical dance forms Kuchipudi and Bharatanatyam originated in which Indian states, respectively?

- Ans**
- ☒ 1. Andhra Pradesh and Tamil Nadu
 - ☐ 2. Tamil Nadu and Andhra Pradesh
 - ☐ 3. Kerala and Tamil Nadu
 - ☐ 4. Karnataka and Andhra Pradesh

Q.7 A scientist is designing an artificial multi-cellular organism. What must they include to ensure all cells receive nutrients and remove wastes effectively?

- Ans**
- ☒ 1. A transportation system for food, oxygen, and waste
 - ☐ 2. Only specialised tissues for nutrition
 - ☐ 3. Direct contact of every cell with the environment
 - ☐ 4. Simple diffusion through the entire surface

Q.8 Two water supply lines A and B can fill a reservoir individually in 10 hours and 12 hours, respectively. A discharge outlet D can empty the reservoir completely in 6 hours. If all three are opened together at 7:00 A.M., at what time will one-fourth of the reservoir be filled?

- Ans**
- ☐ 1. 11 A.M.
 - ☒ 2. 10 P.M.
 - ☐ 3. 10 A.M.
 - ☐ 4. 11 P.M.

Q.9 If $\operatorname{cosec}^2\theta + 4\sin^2\theta = 4$, where $0^\circ \leq \theta \leq 90^\circ$, then find the value of θ .

- Ans**
- ☐ 1. 90°
 - ☐ 2. 30°
 - ☒ 3. 45°
 - ☐ 4. 60°

Q.10 Anwar's salary is ₹19,000 per month. He spends ₹4,500 on house rent, ₹1,500 on bills and the rest of the amount is his monthly savings. Find his savings (in ₹) in a year, if in the month of his birthday, he spent his complete monthly savings for his birthday celebration.

- Ans**
- ☐ 1. 1,17,000
 - ☐ 2. 1,56,000
 - ☐ 3. 1,30,000
 - ☒ 4. 1,43,000

Q.11 Which of the following statements about Plaster of Paris (POP) is CORRECT?

- Ans**
- ☐ 1. POP is $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ and sets quickly on mixing with water
 - ☒ 2. POP is $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$ and hardens by reacting with water
 - ☐ 3. POP is $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ and is mainly used as a fertilizer
 - ☐ 4. POP is $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$ and sets slowly without water

Q.12 If a constant force acts on two objects of different masses, which statement best describes their acceleration according to the second law of motion?

- Ans**
- ☐ 1. Both objects will have the same acceleration.
 - ☐ 2. Acceleration does not depend on mass.
 - ☐ 3. The object with greater mass will have greater acceleration.
 - ☒ 4. The object with smaller mass will have greater acceleration.

Q.13 A solar cooker uses a mirror to concentrate sunlight onto a vessel. Which type of mirror is used and what property makes it suitable?

- Ans**
- ☐ 1. A convex mirror because it provides a wide field of view
 - ☒ 2. A concave mirror because it focuses parallel sunlight to a single point
 - ☐ 3. A plane mirror because it reflects light uniformly
 - ☐ 4. A convex mirror because it spreads light over a large area

Q.14 88 is related to 225 following a certain logic. Following the same logic, 124 is related to 261. To which of the following is 178 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. 311
 - ☒ 2. 315
 - ☐ 3. 313
 - ☐ 4. 317

Q.15 A trader gives 10% discount on the marked price of an article and gives 40 articles free for buying 112 articles and gains 26% in the entire transaction. Assuming a customer pays for 112 articles, the marked price of an article is what percentage more than its cost price?

- Ans**
- ☒ 1. 90%
 - ☐ 2. 82%
 - ☐ 3. 98%
 - ☐ 4. 95%

Q.16 B is the mother of U. U is the sister of N. C is the father of Y. Y is the husband of N. How is Y related to B?

- Ans**
- ☐ 1. Daughter's son
 - ☐ 2. Husband
 - ☒ 3. Daughter's husband
 - ☐ 4. Father

Q.17 The average of the first 18 positive multiples of 9 is:

- Ans**
- ☐ 1. 81
 - ☐ 2. 9
 - ☒ 3. 85.5
 - ☐ 4. 18

Q.18 In what ratio should sugar costing ₹38 per kg be mixed with sugar costing ₹55 per kg so that by selling the mixture at ₹57.20 per kg, there is a profit of 10%?

- Ans**
- ☒ 1. 3 : 14
 - ☐ 2. 12 : 1
 - ☐ 3. 12 : 5
 - ☐ 4. 15 : 1

Q.19 Bee-keeping is suitable as an additional income because it:

- Ans**
- ☒ 1. Requires low investment
 - ☐ 2. Depends on irrigation
 - ☐ 3. Uses chemical fertilisers
 - ☐ 4. Needs large land area

Q.20 The number 343264 is divisible by:

- Ans**
- ☐ 1. 43
 - ☒ 2. 32
 - ☐ 3. 29
 - ☐ 4. 27

Q.21 Which of the following arrangements produces a nearly uniform magnetic field in the central region of a circular current-carrying system under steady conditions?

- Ans**
- ☐ 1. Using loops of varying radii
 - ☒ 2. Using multiple closely wound turns of identical radius with constant current
 - ☐ 3. Arranging loops in random orientations
 - ☐ 4. Allowing current to vary with time in a single loop

Q.22 I, J, K, U, V and W 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 V and J. Only K lives above W. U lives on an even numbered floor. V lives on the lowermost floor. How many people live between I and K?

- Ans**
- ☐ 1. One
 - ☐ 2. Three
 - ☐ 3. Four
 - ☒ 4. Two

Q.23 In this question, a group of number/symbol is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol to be followed directly as given in the table.

NUMBER/SYMBOL	7	\$	8	6	&	#	3	+	5	4	2	9	@	*
CODE	B	C	R	T	H	U	L	P	A	Q	V	N	J	M

Conditions –

(i) If the first element is a symbol and the last a number, the codes for these two (the first and

the last elements) are to be interchanged.

(ii) If the first element is an odd number and the last an even number, the first and last elements are to be coded as ©

(iii) If both second and third elements are perfect squares, the third element is to be coded as

the code for the second element.

7 & * 8 4

- Ans**
- ☐ 1. M H M R ©
 - ☐ 2. © H M Q ©
 - ☒ 3. © H M R ©
 - ☐ 4. B H M R Q

Q.24 Rupesh has borrowed an amount of ₹4,40,000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 7% per annum after 3 years?

- Ans**
- ☐ 1. 93400
 - ☒ 2. 92400
 - ☐ 3. 91400
 - ☐ 4. 94400

Q.25 A student drags a suitcase on a flat airport floor. If the force applied and the distance moved both double, how does the work done change?

- Ans**
- ☒ 1. Work done halves.
 - ☒ 2. Work done becomes four times greater.
 - ☒ 3. Work done doubles.
 - ☒ 4. Work done remains unchanged.

Q.26 Which method helps prevent rancidity?

- Ans**
- ☒ 1. Exposing food to sunlight
 - ☒ 2. Heating food continuously
 - ☒ 3. Adding excess water
 - ☒ 4. Storing food in airtight containers

Q.27 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. OT - XS
 - ☒ 2. HM - QL
 - ☒ 3. NT - XT
 - ☒ 4. AF - JE

Q.28 Which of the following options correctly explains why the eastern coastal plains of India are wider and more deltaic than the western coastal plains?

- Ans**
- ☒ 1. Eastern rivers flow over steep gradients
 - ☒ 2. Eastern rivers form large deltas due to gentle slopes
 - ☒ 3. Eastern plains have more tectonic uplift
 - ☒ 4. Eastern plains receive less tidal influence

Q.29 The ratio of fare of a person between Auto and Bus is 2 : 3.5 and the ratio of number of passengers travelled, on a particular day, by Auto and Bus is 4 : 7. By what fraction the total fare collected by Auto on that particular day is less than the total fare collected by Bus?

- Ans**
- ☒ 1. $\frac{33}{49}$
 - ☒ 2. $\frac{3}{5}$
 - ☒ 3. $\frac{2}{5}$
 - ☒ 4. $\frac{1}{3}$

Q.30 What global events in late 2019 and early 2020 have contributed to a rethinking of globalisation strategies among policymakers?

- Ans**
- ☒ 1. Decrease in oil prices and global warming
 - ☒ 2. Urbanization and migration
 - ☒ 3. Technological stagnation and inflation
 - ☒ 4. COVID-19 pandemic

Q.31 Refer to the following letter and symbol series and answer the question that follows.
Counting to be done from left to right only.

(Left) M L Z Q @ L X + E S E / J L Q Y Q W + X R (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. None
 - ☐ 2. One
 - ☐ 3. Three
 - ☐ 4. Two

Q.32 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 :: ?

: GJE :: SVQ : %

- Ans**
- ☐ 1. # = IPG, % = QTM
 - ☒ 2. # = ILG, % = QTO
 - ☐ 3. # = MKG, % = QKI
 - ☐ 4. # = PLG, % = QJN

Q.33 If $\frac{x}{x^2 - 4x + 1} = \frac{1}{9}$, then the value of $x^3 + \frac{1}{x^3}$ is:

- Ans**
- ☐ 1. 729
 - ☐ 2. 1256
 - ☐ 3. 1839
 - ☒ 4. 2158

Q.34 In a certain code language,
A + B means 'A is the daughter 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'

Based on the above, how is E related to K if 'E x F – G + H ÷ K'?

- Ans**
- ☐ 1. Daughter
 - ☐ 2. Wife
 - ☒ 3. Brother's wife
 - ☐ 4. Brother's daughter

Q.35 This question is based on the five, three-digit numbers given below.
(Left) 694 874 742 459 648 (Right)
(Example- 697 – First digit = 6, second digit = 9 and third digit = 7)

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

- Ans**
- ☒ 1. 16
 - ☐ 2. 14
 - ☐ 3. 12
 - ☐ 4. 13

Q.36 In the context of uniform circular motion, which of the following examples from everyday life best illustrates this concept?

- Ans**
- ☒ 1. A satellite revolving around the Earth at a fixed speed in a circular orbit
 - ☐ 2. A pendulum bob swinging to and fro
 - ☐ 3. A car moving with changing speed along a circular track
 - ☐ 4. A person walking randomly in a park

Q.37 Who is the author of the book titled 'I Am?', which was launched by Vice-president of India, Jagdeep Dhankhar in February 2025?

- Ans**
- ☐ 1. Grandhi Mallikarjuna Rao
 - ☐ 2. Roshni Nadar
 - ☒ 3. Gopichand P. Hinduja
 - ☐ 4. Satya Nadella

Q.38 Which observation best supports the statement that humans have double circulation of blood?

- Ans**
- ☒ 1. Blood passes through the heart twice in one complete circulation
 - ☐ 2. Blood flows only once through the heart in one complete cycle
 - ☐ 3. Right side of the heart pumps oxygenated blood
 - ☐ 4. Oxygenated and deoxygenated blood mix in the heart

Q.39 What should come in place of '?' in the given series?

3 8 6 11 9 14 ?

- Ans**
- ☒ 1. 12
 - ☐ 2. 16
 - ☐ 3. 17
 - ☐ 4. 15

Q.40 In 2025, which Indian state government announced a legacy policy aimed at ensuring the long-term utilization of sports infrastructure developed for the National Games?

- Ans**
- ☒ 1. Uttarakhand
 - ☐ 2. Bihar
 - ☐ 3. Gujarat
 - ☐ 4. Maharashtra

Q.41 What is the mean of the following distribution?

Marks	10	28	48	69	87
No. of Students	15	34	37	44	12

- Ans**
- ☐ 1. 71
 - ☒ 2. 49
 - ☐ 3. 78
 - ☐ 4. 34

Q.42 L, I, S, T, E and N, each has a different age. Only N is younger than L. S is older than T, but younger than E. Only I is older than E. Who is the third youngest?

- Ans**
- ☒ 1. T
 - ☐ 2. I
 - ☐ 3. E
 - ☐ 4. N

Q.43 Animal tissues differ from plant tissues because animal tissues:

- Ans**
- ☐ 1. Lack specialized functions
 - ☐ 2. Show unlimited growth
 - ☒ 3. Are mostly living and flexible
 - ☐ 4. Possess rigid cell walls

Q.44 Refer to the two statements given below and choose the CORRECT option.

Statement A: Mixed cropping helps reduce the risk of total crop failure under adverse environmental conditions.

Statement B: In mixed cropping, different crops are grown in a definite row arrangement to minimise competition.

- Ans**
- ☐ 1. Both statements A and B are incorrect.
 - ☐ 2. Statement A is incorrect but B is correct.
 - ☐ 3. Both statements A and B are correct.
 - ☒ 4. Statement A is correct but B is incorrect.

Q.45 When an object is placed at infinity in front of a convex mirror, what is the nature of the image formed?

- Ans**
- ☐ 1. Real and inverted
 - ☐ 2. Real and erect
 - ☒ 3. Virtual and erect
 - ☐ 4. Virtual and inverted

Q.46 Seven people, F, J, M, L, R, V and X, are sitting in a row, facing north. Only V sits to the left of F. Only four people sit between V and J. Only X sits between R and L, and R is not an immediate neighbor of J. How many people sit to the left of L?

- Ans**
- ☐ 1. 2
 - ☐ 2. 1
 - ☒ 3. 4
 - ☐ 4. 3

Q.47 A student claims that the force exerted by the Earth on the Moon is much stronger than the force exerted by the Moon on the Earth. Based on Newton's third law and the Universal Law of Gravitation, is this claim correct?

- Ans**
- ☒ 1. No, both forces are equal in magnitude but opposite in direction
 - ☐ 2. No, Earth exerts a much smaller force on the Moon
 - ☐ 3. Yes, because Earth is more massive, it exerts more force
 - ☐ 4. No, the Moon exerts a stronger force because it is closer to Earth

Q.48 Why is it important to dry agricultural produce first in sunlight and then in shade before storage?

- Ans**
- ☒ 1. To reduce moisture content and prevent growth of pests and fungi.
 - ☐ 2. To improve the color and taste of the produce.
 - ☐ 3. To increase the size and brightness of the grains.
 - ☐ 4. To make the grains easier to pack and prevent growth of weeds.

Q.49 If two cars start at the same point and move along a straight road, Car X at a constant speed of 40 km/h and Car Y at a constant speed of 60 km/h, which statement correctly compares their motions after 2 hours?

- Ans**
- ☐ 1. Car Y will be 20 km ahead of Car X after 2 hours.
 - ☒ 2. Car Y will be 40 km ahead of Car X after 2 hours.
 - ☐ 3. Car X will be 40 km ahead of Car Y after 2 hours.
 - ☐ 4. Both cars will have traveled the same distance after 2 hours.

Q.50 One root of the quadratic equation $2x^2+(k+3)x+2k=0$ is reciprocal of the other. Find the roots.

- Ans**
- ☐ 1. $\frac{1}{2}$ and 2
 - ☐ 2. 1 and 1
 - ☒ 3. -1 and -1
 - ☐ 4. -1 and 1

Q.51 Which substance has a molecular mass of 44 u?

- Ans**
- ☐ 1. Carbon monoxide
 - ☒ 2. Carbon dioxide
 - ☐ 3. Methane
 - ☐ 4. Ammonia

Q.52 In graphite, a carbon atom is attached with:

- Ans**
- ☐ 1. One other carbon atom
 - ☐ 2. Four other carbon atoms
 - ☐ 3. Two other carbon atoms
 - ☒ 4. Three other carbon atoms

Q.53 A road roller of diameter 2.24 m and length 1 m has to press a ground of area 880 m^2 . How many revolutions does it make to complete the work?

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

- Ans**
- ☐ 1. 109
 - ☒ 2. 125
 - ☐ 3. 100
 - ☐ 4. 114

Q.54 Which measure has been made mandatory for brick kilns in India to reduce emissions, as per the 2024 government report on pollution control?

- Ans**
- ☐ 1. Use of electrostatic filters in stacks
 - ☐ 2. Conversion to solar thermal drying systems
 - ☒ 3. Transition to zig-zag kiln technology
 - ☐ 4. Retrofitting of biomass combustion units

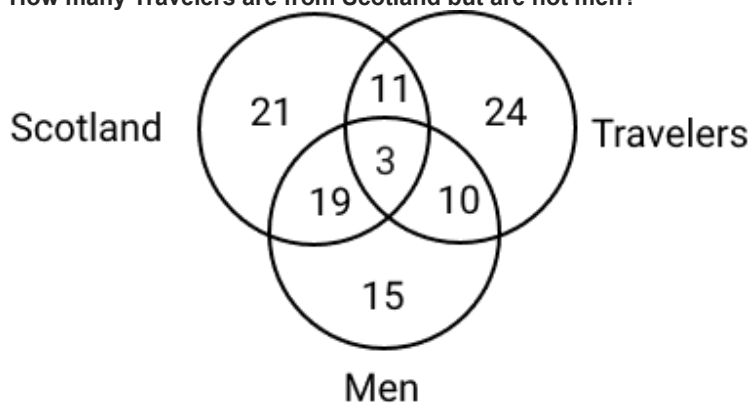
Q.55 If an atom loses two electrons, which of the following changes will occur?

- Ans**
- ☒ 1. The atom will become a cation with +2 charge.
 - ☐ 2. The atomic number will decrease by 2.
 - ☐ 3. The neutron number will decrease by 2.
 - ☐ 4. The atomic number will increase by 2.

Q.56 A 200 m long train crosses a man walking at a speed of 6.6 km/h in the opposite direction in 15 seconds. What is the speed (in km/h) of the train?

- Ans**
- ☐ 1. 46.3
 - ☒ 2. 41.4
 - ☐ 3. 42.2
 - ☐ 4. 37.2

- Q.57 Study the given Venn diagram carefully and answer the question. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)
How many Travelers are from Scotland but are not men?



- Ans ☒ 1. 10
☒ 2. 15
☒ 3. 19
☒ 4. 11

- Q.58 Which calculation correctly gives the molecular mass of nitric acid (HNO_3)?

- Ans ☒ 1. $1 + 14 + 48$
☒ 2. $1 + 14 + 3$
☒ 3. $2 + 14 + 48$
☒ 4. $1 + 14 + 16$

- Q.59 In covering a distance of 130 km, Amit takes 4 hours more than Vinay. If Amit doubles his speed, then he would take 9 hour less than Vinay. Amit's original speed is:

- Ans ☒ 1. 9 km/h
☒ 2. 14 km/h
☒ 3. 5 km/h
☒ 4. 6 km/h

- Q.60 Let C be a circle with centre O, and R be an external point to C. Let RP and RQ be two tangents to circle C with P and Q being the points of tangency, respectively. If $\angle \text{PRQ} = 60^\circ$, then find $\angle \text{POQ}$.

- Ans ☒ 1. 120°
☒ 2. 80°
☒ 3. 100°
☒ 4. 60°

- Q.61 Select the correct option regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): Burning plastic waste is a safe method of disposal.

Reason (R): Burning plastic releases toxic gases harmful to humans and the environment.

- Ans ☒ 1. Assertion is true, reason is false
☒ 2. Assertion is false, reason is true
☒ 3. Both assertion and reason are true, but reason does not correctly explain the assertion
☒ 4. Both assertion and reason are true, and reason correctly explains the assertion

Q.62 If at the same rate of interest, in 2 years, the simple interest is ₹48 and compound interest, compounded annually, is ₹54, then what is the principal (in ₹)?

- Ans**
- ☐ 1. 89
 - ☐ 2. 91
 - ☒ 3. 96
 - ☐ 4. 100

Q.63 What is the mass by mass percentage of salt in a solution prepared by dissolving 10 g of salt in 90 g of water?

- Ans**
- ☐ 1. 90%
 - ☐ 2. 1%
 - ☐ 3. 100%
 - ☒ 4. 10%

Q.64 In this question, a group of number/symbol is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol to be followed directly as given in the table.

Number/symbol	2	@	9	5	\$	3	&	%	#	7	+	4	8	6
Code	P	T	L	J	A	W	E	Q	D	R	S	B	U	F

Conditions –

If the first element is a number and the last a symbol, the codes for these two (the first and the last elements) are to be interchanged.

If the first element is an odd number and the last an even number, the first and last elements are to be coded as *

If both second and third elements are perfect squares, the third element is to be coded as the code for the second element.

What will be the code for the following group of number-symbol?
537+

- Ans**
- ☒ 1. SWRJ
 - ☐ 2. JWRS
 - ☐ 3. JRWS
 - ☐ 4. SRWJ

Q.65 What should come in place of the question mark (?) in the given series?

10 13 19 28 40 ?

- Ans**
- ☒ 1. 55
 - ☐ 2. 52
 - ☐ 3. 54
 - ☐ 4. 53

Q.66 Which of the following features distinguishes the Purvanchal hills from the rest of the Himalayan mountain system?

- Ans**
- ☒ 1. They stretch in a convex arc along the eastern frontier
 - ☐ 2. They include the Aravalli and Satpura hill groups
 - ☐ 3. They are snow-covered throughout the year
 - ☐ 4. They form the highest peaks of the Zaskar range

Q.67 A farming community wants to maximize crop yield despite limited increase in cultivable land. Which set of practices should they prioritize to achieve this goal?

- Ans**
- ☐ 1. Farming without introducing modern technology or high-yielding varieties.
 - ☒ 2. Crop variety improvement, crop production improvement, and crop protection management.
 - ☐ 3. Solely expanding the use of traditional farming methods.
 - ☐ 4. Crop variety improvement and crop production improvement only.

Q.68 Which of the following was NOT a major recommendation of the Kelkar Task Force (2002) on direct taxes?

- Ans**
- ☐ 1. Extension of PAN to cover all economic agents/citizens
 - ☒ 2. Reduction in corporate tax rate to 40 percent for domestic companies
 - ☐ 3. Elimination of the standard deduction for salaried taxpayers
 - ☐ 4. Elimination of the minimum alternate tax on corporate entities

Q.69 Which statement correctly describes an ion?

- Ans**
- ☐ 1. A molecule containing similar atoms only
 - ☒ 2. A charged atom or group of atoms
 - ☐ 3. A compound formed by covalent bonds
 - ☐ 4. A neutral atom formed by chemical bonding

Q.70 A man bought two types of sharpeners, one at ₹18 for 9 sharpeners and the other at ₹8 per sharpener. He purchased an equal number of each type and sold all the sharpeners at ₹8 per piece. Find his percentage profit.

- Ans**
- ☐ 1. 75%
 - ☐ 2. 80%
 - ☒ 3. 60%
 - ☐ 4. 85%

Q.71 A cubical gift box has each side measuring 12.4 cm. It is to be wrapped all over with a gift paper. Find the area to be wrapped.

- Ans**
- ☒ 1. 922.56 cm²
 - ☐ 2. 822.75 cm²
 - ☐ 3. 1022.45 cm²
 - ☐ 4. 1082.50 cm²

Q.72 Mr. Madan got 9 out of 10 marks in English, 15 out of 16 in life sciences and the ratio of the percentage of his marks in English and Mathematics is 15: 16. If the total marks of Mathematics are 20, then find the difference of the percentage of his marks in Mathematics and life sciences.

- Ans**
- ☐ 1. 3.5%
 - ☐ 2. 4.35%
 - ☒ 3. 2.25%
 - ☐ 4. 5.25%

Q.73 If x is inversely proportional to y, and y = 7 when x = 16, find the value of x, when y = 2.

- Ans**
- ☐ 1. 55
 - ☐ 2. 47
 - ☒ 3. 56
 - ☐ 4. 53

Q.74 The product of two consecutive natural numbers is 12. The greater of the two numbers is:

- Ans**
- ☐ 1. 2
 - ☒ 2. 4
 - ☐ 3. 6
 - ☐ 4. 3

Q.75 Which process is responsible for the removal of waste byproducts from the body in living organisms?

- Ans**
- ☐ 1. Transportation
 - ☒ 2. Excretion
 - ☐ 3. Respiration
 - ☐ 4. Nutrition

Q.76 Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. You have to decide which conclusion(s) logically follow(s) from the given statements.

Statements: All stamp are logo. All stamp are cheque. All stamp are document.

Conclusions (I): All logo are document.

Conclusions (II): Some document are cheque.

- Ans**
- ☐ 1. Both conclusions (I) and (II) follow
 - ☐ 2. Neither conclusion (I) nor (II) follows
 - ☐ 3. Only conclusion (I) follows
 - ☒ 4. Only conclusion (II) follows

Q.77 A tap can fill a cistern in 27 hours, while another tap can empty the full cistern in 36 hours. If the cistern is initially empty and both taps are opened together, find the time (in hours) required to fill one-fourth of the cistern.

- Ans**
- ☒ 1. 27
 - ☐ 2. 81
 - ☐ 3. 108
 - ☐ 4. 54

Q.78 Article 23 of the Indian Constitution prohibits which of the following?

- Ans**
- ☒ 1. Prohibition of traffic in human beings and forced labour
 - ☐ 2. Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth
 - ☐ 3. Prohibition of solemnisation of child marriages
 - ☐ 4. Prohibition of employment of children in factories, etc.

Q.79 What was the immediate cause that sparked the 1857 uprising among Indian sepoys?

- Ans**
- ☒ 1. Use of greased cartridges in Enfield rifles
 - ☐ 2. Heavy taxation
 - ☐ 3. Disbandment of local rulers
 - ☐ 4. Attack on Lucknow by the British army

Q.80 A person with both myopia and hypermetropia is most likely to use which type of lens?

- Ans**
- ☐ 1. Concave lens
 - ☐ 2. Cylindrical lens
 - ☐ 3. Convex lens
 - ☒ 4. Bi-focal lens

Q.81 An object of mass 3 kg initially at rest is subjected to a constant force of 9 N for 2 seconds. What will be its final velocity?

- Ans**
- ☐ 1. 3 m/s
 - ☐ 2. 18 m/s
 - ☐ 3. 9 m/s
 - ☒ 4. 6 m/s

Q.82 A shopkeeper bought six identical mobile phones for ₹72,000. He sold two of these mobile phones for ₹42,000. Find his gain percentage.

- Ans**
- ☐ 1. 78%
 - ☐ 2. 76%
 - ☒ 3. 75%
 - ☐ 4. 77%

Q.83 Which of the following bodies is described as the "real executive" in the Indian political system?

- Ans**
- ☐ 1. Council of Ministers
 - ☐ 2. Supreme Court of India
 - ☐ 3. President of India
 - ☒ 4. Prime Minister of India

Q.84 If + means -, - means x, x means ÷, ÷ means +, then what will come in place of the question mark (?) in the following equation?

$$53+28\div 72\times 8-3=?$$

- Ans**
- ☐ 1. 51
 - ☐ 2. 28
 - ☒ 3. 52
 - ☐ 4. 27

Q.85 Which state hosted the 38th National Games of India in 2025?

- Ans**
- ☐ 1. Karnataka
 - ☐ 2. Maharashtra
 - ☒ 3. Uttarakhand
 - ☐ 4. Gujarat

Q.86 Solve the following linear equations.

$$x + y - 2z = 10, \quad 3x + y - z = 12, \quad x + 2y - z = 5$$

- Ans**
- ☐ 1. $x = -4, y = 1, z = 3$
 - ☒ 2. $x = 3, y = -1, z = -4$
 - ☐ 3. $x = 4, y = -1, z = -3$
 - ☐ 4. $x = -3, y = 1, z = 4$

Q.87 Who is the Chairperson of the Hyderabad City Security Council (HCSC) supporting the STREE Summit 2025?

- Ans**
- ☐ 1. Geeta Goti
 - ☒ 2. CV Anand
 - ☐ 3. C Shekar Reddy
 - ☐ 4. Joshna Chinappa

Q.88 Three bells ring at intervals of 4, 6, and 9 minutes, respectively. If they all ring together at 9:00 a.m., at what time will they ring together again?

- Ans**
- ☐ 1. 9:42 a.m.
 - ☐ 2. 9:48 a.m.
 - ☐ 3. 9:54 a.m.
 - ☒ 4. 9:36 a.m.

Q.89 Equal pieces of zinc and copper are added separately to dilute sulphuric acid. Which observation is CORRECT?

- Ans**
- ☐ 1. Both metals evolve hydrogen gas
 - ☐ 2. Neither metal evolves hydrogen gas
 - ☒ 3. Only zinc evolves hydrogen gas
 - ☐ 4. Only copper evolves hydrogen gas

Q.90 KJ 3 is related to MF -10 in a certain way. In the same way, EH 6 is related to GD -7. To which of the given options is QJ 4 related, following the same logic?

- Ans**
- ☐ 1. RE -7
 - ☒ 2. SF -9
 - ☐ 3. RF -9
 - ☐ 4. SE -7

Q.91 Which reformer attempted to synthesize Indian and Western religious thought in the 19th century?

- Ans**
- ☐ 1. Keshab Chandra Sen
 - ☐ 2. Swami Vivekananda
 - ☐ 3. Sir Syed Ahmed Khan
 - ☒ 4. Raja Ram Mohan Roy

Q.92 Find the mean proportional of 144 and 9.

- Ans**
- ☐ 1. 37
 - ☐ 2. 35
 - ☐ 3. 39
 - ☒ 4. 36

Q.93 Six friends, O, P, Q, G, H and I, 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. Q lives on an odd-numbered floor. Only two people live between Q and O. H lives immediately above O. G lives immediately below P. How many people live between I and P?

- Ans**
- ☐ 1. None
 - ☐ 2. Three
 - ☐ 3. One
 - ☒ 4. Two

Q.94 In which of the following organisms are chromoplasts present?

- Ans**
- ☒ 1. Rose
 - ☐ 2. Amoeba
 - ☐ 3. Hydra
 - ☐ 4. Star fish

Q.95 Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(33, 1089, 17)
(21, 441, 11)

- Ans**
- ☒ 1. (18, 324, 11)
 - ☒ 2. (27, 729, 14)
 - ☒ 3. (30, 900, 16)
 - ☒ 4. (24, 576, 13)

Q.96 19 is related to 210 following a certain logic. Following the same logic, 27 is related to 298. To which of the following is 43 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. 474
 - ☒ 2. 478
 - ☒ 3. 476
 - ☒ 4. 475

Q.97 Refer to the following letter, symbol series and answer the question.
(Left) Z U % & J L C @ M * N # % Q X Y & \$ T E % X (Right)
If all the letters are dropped from the series, which of the following will be sixth from the left?

- Ans**
- ☒ 1. *
 - ☒ 2. #
 - ☒ 3. %
 - ☒ 4. &

Q.98 In May 2025, DRDO's DMSRDE laboratory in _____ created an advanced polymeric membrane designed for high-pressure desalination of seawater.

- Ans**
- ☒ 1. Pune
 - ☒ 2. Hyderabad
 - ☒ 3. Kanpur
 - ☒ 4. Jaipur

Q.99 What should come in place of ? in the given series based on the English alphabetical order?
TLP SKO RJN QIM ?

- Ans**
- ☒ 1. PGL
 - ☒ 2. PGK
 - ☒ 3. PHL
 - ☒ 4. PHK

Q.100 Simplify: $23 - [3 - \{9 - (4 + 5)\}]$

- Ans**
- ☒ 1. 20
 - ☒ 2. 24
 - ☒ 3. 27
 - ☒ 4. 17

RAILWAY BABA



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 05/25 - जेई, डीएमएस, सीएमए - CEN - 05/25 - JE, DMS, CMA



Test Date	19/02/2026
Test Time	4:30 PM - 6:00 PM
Subject	RRB JE DMS CMA

* 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

- Q.1** 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.
Only two people have exams before D. Only one person has exam after C. Only three people have exams between D and Z. Only one person has exam between X and Y. F has exam immediately before X.
How many people have exam(s) between E and X?

- Ans ☒ 1. One
☒ 2. Two
☒ 3. Four
☒ 4. Three

- Q.2** The LCM of $5^3 \times 8^2 \times 12$, $5^2 \times 12^2 \times 16$ and $8^3 \times 12^2 \times 16^2$ is:

- Ans ☒ 1. $221 \times 32 \times 53$
☒ 2. $219 \times 32 \times 53$
☒ 3. $220 \times 32 \times 53$
☒ 4. $222 \times 32 \times 53$

- Q.3** Find the discriminant of the equation $\frac{x-3}{x-4} + \frac{x-6}{x-5} = \frac{5}{2}$.

- Ans ☒ 1. -6
☒ 2. 6
☒ 3. 7
☒ 4. -7

- Q.4** Meena, Sunita, Kavita, Rina and Priti have different heights. Only two people are shorter than Kavita. Rina is taller than Priti but shorter than Sunita. Meena is the tallest.
Who is the shortest?

- Ans ☒ 1. Sunita
☒ 2. Rina
☒ 3. Meena
☒ 4. Priti

Q.5 What does Snell's law of refraction state about the ratio of the sine of the angle of incidence to the sine of the angle of refraction for a given colour and pair of media?

- Ans**
- ☐ 1. It varies with the normal.
 - ☐ 2. It depends on the type of mirror.
 - ☒ 3. It remains constant.
 - ☐ 4. It changes with the angle of incidence.

Q.6 What is the volume (in cm^3) of a solid sphere whose radius is 2.1 cm (rounded off to two decimal places)? (Use $\pi = \frac{22}{7}$)

- Ans**
- ☐ 1. 36.80
 - ☒ 2. 38.81
 - ☐ 3. 32.80
 - ☐ 4. 34.81

Q.7 Kartik starts from Point A and drives 11 km towards east. He then takes a right turn, drives 5 km, turns right and drives 14 km. He then takes a right turn and drives 11 km. He takes a final right turn, drives 3 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?

(All turns are 90 degree turns only unless specified.)

- Ans**
- ☐ 1. 7 km to the south
 - ☐ 2. 7 km to the north
 - ☐ 3. 6 km to the north
 - ☒ 4. 6 km to the south

Q.8 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(24, 8, 96)
(28, 7, 98)

- Ans**
- ☐ 1. (48, 8, 144)
 - ☐ 2. (52, 4, 102)
 - ☐ 3. (44, 6, 134)
 - ☒ 4. (32, 6, 96)

Q.9 Refer to the following letter and symbol series and answer the question that follows.
Counting to be done from left to right only.

(Left) D K & Ω # E S Y C + * A B @ R T % U \$ £ Q G (Right)

How many such letters are there each of which is immediately preceded by another letter and also immediately followed by a symbol?

- Ans**
- ☐ 1. 3
 - ☐ 2. 5
 - ☒ 3. 4
 - ☐ 4. 6

Q.10 An individual who is not a member of either House of Parliament may be appointed to the Council of Ministers; however, they must become a member of either House within a specified time frame of:

- Ans**
- ☐ 1. 03 Months
 - ☐ 2. 09 Months
 - ☐ 3. 12 Months
 - ☒ 4. 06 Months

- Q.11** A scientist wants to demonstrate that dispersion depends on wavelength. She shines monochromatic red light through a prism. What does she observe and why?
- Ans**
- ✓ 1. Only a single red ray emerges; no spectrum forms because there is only one wavelength
 - ✗ 2. Red light is absorbed, so nothing emerges
 - ✗ 3. Multiple red rays emerge, each at a different angle
 - ✗ 4. A full spectrum appears, showing all colors

Q.12 In April 2025, which two Indian cricketers were featured in the Wisden 2025 honours list?

- Ans**
- ✗ 1. Ravichandran Ashwin and Jemimah Rodrigues
 - ✗ 2. Ravindra Jadeja and Harmanpreet Kaur
 - ✗ 3. Rohit Sharma and Renuka Thakur
 - ✓ 4. Jasprit Bumrah and Smriti Mandhana

Q.13 Water flows at the rate of 10 m/min from a cylindrical pipe 6 mm in diameter. How long will it take to fill up a conical vessel whose diameter at the base is 60 cm and depth 21 cm?

- Ans**
- ✗ 1. 1 hour, 12 minutes
 - ✗ 2. 1 hour, 6 minutes
 - ✓ 3. 1 hour, 10 minutes
 - ✗ 4. 1 hour, 20 minutes

Q.14 Which crop should a farmer consider for cultivation if he wants to increase protein content in his harvest?

- Ans**
- ✗ 1. Cereals
 - ✗ 2. Oilseeds
 - ✓ 3. Pulses
 - ✗ 4. Vegetables and spices

Q.15 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' and
A # B means 'A is the daughter of B'.

How is E related to J if 'E % V + T # H % J'?

- Ans**
- ✗ 1. Daughter's son
 - ✗ 2. Wife's father
 - ✗ 3. Daughter's husband
 - ✓ 4. Mother's father

Q.16 In January 2025, India became the fourth nation in the world to successfully dock two satellites in space. What was the name of this mission?

- Ans**
- ✗ 1. Mars Orbiter
 - ✗ 2. Chandrayaan-3
 - ✗ 3. Gaganyaan
 - ✓ 4. SpaDeX

Q.17 A student observes that a compass needle deflects when brought near a current-carrying wire. Using your understanding of magnetic fields, explain why this happens.

- Ans**
- ✓ 1. A current-carrying wire creates a magnetic field that exerts a force on the compass needle.
 - ✗ 2. The wire causes a gravitational effect moving the needle.
 - ✗ 3. The wire heats up, causing air currents to move the needle.
 - ✗ 4. The wire produces an electric force that acts on the compass needle.

Q.18 An electric iron uses a heating element made of an alloy instead of pure metal. Which property of alloys justifies this choice?

- Ans**
- ✓ 1. Alloys have higher resistivity and do not oxidise readily at high temperatures
 - ✗ 2. Alloys are cheaper
 - ✗ 3. Alloys are better conductors
 - ✗ 4. Alloys have lower resistivity

Q.19 Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

SWC67, XBH56, CGM45, HLR34, ?

- Ans**
- ✓ 1. MQW23
 - ✗ 2. MOW23
 - ✗ 3. NQW23
 - ✗ 4. MQX23

Q.20 The sum of the squares of two consecutive odd natural numbers is 3530. The sum of the numbers is:

- Ans**
- ✓ 1. 84
 - ✗ 2. 80
 - ✗ 3. 100
 - ✗ 4. 98

Q.21 If x varies directly as y and inversely as z, and x = 16 when y = 40 and z = 3, then find x when y = 50 and z = 6.

- Ans**
- ✗ 1. 12
 - ✓ 2. 10
 - ✗ 3. 16
 - ✗ 4. 15

Q.22 Assertion (A): If the median of the given data (provided in ascending order): 26, 29, 42, 53, x, x + 2, 70, 75, 82, 93, is 60 then the value of x is 59
Reason (R): When the number of observations (n) is even the median is the value of the $\frac{1}{2}$ (sum of middle terms) provided data is arranged in ascending order.

- Ans**
- ✗ 1. Assertion (A) is true but Reason (R) is false.
 - ✓ 2. Both Assertion (A) and Reason are true and R is the correct explanation of A.
 - ✗ 3. Both Assertion (A) and Reason are true and R is not the correct explanation of A.
 - ✗ 4. Assertion (A) is false but Reason (R) is true.

Q.23 If Chandu covers 285 km in a boat in 45 hours against the stream while he takes 18 hours to cover the same distance downstream, then find the speed of the stream.

- Ans**
- ✓ 1. 4.75 km/h
 - ✗ 2. 5.78 km/h
 - ✗ 3. 5.16 km/h
 - ✗ 4. 1.39 km/h

Q.24 P and Q together can fill a cistern with water in 24 hours. If P alone can fill the cistern with water in 96 hours, then in how many hours will Q alone fill three-fourth of the same cistern with water?

- Ans**
- ✗ 1. 49
 - ✗ 2. 25
 - ✓ 3. 24
 - ✗ 4. 48

Q.25 The marks scored by 10 students are given below.

12, 12, 20, 12, 12, 17, 17, 18, 18, 13

The mode of the data is:

- Ans ☒ 1. 12
☐ 2. 20
☐ 3. 17
☐ 4. 15

Q.26 Which of the following is the correct relationship between the number of carbon and hydrogen atoms in alkenes?

- Ans ☐ 1. C_nH_{2n+4}
☐ 2. C_nH_{2n+2}
☐ 3. C_nH_{2n-2}
☒ 4. C_nH_{2n}

Q.27 Which process is used to convert zinc carbonate ore into zinc oxide before reduction?

- Ans ☒ 1. Heating strongly in limited air
☐ 2. Heating with aluminium powder
☐ 3. Heating with carbon powder
☐ 4. Heating strongly in excess air

Q.28 Seven people, F, J, M, L, R, V and X, are sitting in a row, facing north. Only two people sit between F and L. Only M sits to the right of J. Only one person sits between L and J. R sits at some place to the right of V but at some place to the left of X. How many people sit to the left of R?

- Ans ☐ 1. 4
☐ 2. 1
☐ 3. 3
☒ 4. 2

Q.29 Select the correct option regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): Excess accumulation of biodegradable waste can also create environmental problems.

Reason (R): Slow decomposition may lead to foul smell and spread of disease.

- Ans ☒ 1. Both A and R are true, and R is the correct explanation of A
☐ 2. A is true, but R is false
☐ 3. Both A and R are true, but R is not the correct explanation of A
☐ 4. A is false, but R is true

Q.30 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into 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.)

21, 274

34, 443

- Ans ☐ 1. 27, 351
☒ 2. 26, 339
☐ 3. 24, 312
☐ 4. 29, 376

Q.31 A bi-convex lens forms a real, inverted image twice as large as the object. Where is the object located relative to the lens?

- Ans**
- ☒ 1. Between one focal length and twice the focal length from the lens
 - ☐ 2. Beyond twice the focal length from the lens
 - ☐ 3. At twice the focal length from the lens
 - ☐ 4. At the focal length from the lens

Q.32 What is the rank of the Indian Air Force as per the Global Firepower Index, 2025?

- Ans**
- ☒ 1. Fourth
 - ☐ 2. Fifth
 - ☐ 3. Seventh
 - ☐ 4. Sixth

Q.33 Each of P, Q, R, S, T, U and V has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week. Only five people have exams after T. Only five people have exams before R. U has exam immediately before P. V has exam before U but on someday after S. How many people have exams between V and Q?

- Ans**
- ☐ 1. One
 - ☐ 2. Four
 - ☒ 3. Three
 - ☐ 4. Two

Q.34 Which peak marks the north-western end of the Great Himalaya?

- Ans**
- ☒ 1. Nanga Parbat
 - ☐ 2. Mount Everest
 - ☐ 3. Kanchenjunga
 - ☐ 4. Namcha Barwa

Q.35 Why is mercury obtained from cinnabar ore through two heating steps instead of direct reduction?

- Ans**
- ☒ 1. Mercury sulphide must first change into oxide
 - ☐ 2. Mercury metal reacts with oxygen on heating
 - ☐ 3. Mercury oxide forms only in absence of air
 - ☐ 4. Mercury sulphide melts before decomposition

Q.36 Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only. (All numbers are single-digit numbers only)

(Left) 2 # @ 1 4 ^ 8 9 + 2 ? \$ 3 ^ 7 * 9 8 (Right)

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

- Ans**
- ☐ 1. Five
 - ☒ 2. Four
 - ☐ 3. Three
 - ☐ 4. Two

Q.37 India is ranked at what position among 142 Countries, in the World Justice Project(WJP) Rule of Law Index 2024, released on October 2024?

- Ans**
- ☐ 1. 14th
 - ☐ 2. 10th
 - ☒ 3. 79th
 - ☐ 4. 52nd

Q.38 What should come in place of '?' in the given series?

115, 119, 127, 139, 155, ?

- Ans
- ☐ 1. 171
 - ☐ 2. 173
 - ☐ 3. 177
 - ☒ 4. 175

Q.39 A bright metal turns dull over time due to oxidation. What is this process called?

- Ans
- ☒ 1. Corrosion
 - ☐ 2. Sublimation
 - ☐ 3. Filtration
 - ☐ 4. Evaporation

Q.40 Mr. Y travelled 438 km, 820 km and 972 km at a speed of 6 km/hr, 20 km/hr and 27 km/hr, respectively. Find his average speed in km/hr.

- Ans
- ☒ 1. $14\frac{13}{15}$
 - ☐ 2. $14\frac{11}{15}$
 - ☐ 3. $14\frac{14}{15}$
 - ☐ 4. $14\frac{8}{15}$

Q.41 A and B can complete a work in 15 days and 10 days, respectively. They started doing the work together but after 4 days, B had to leave, and A completed the remaining work alone. The entire work was completed in _____ days.

- Ans
- ☐ 1. 10
 - ☒ 2. 9
 - ☐ 3. 5
 - ☐ 4. 6

Q.42 A question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements is sufficient to answer the question. Read both the statements and decide the appropriate answer.

Question: Ax, Bk, Cq, Dp and Ev are sitting around a circular table, facing the centre. Who sits to the immediate left of Cq?

Statements:

(I) Bk sits second to the left of Ev. Dp sits second to the right of Ev.

(II) Ax sits second to the right of Cq. Dp sits to the immediate left of Bk.

- Ans
- ☐ 1. Data in Statement I alone is sufficient to answer the question, while data in statement II is not.
 - ☐ 2. Both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.
 - ☐ 3. Data in 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.43 Baking soda (NaHCO_3) is commonly used in cooking. Which of the following statements about it is correct?

- Ans
- ☐ 1. It is a strong base that turns red litmus blue.
 - ☐ 2. It is acidic in nature and has $\text{pH} < 7$.
 - ☐ 3. It does not react with water or acids.
 - ☒ 4. It reacts with acids to release carbon dioxide gas.

Q.44 A large central vacuole is a characteristic feature of which of the following cells?

- Ans
- ☐ 1. Protozoan cells
 - ☐ 2. Bacterial cells
 - ☒ 3. Plant cells
 - ☐ 4. Animal cells

Q.45 What should come in place of '?' in the given series?

250 200 160 130 ?

- Ans
- ☐ 1. 100
 - ☐ 2. 120
 - ☐ 3. 90
 - ☒ 4. 110

Q.46 What will come in place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$12 \div 3 + 32 \times 4 - 5 = ? + 3$$

- Ans
- ☒ 1. 36
 - ☐ 2. 34
 - ☐ 3. 32
 - ☐ 4. 38

Q.47 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

All chocolates are juices.
All juices are medicines.
No juice is a biscuit.

Conclusions:

(I): No medicine is a biscuit.
(II): No chocolate is a biscuit.

- Ans
- ☐ 1. Both conclusions (I) and (II) follow.
 - ☐ 2. Only conclusion (I) follows.
 - ☐ 3. Neither conclusion (I) nor (II) follows.
 - ☒ 4. Only conclusion (II) follows.

Q.48 If $6\sin Y + \cos Y = \sqrt{5} \sin Y$, then find the value of $\tan Y$.

- Ans
- ☐ 1. $\frac{-6 - \sqrt{5}}{41}$
 - ☒ 2. $\frac{-6 - \sqrt{5}}{31}$
 - ☐ 3. $\frac{-7 - \sqrt{5}}{31}$
 - ☐ 4. $\frac{-6 - \sqrt{5}}{36}$

Q.49 If 15% of A is equal to 20% of B and 10% of B is equal to 25% of C, what is the ratio of A : B : C?

- Ans**
- ☒ 1. 8:7:6
 - ☒ 2. 20:15:6
 - ☒ 3. 12:9:7
 - ☒ 4. 22:17:11

Q.50 The average of the first 18 positive multiples of 8 is:

- Ans**
- ☒ 1. 76
 - ☒ 2. 18
 - ☒ 3. 8
 - ☒ 4. 72

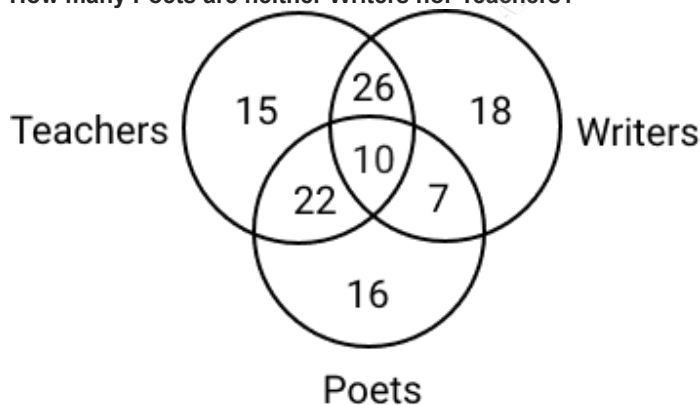
Q.51 QSTV is related to ZBCE in a certain way based on the English alphabetical order. In the same way, VXYA is related to EGHJ. To which of the following is XZAC related, following the same logic?

- Ans**
- ☒ 1. GHIL
 - ☒ 2. GIIL
 - ☒ 3. GJIR
 - ☒ 4. GIJL

Q.52 Which of the following is the main reason for the flatness of the Great Indian Plains?

- Ans**
- ☒ 1. Wind erosion
 - ☒ 2. River deposition
 - ☒ 3. Tectonic uplift
 - ☒ 4. Glacial erosion

Q.53 Study the given Venn diagram carefully and answer the question. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.) How many Poets are neither Writers nor Teachers?



- Ans**
- ☒ 1. 16
 - ☒ 2. 22
 - ☒ 3. 15
 - ☒ 4. 10

Q.54 What is the main purpose of giving vaccinations to farm animals?

- Ans**
- ☒ 1. To protect them from major viral and bacterial diseases
 - ☒ 2. To prevent attacks from external parasites
 - ☒ 3. To increase milk production
 - ☒ 4. To improve the quality of animal feed

Q.55 Refer to the two statements given below and choose the CORRECT option.

Statement A: Milch animals are reared primarily for the production of milk.

Statement B: Milch animals are mainly used for ploughing agricultural fields.

- Ans**
- ✓ 1. Statement A is correct but B is incorrect.
 - ✗ 2. Both statements A and B are incorrect.
 - ✗ 3. Statement A is incorrect but B is correct.
 - ✗ 4. Both statements A and B are correct.

Q.56 The price of fuel decreases by 35%, 10% and 50% in three successive months, but increases by 40% in the fourth month. What is the percentage increase/decrease in the price of fuel in the fourth month as compared to its original price?

- Ans**
- ✗ 1. Increases by 64.45%
 - ✗ 2. Increases by 56.75%
 - ✓ 3. Decreases by 59.05%
 - ✗ 4. Decreases by 63.97%

Q.57 What key difference set the Kheda Satyagraha apart from the Ahmedabad Mill Strike during the phase of heightened nationalist activity?

- Ans**
- ✗ 1. Emphasis on constitutional and legislative demands
 - ✓ 2. Mobilisation of rural peasants versus organisation of urban workers
 - ✗ 3. Reliance on petitions and appeals to colonial authorities
 - ✗ 4. Common leadership under the same nationalist figures

Q.58 When an object is in free fall near the Earth's surface, which of the following physical quantities remains constant if air resistance is neglected?

- Ans**
- ✗ 1. Energy remains constant.
 - ✗ 2. Momentum remains constant.
 - ✓ 3. Acceleration due to gravity remains constant.
 - ✗ 4. Velocity remains constant.

Q.59 Based on the alphabetical order, three of the following four 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. USO
 - ✗ 2. DBX
 - ✗ 3. WUQ
 - ✓ 4. MLG

Q.60 QL 2 is related to SG 16 in a certain way. In the same way, EI 6 is related to GD 20. To which of the following is PN 8 related, following the same logic?

- Ans**
- ✓ 1. RI 22
 - ✗ 2. UJ 23
 - ✗ 3. YU 11
 - ✗ 4. JI 12

Q.61 If third proportional of 8 and 48 be x, then what is the value of x?

- Ans**
- ✗ 1. 289
 - ✗ 2. 286
 - ✓ 3. 288
 - ✗ 4. 291

Q.62 A ball at rest is dropped from the top of a 20 m high building. Calculate the speed with which it hits the ground. (Take $g = 10 \text{ m/s}^2$)

- Ans**
- ☐ 1. 40 m/s
 - ☐ 2. 14 m/s
 - ☐ 3. 10 m/s
 - ☒ 4. 20 m/s

Q.63 The Indian dancer Guru Vempati Chinna Satyam was related to which dance form, for which he was honoured with the Padma Bhushan in 1998?

- Ans**
- ☒ 1. Kuchipudi
 - ☐ 2. Mohiniyattam
 - ☐ 3. Manipuri
 - ☐ 4. Kathakali

Q.64 Which type of spherical mirror has its reflecting surface curved inwards, facing towards the centre of the sphere?

- Ans**
- ☐ 1. Convex mirror
 - ☐ 2. Plane mirror
 - ☐ 3. Parabolic mirror
 - ☒ 4. Concave mirror

Q.65 In a certain code,
'great people gathering' is coded as 'sc nj gy'
'great minds together' is coded as 'xg jp sc'
'read people minds' is coded as 'nj ys jp'
(all the codes are two letter coded only)
What is the code for 'together gathering'?

- Ans**
- ☐ 1. sc ys
 - ☐ 2. gy ys
 - ☐ 3. gy jp
 - ☒ 4. xg gy

Q.66 This question is based on the following words.

OUT USE TUG RIP

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 the English alphabetical order?

- Ans**
- ☒ 1. 11
 - ☐ 2. 12
 - ☐ 3. 14
 - ☐ 4. 10

Q.67 What is the correct sequence in which the oath of office binds a Union Minister?

- Ans**
- ☐ 1. Constitution → Justice → Integrity → Sovereignty
 - ☐ 2. Integrity → Constitution → Sovereignty → Duty → Impartiality (justice without fear or favour)
 - ☒ 3. Allegiance to the → Constitution, → Sovereignty and integrity → Faithful discharge of duties → Impartiality
 - ☐ 4. Allegiance → Sovereignty → Duty and Impartiality → Faithful discharge

Q.68 Refer to the two statements given below and choose the CORRECT option.

Statement A: Poor storage conditions result in weight loss and discolouration of grains.

Statement B: Poor storage conditions enhance seed viability and grain texture.

- Ans**
- ☐ 1. Statement A is incorrect but B is correct.
 - ☐ 2. Both statements A and B are correct.
 - ☐ 3. Both statements A and B are incorrect.
 - ☒ 4. Statement A is correct but B is incorrect.

Q.69 A ball is placed at the edge of a table and left undisturbed. Which form of energy does the ball primarily possess due to its position, and what can happen if it is pushed off the table?

- Ans**
- ☐ 1. The ball possesses chemical energy and will release it when it falls.
 - ☐ 2. The ball possesses elastic potential energy due to its shape.
 - ☒ 3. The ball possesses potential energy and will convert it to kinetic energy as it falls.
 - ☐ 4. The ball possesses kinetic energy and will remain at rest unless a force acts on it.

Q.70 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into 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.)
36, 289
58, 465

- Ans**
- ☐ 1. 32, 256
 - ☐ 2. 19, 183
 - ☒ 3. 23, 185
 - ☐ 4. 21, 168

Q.71 Iron nails are coated with zinc to prevent rusting. Even if the zinc layer is scratched, rusting does not occur because —

- Ans**
- ☒ 1. Zinc acts as a sacrificial anode and corrodes instead of iron.
 - ☐ 2. Zinc reacts with moisture to form a protective film
 - ☐ 3. Iron becomes stainless in the presence of zinc.
 - ☐ 4. Zinc forms a hard oxide layer.

Q.72 In what ratio must a fruit vendor mix two varieties of mangoes costing ₹60/kg and ₹68.40/kg, so that by selling the mixed variety of mangoes at ₹79.80/kg, he may gain 18.75%?

- Ans**
- ☐ 1. 7 : 3
 - ☐ 2. 6 : 1
 - ☐ 3. 3 : 7
 - ☒ 4. 1 : 6

Q.73 The nucleus contains chromosomes, which appear as rod-shaped structures only when the cell is about to divide. These chromosomes are composed of ____.

- Ans**
- ☐ 1. RNA and lipids
 - ☐ 2. Amino acids and carbohydrates
 - ☒ 3. DNA and proteins
 - ☐ 4. Glucose and enzymes

Q.74 A dealer purchases 1,200 eggs at ₹4.50 each. During transit, 8% of the eggs break. The remaining eggs are sold at ₹6.00 each. Find the overall profit percentage.

- Ans**
- ☒ 1. $22\frac{1}{3}\%$
 - ☒ 2. $21\frac{1}{3}\%$
 - ☒ 3. $22\frac{2}{3}\%$
 - ☒ 4. $21\frac{2}{3}\%$

Q.75 Why are terrestrial food chains usually limited to 4–5 trophic levels?

- Ans**
- ☒ 1. Plants produce less oxygen
 - ☒ 2. Energy available decreases at higher trophic levels
 - ☒ 3. Decomposers recycle all energy
 - ☒ 4. Top predators eat less

Q.76 By selling an article at 76% of its marked price, a trader makes a loss of 20%. What will be the profit percentage, if he sells it at 99% of its marked price?

- Ans**
- ☒ 1. $1\frac{1}{19}\%$
 - ☒ 2. $3\frac{3}{19}\%$
 - ☒ 3. $4\frac{4}{19}\%$
 - ☒ 4. $2\frac{2}{19}\%$

Q.77 Match the following List-I (World Events) with List-II (Outcomes) and choose your answer from the code given below.

World Events (List -I) Outcome (List-II)

- 1. United Nations Conference on the Human Environment, 1972 i) Millennium Development Goals (MDG)
- 2. Brundtland Report, 1987 ii) Adoption of Sustainable Development Goals (SDGs)
- 3. UN Millennium Summit, 2000 iii) Environmental Movement
- 4. UN Summit, 2015 iv) The word 'Sustainable Development' was introduced

- Ans**
- ☒ 1. 1(i), 2(iv), 3(iii), 4(ii)
 - ☒ 2. 1(i), 2(ii), 3(iii), 4(iv)
 - ☒ 3. 1(iii), 2(iv), 3(i), 4(ii)
 - ☒ 4. 1(i), 2(ii), 3(iv), 4(iii)

Q.78 Who was honored with the Padma Shri in 2025 for preserving the traditional Tanglia weaving art?

- Ans**
- ☒ 1. Parmar Lavjibhai Nagjibhai
 - ☒ 2. Vinayak Lohani
 - ☒ 3. Pawan Goenka
 - ☒ 4. Prashanth Prakash

Q.79 Simplify: $\frac{4}{5} + \left(\frac{1}{1 + \frac{5}{8}} \right) - \frac{3}{5}$

- Ans
- ☒ 1. $\frac{48}{65}$
 - ☒ 2. $\frac{58}{63}$
 - ☒ 3. $\frac{53}{65}$
 - ☒ 4. $\frac{60}{71}$

Q.80 Which measurable quantity remains the same when a liquid is transferred between containers?

- Ans
- ☒ 1. Volume of the liquid remains unchanged
 - ☒ 2. Density of the liquid always increases
 - ☒ 3. Mass of the liquid becomes zero
 - ☒ 4. Shape of the liquid remains unchanged

Q.81 During aerobic respiration, each pyruvate molecule is broken down to give _____ molecules of carbon dioxide.

- Ans
- ☒ 1. Two
 - ☒ 2. Three
 - ☒ 3. Four
 - ☒ 4. One

Q.82 The simplified value of $178 - 7 \times (3 + 17) + 22$ is:

- Ans
- ☒ 1. 66
 - ☒ 2. 58
 - ☒ 3. 67
 - ☒ 4. 60

Q.83 The length of a cuboid is three times its height, and the breadth is twice the height. If the height is $(x^2 + 2)$ cm, find the lateral surface area of the cuboid at $x = 2$.

- Ans
- ☒ 1. 360 cm²
 - ☒ 2. 420 cm²
 - ☒ 3. 300 cm²
 - ☒ 4. 240 cm²

Q.84 A vending machine contains ₹1, 50 paise, and 25 paise coins. In one tray, the number of coins of these denominations is in the ratio 2:3:4, and their total value is ₹180. In another tray, the values of ₹1, 50 paise, and 25 paise coins are in the ratio 13:11:7, and the total number of coins in this tray is 378. How many 50-paise coins are there in total across both trays?

- Ans
- ☒ 1. 251
 - ☒ 2. 250
 - ☒ 3. 252
 - ☒ 4. 253

Q.85 Compare the products of complete and incomplete combustion of methane:

- Ans**
- ☒ 1. Complete $\rightarrow$ CO + H₂O; Incomplete $\rightarrow$ CO₂ + H₂O
 - ☒ 2. Complete $\rightarrow$ CO₂ + H₂O; Incomplete $\rightarrow$ CO + H₂O
 - ☒ 3. Complete $\rightarrow$ CO₂ only; Incomplete $\rightarrow$ H₂O only
 - ☒ 4. Complete $\rightarrow$ CO + H₂O; Incomplete $\rightarrow$ C + H₂O

Q.86 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'
A ÷ B means 'A is the father of B'

Based on the above, how is C related to G if 'C x S + D ÷ F – G'?

- Ans**
- ☒ 1. Daughter
 - ☒ 2. Wife
 - ☒ 3. Brother's wife
 - ☒ 4. Brother's daughter

Q.87 Amit had invested same amount of sums at simple interest as well as compound interest, compounded annually. The time period of both the sums was 2 years and rate of interest too was the same 10% per annum. At the end, he found a difference of ₹45 in both the interests received. What were the sums (in ₹) invested in each case?

- Ans**
- ☒ 1. 3,600
 - ☒ 2. 3,750
 - ☒ 3. 4,500
 - ☒ 4. 4,850

Q.88 In a certain code,
'child plays game' is coded as 'ra so tu'
'adult plays work' is coded as 'ke so mi'
'game work activity' is coded as 'tu mi lo'

Q. What is the code for activity?

- Ans**
- ☒ 1. lo
 - ☒ 2. ke
 - ☒ 3. mi
 - ☒ 4. tu

Q.89 Why do muscle cells sometimes respire anaerobically during heavy exercise?

- Ans**
- ☒ 1. Because the supply of oxygen is limited
 - ☒ 2. Because lactic acid is required
 - ☒ 3. Because the body wants to store energy
 - ☒ 4. Because glucose is unavailable

Q.90 Why does the temperature remain constant during melting of ice even on heating?

- Ans**
- ☒ 1. Heat energy converts directly into work
 - ☒ 2. Heat energy escapes from ice into the surroundings
 - ☒ 3. Heat energy increases kinetic energy instantly
 - ☒ 4. Heat energy is used to overcome particle attraction

Q.91 Which metal releases the most heat when reacting with excess hydrochloric acid?

- Ans**
- ☒ 1. Iron
 - ☒ 2. Nickel
 - ☒ 3. Zinc
 - ☒ 4. Magnesium

Q.92 The Indian Home Rule League at Madras was founded by _____.

- Ans
- ☒ 1. Subhas Chandra Bose
 - ☒ 2. Annie Besant
 - ☒ 3. Mahatma Gandhi
 - ☒ 4. Bala Gangadhar Tilak

Q.93 What is the remainder when $(x^2 - 4x + 7)$ is divided by $(x - 2)$?

- Ans
- ☒ 1. 3
 - ☒ 2. -1
 - ☒ 3. 1
 - ☒ 4. 7

Q.94 Who was the Chairman of the 'Committee to Review Policy for Public Enterprises', set up by the Government of India in 1984?

- Ans
- ☒ 1. K. Kasturirangan
 - ☒ 2. Subimal Dutt
 - ☒ 3. S. S. Tarapore
 - ☒ 4. Arjun Sengupta

Q.95 Mahesh has borrowed an amount of ₹420000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 6% per annum after 2 years?

- Ans
- ☒ 1. 50400
 - ☒ 2. 51400
 - ☒ 3. 53400
 - ☒ 4. 49400

Q.96 A car travels 120 meters north in 10 seconds and then instantly returns to its original position in the next 10 seconds. Which statement best describes the car's average velocity for the entire trip?

- Ans
- ☒ 1. The average velocity is zero because the displacement is zero.
 - ☒ 2. The average velocity is 6 m/s because the total distance is 240 m in 20 seconds.
 - ☒ 3. The average velocity is 12 m/s because the car covered 120 m in 10 seconds.
 - ☒ 4. The average velocity is 12 m/s because the total time is 10 seconds.

Q.97 The 'Middle-Income Trap' refers to _____.

- Ans
- ☒ 1. Struggle to attain high income status
 - ☒ 2. Over-reliance on foreign aid
 - ☒ 3. Exclusive focus on agriculture
 - ☒ 4. Rapid transition to high-income status

Q.98

The value of $\sqrt{\left(77 + \sqrt{\left(12 + \sqrt{\left(10 + \sqrt{\left(32 + \sqrt{(16)}\right)}\right)}\right)}\right)}$ is:

- Ans
- ☒ 1. 13
 - ☒ 2. 8
 - ☒ 3. 11
 - ☒ 4. 9

Q.99 Two circles, having their centres at A and at B, touch externally at a point M. From a point P on a tangent at M, tangents PQ and PR are drawn to the circles with points of contact Q and R, respectively. If AP = 13 cm and AM = 5 cm, find the value of PQ + PR – PM.

- Ans**
- ☒ 1. 12 cm
 - ☐ 2. 10 cm
 - ☐ 3. 13 cm
 - ☐ 4. 14 cm

Q.100 During a sale 50% of the goods are sold at 19% profit, 20% of the remaining goods are sold at 40% profit and the still remaining goods are sold at a loss of 25%. If there is an overall profit of x%, then what is the value of x?

- Ans**
- ☐ 1. 2
 - ☐ 2. 4
 - ☐ 3. 5
 - ☒ 4. 3.5

RAILWAY BABA



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सीईएन - 05/25 - जेई, डीएमएस, सीएमए - CEN - 05/25 - JE, DMS, CMA



Test Date	20/02/2026
Test Time	9:00 AM - 10:30 AM
Subject	RRB JE DMS CMA

* 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

Q.1 A sound wave travels from air into water. How does its frequency, speed, and wavelength change as it crosses the boundary?

- Ans**
- ☒ 1. Its frequency increases, speed remains the same, and wavelength decreases
 - ☒ 2. Its frequency decreases, speed decreases, and wavelength increases
 - ☒ 3. Its frequency remains constant, speed decreases, and wavelength decreases
 - ☒ 4. Its frequency remains constant, speed increases, and wavelength increases

Q.2 Seven people, A, L, M, I, R, H and S, are sitting in a row, facing north. Only three people sit to the left of A. Only H sits to the right of R. Only three people sit between R and L. M sits at some place to the left of I but at some place to the right of S. How many people sit between S and I?

- Ans**
- ☒ 1. Two
 - ☒ 2. Four
 - ☒ 3. One
 - ☒ 4. Three

Q.3 The Deccan Plateau is separated from the Chota Nagpur Plateau by which of the following?

- Ans**
- ☒ 1. Vindhya Range
 - ☒ 2. Aravalli Hills
 - ☒ 3. Mahanadi Basin
 - ☒ 4. Western Ghats

Q.4 Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only. (Note: All numbers are single digit numbers only.)

(Left) 8 9 & 8 \$ 5 # @ & # 4 @ 3 ! + ? 4 5 & 8 (Right)

If all the symbols are dropped from the series, which of the following will be seventh from the right?

- Ans**
- ☒ 1. 8
 - ☒ 2. 5
 - ☒ 3. 4
 - ☒ 4. 3

Q.5 A young child is diagnosed with both myopia and hypermetropia in different eyes. What is the most appropriate corrective approach?

- Ans**
- ☒ 1. Using bifocal lenses in both eyes
 - ☒ 2. Providing glasses with different lenses for each eye (concave for one, convex for the other)
 - ☒ 3. Providing identical convex lenses for both eyes
 - ☒ 4. Using cylindrical lenses in both eyes

Q.6 217 is related to 115 following a certain logic. Following the same logic, 183 is related to 81. To which of the given options is 234 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 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. 132
 - ☒ 2. 139
 - ☒ 3. 121
 - ☒ 4. 145

Q.7 Who has been elected as the President of Centre of Films for Children and Young People (CIFEJ) for the 2025–2027 term?

- Ans**
- ☒ 1. SS Rajamouli
 - ☒ 2. Lokesh Kanagaraj
 - ☒ 3. Jitendra Mishra
 - ☒ 4. Om Raut

Q.8 Which statement correctly describes a heterogeneous mixture?

- Ans**
- ☒ 1. Its particles are uniformly distributed at particle level
 - ☒ 2. Its composition remains fixed and constant always
 - ☒ 3. Its composition is not uniform throughout the mixture
 - ☒ 4. Its components cannot be separated by physical methods

Q.9 Which of the following does NOT describe a property of ethanol (C_2H_5OH)?

- Ans**
- ☒ 1. It is a clear, colourless liquid with a pleasant smell.
 - ☒ 2. It reacts with sodium to release hydrogen gas.
 - ☒ 3. It is soluble in water in all proportions.
 - ☒ 4. It turns blue litmus paper red.

Q.10 Govind starts from Point A and drives 5 km towards south. He then takes a left turn, drives 5 km, turns left and drives 12 km. He then takes a left turn and drives 11 km. He takes a final left turn, drives 7 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90° turns only unless specified.)

- Ans**
- ☒ 1. 6 km to the east
 - ☒ 2. 5 km to the west
 - ☒ 3. 6 km to the west
 - ☒ 4. 5 km to the east

Q.11 P is the brother of W. W is the father of R. T is the father of J. J is the son of R. How is J related to P?

- Ans**
- ☒ 1. Daughter's husband
 - ☒ 2. Brother's daughter's husband
 - ☒ 3. Daughter's son
 - ☒ 4. Brother's daughter's son

Q.12 Which of the following statements about Parliamentary Committees is TRUE?

- Ans**
- ☐ 1. Ad Hoc Committees are permanent in nature.
 - ☒ 2. Standing Committees are reconstituted from time to time and are permanent.
 - ☐ 3. There are no temporary Parliamentary Committees.
 - ☐ 4. All Parliamentary Committees are permanent.

Q.13 Suppose a student wants to design an amusement park ride that moves people in a circle at uniform speed. Which concept should the student apply to ensure riders stay safely in their seats during the circular motion?

- Ans**
- ☐ 1. Increasing speed randomly will keep them safe
 - ☐ 2. Gravity alone is sufficient to keep the riders in place
 - ☐ 3. A constant outward force is needed to keep riders pressed against their seats
 - ☒ 4. A constant inward (centripetal) force is needed on the riders to keep them in uniform circular motion

Q.14 A technician needs to connect a new appliance in a domestic circuit to ensure it receives full voltage and can be operated independently. What should the technician do?

- Ans**
- ☐ 1. Connect the appliance only to the neutral wire
 - ☒ 2. Connect the appliance in parallel with existing appliances
 - ☐ 3. Connect the appliance only to the earth wire
 - ☐ 4. Connect the appliance in series with existing appliances

Q.15 A plant sheds its leaves and bark to remove stored waste products. How does this strategy differ from the way animals excrete wastes?

- Ans**
- ☐ 1. Plants use blood circulation for excretion, unlike animals.
 - ☐ 2. Plants use digestive systems to remove waste, unlike animals.
 - ☐ 3. Plants have a single organ system for waste removal, unlike animals.
 - ☒ 4. Plants use parts that will be shed, while animals have specialized organs for excretion.

Q.16 A dishonest vendor claims that he is selling goods at their cost price. But he is weighing 902 grams for 1000 grams. What is his profit percentage (rounded off to 2 decimal places)?

- Ans**
- ☐ 1. 12.08%
 - ☐ 2. 6.51%
 - ☐ 3. 11.82%
 - ☒ 4. 10.86%

Q.17 If a point is located below the principal axis of a spherical mirror, what sign is assigned to its perpendicular distance according to the sign convention for spherical mirrors?

- Ans**
- ☐ 1. Positive
 - ☐ 2. Zero
 - ☐ 3. Depends on mirror type
 - ☒ 4. Negative

Q.18 Methane reacts with chlorine in the presence of sunlight to form chloromethane and hydrogen chloride. Which of the following statements is CORRECT?
Statement I: Only one chlorine atom can substitute at a time.
Statement II: The reaction is an example of a substitution reaction.
Statement III: Multiple substitution can occur if the reaction continues.

- Ans**
- ☐ 1. Only I and III are true
 - ☐ 2. Only II and III are true
 - ☒ 3. I, II and III are true
 - ☐ 4. Only I and II are true

Q.19 Two men A and B walk round a circle 1300 metres in circumference. A walks at the rate of 150 metres per minute and B at the rate 80 metres per minute. If they both start at the same time from the same point and walk in the same direction, after how much time will they meet each other?

- Ans**
- ✓ 1. $18\frac{4}{7}$ min
 - ✗ 2. $17\frac{8}{7}$ min
 - ✗ 3. $16\frac{5}{7}$ min
 - ✗ 4. $15\frac{4}{7}$ min

Q.20 Where is perinuclear space present?

- Ans**
- ✗ 1. Outside the nucleus
 - ✗ 2. Within the nucleolus
 - ✗ 3. Inside of the nucleus
 - ✓ 4. Between two layers of the nuclear envelope

Q.21 When was Namami Gange Programme launched to clean the Ganga river?

- Ans**
- ✗ 1. 2017
 - ✗ 2. 2020
 - ✓ 3. 2014
 - ✗ 4. 2015

Q.22 Which change will promote micelle formation in a detergent solution?

- Ans**
- ✓ 1. Increasing detergent concentration above Critical Micelle Concentration(CMC)
 - ✗ 2. Lowering the temperature below Kraft point
 - ✗ 3. Adding more water to dilute the solution
 - ✗ 4. Decreasing detergent concentration below Critical Micelle Concentration(CMC)

Q.23 Magnesium ribbon burns with:

- Ans**
- ✗ 1. A blue non-luminous flame
 - ✓ 2. A bright white flame
 - ✗ 3. A yellow luminous flame
 - ✗ 4. No visible flame

Q.24 Which property explains why the path of light is not visible when a beam passes through a true solution?

- Ans**
- ✓ 1. Particles are smaller than one nanometre
 - ✗ 2. Particles can be removed by filtration
 - ✗ 3. Particles are heavier than solvent molecules
 - ✗ 4. Particles settle down on standing still

Q.25 A camp has provisions for 51 persons for 12 days. If the number of persons is increased to 102, for how many days will the same provisions last?

- Ans**
- ✗ 1. 9
 - ✗ 2. 5
 - ✗ 3. 4
 - ✓ 4. 6

- Q.26** 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 codes for the respective Number/Symbol are to be followed directly as given in the table.

Number/symbol	2	@	5	8	\$	9	&	%	#	6	+	7	3	1
Code	P	T	F	J	W	A	E	R	D	Q	S	B	U	L

Conditions:

If the first element is a number and the last a symbol, the codes for these two (the first and the last elements) are to be interchanged.

If the first element is an even number and the last an odd number, the first and last elements are to be coded as \$.

If both the second and third elements are perfect cubes, the third element is to be coded as the code for the second element.

What is the code for the following group of numbers/symbols?

28%5

- Ans**
- ☒ 1. PRJF
 - ☒ 2. \$RJ\$
 - ☒ 3. PJRF
 - ☒ 4. \$JR\$

- Q.27** What is a key difference between chemical fertilisers and manures in terms of nutrient release to plants?

- Ans**
- ☒ 1. Manures have higher and less variable nutrient concentrations.
 - ☒ 2. Chemical fertilisers enhance biological activity.
 - ☒ 3. Manures release nutrients gradually.
 - ☒ 4. Conventional chemical fertilisers release nutrients gradually.

- Q.28** In this question, a group of number/symbol is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol to be followed directly as given in the table.

NUMBER/SYMBOL	7	\$	8	6	&	#	3	+	5	4	2	9	@	*
CODE	A	E	R	T	H	U	K	L	P	Z	C	V	N	Q

Conditions –

(i) If the first element is a symbol and the last a number, the codes for these two (the first and the last elements) are to be interchanged.

(ii) If the first element is an odd number and the last an even number, the first and last elements are to be coded as ©

(iii) If both second and third elements are perfect squares, the third element is to be coded as the code for the second element.

What will be the code for the following group?

7 4 9 @ \$

- Ans**
- ☒ 1. A Z Z R E
 - ☒ 2. E Z Z N E
 - ☒ 3. A V Z N E
 - ☒ 4. A Z Z N E

- Q.29** Which metal listed below shows the strongest reaction when added to dilute hydrochloric acid?

- Ans**
- ☒ 1. Magnesium
 - ☒ 2. Iron
 - ☒ 3. Zinc
 - ☒ 4. Copper

Q.30 The selling price of 20 books is equal to the cost price of 31 books. Find the loss or gain percentage.

Ans ☒ 1. 55 % gain

☒ 2. $\frac{100}{11}\%$ gain

☒ 3. 55 % loss

☒ 4. $\frac{100}{11}\%$ loss

Q.31 Why is it important to keep the level of vitamins A and K high in poultry feeds for broilers?

Ans ☒ 1. To increase their tolerance to cold weather

☒ 2. To ensure proper nutrition for healthy growth and development

☒ 3. To make broilers resistant to external parasites

☒ 4. To reduce the size of eggs

Q.32 Each of A, B, C, M, N and O has scored different marks. Only two people have scored between O and B. Only one person has scored more than M. Only three people have scored between M and O. N has scored more than C but less than A. How many people have scored less than C?

Ans ☒ 1. Two

☒ 2. One

☒ 3. Three

☒ 4. Four

Q.33 The 7-digit number 93A562B is divisible by 9, What is the minimum value of (A + B)?

Ans ☒ 1. 2

☒ 2. 4

☒ 3. 7

☒ 4. 5

Q.34 Standard deviation of 10, 12, 9, 8, 21 is (correct to two decimals):

Ans ☒ 1. 4.59

☒ 2. 4.79

☒ 3. 4.89

☒ 4. 4.69

Q.35 Which of the following statements is TRUE for all saturated hydrocarbons?

Ans ☒ 1. They are generally very reactive due to triple bonds.

☒ 2. They readily undergo addition reactions.

☒ 3. They contain at least one double bond.

☒ 4. They show substitution reactions rather than addition reactions.

Q.36 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. No one has exam before Z. Only three people have exam between Z and F. Only one person has exam between F and X. Y has exam on Wednesday. D has exam on one of the days after E but on one of the days before C. On which day of the week does D have exam?

Ans ☒ 1. Friday

☒ 2. Tuesday

☒ 3. Thursday

☒ 4. Wednesday

Q.37 Which of the following is an effect of non-biodegradable substances in water bodies?

- Ans**
- ☐ 1. Helps plants grow
 - ☐ 2. Water becomes fertile
 - ☐ 3. Provides nutrients for fish
 - ☒ 4. Clogs drains and harms aquatic life

Q.38 Why does a torch bulb glow only when the switch is turned on?

- Ans**
- ☐ 1. Because the bulb is functional
 - ☐ 2. Because the bulb is in series with the cell
 - ☐ 3. Because the battery is charged
 - ☒ 4. Because the switch completes the circuit, allowing current to flow

Q.39 In this question, a question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements is sufficient to answer the question. Read both the statements and decide the appropriate answer.

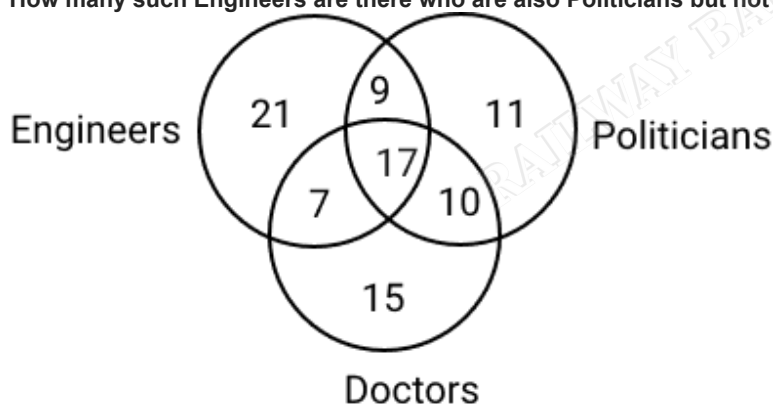
Af, Bg, Cq, Dy and En are sitting around a circular table, facing the centre. Who sits second to the right of Bg?

(I) Af sits to the immediate right of En. Cq is the immediate neighbour of Dy and En.

(II) Dy sits to the immediate right of Bg. En sits second to the left of Bg.

- Ans**
- ☐ 1. Data in Statement II alone is sufficient to answer the question while data in Statement I is not.
 - ☐ 2. 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 Statements I and II together are NOT sufficient to answer the question.

Q.40 Study the given Venn diagram carefully and answer the question. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts)
How many such Engineers are there who are also Politicians but not Doctors?



- Ans**
- ☒ 1. 9
 - ☐ 2. 17
 - ☐ 3. 10
 - ☐ 4. 7

Q.41 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into 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.)

(2,9,17)
(11,16,60)

- Ans**
- ☐ 1. (11,8,12)
 - ☐ 2. (3,2,34)
 - ☐ 3. (9,12,8)
 - ☒ 4. (6,17,41)

Q.42 When an object is placed at the center of curvature (C) of a concave mirror, what is the nature of the image formed?

- Ans**
- ☐ 1. Enlarged and inverted
 - ☐ 2. Highly diminished, point-sized
 - ☒ 3. Real and inverted
 - ☐ 4. Virtual and erect

Q.43 Six friends, O, P, Q, G, H and I, 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 one person lives above Q. P lives on an even-numbered floor but not on floor number 4. Only two people live between P and H. Only two people live between Q and I. O lives immediately below Q. How many people live between G and O?

- Ans**
- ☐ 1. None
 - ☐ 2. Three
 - ☐ 3. One
 - ☒ 4. Two

Q.44 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. LD - XF
 - ☐ 2. ZS - NV
 - ☐ 3. WP - KS
 - ☐ 4. TM - HP

Q.45 Girish scored 664 marks in an examination and was 8 marks short of 84% of the maximum marks. In the same examination, his friend scored 472 marks. What is the percentage of marks scored by his friend?

- Ans**
- ☒ 1. 59%
 - ☐ 2. 61%
 - ☐ 3. 56%
 - ☐ 4. 58%

Q.46 If $7 : 21 :: 2.2 : x$ and $7 : 49 :: 9 : y$, what is the ratio of x to y ?

- Ans**
- ☒ 1. 11 : 105
 - ☐ 2. 12 : 103
 - ☐ 3. 15 : 115
 - ☐ 4. 9 : 106

Q.47 Why is potassium hydroxide used in the bell-jar experiment involving photosynthesis?

- Ans**
- ☒ 1. To absorb carbon dioxide
 - ☐ 2. To provide sunlight
 - ☐ 3. To supply oxygen
 - ☐ 4. To remove water

Q.48 Which economic model advocates that developing countries should prioritize import substitution over free trade to promote economic development?

- Ans**
- ☐ 1. Comparative Advantage Theory
 - ☐ 2. Neoliberalism
 - ☐ 3. Export-led Growth Model
 - ☒ 4. Import Substitution Industrialization

Q.49 What happens to the work done if the displacement becomes zero despite a force being applied?

- Ans**
- ☐ 1. The work done decreases.
 - ☐ 2. The work done increases.
 - ☒ 3. The work done is zero.
 - ☐ 4. The work done remains constant.

Q.50 In a wallet containing gold, silver and bronze tokens, the ratio of gold to silver tokens was 5:17 while the ratio of bronze to gold tokens was 18:19. What was the ratio of bronze to silver tokens?

- Ans**
- ☐ 1. 98:328
 - ☐ 2. 93:327
 - ☒ 3. 90:323
 - ☐ 4. 95:330

Q.51 Which of the following compounds has a formula unit mass of 100 u?

- Ans**
- ☐ 1. MgO
 - ☐ 2. CaCl₂
 - ☐ 3. Na₂CO₃
 - ☒ 4. CaCO₃

Q.52 9 identical cartons together weigh 72 kg. How many cartons of the same type would be needed to make up a total 168 kg?

- Ans**
- ☐ 1. 18
 - ☐ 2. 20
 - ☐ 3. 24
 - ☒ 4. 21

Q.53 How much fund is allotted to the Khelo India (national programme for development of sports) for FY26?

- Ans**
- ☐ 1. ₹1,400 crore
 - ☒ 2. ₹1,000 crore
 - ☐ 3. ₹1,200 crore
 - ☐ 4. ₹1,600 crore

Q.54 Which of the following statements correctly differentiates the power of the Rajya Sabha from the Lok Sabha?

- Ans**
- ☐ 1. Rajya Sabha can initiate a motion of no-confidence against the Council of Ministers
 - ☐ 2. Rajya Sabha can amend Money Bills
 - ☐ 3. Rajya Sabha has equal power with Lok Sabha in all financial matters
 - ☒ 4. Rajya Sabha can authorise Parliament to make laws on State subjects

Q.55 During a round-trip journey where a person walks to a location at 5 km/h and returns at 3 km/h, which statement about average speed is correct?

- Ans**
- ☐ 1. Average speed is 3 km/h.
 - ☐ 2. Average speed is 5 km/h.
 - ☒ 3. Average speed will be less than the arithmetic mean of 5 km/h and 3 km/h.
 - ☐ 4. Average speed equals the arithmetic mean of 5 km/h and 3 km/h.

Q.56 The average of the first 18 positive multiples of 15 is:

- Ans**
- ☐ 1. 18
 - ☐ 2. 135
 - ☐ 3. 15
 - ☒ 4. 142.5

Q.57 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion(s) logically follow(s) from the statements.

Statements: Some bins are cats. No cat is a deer. No cat is a tree.

Conclusions:

(I): No bin is a deer.

(II): Some trees are deers.

- Ans**
- ☐ 1. Both conclusions (I) and (II) follow.
 - ☒ 2. Neither conclusion (I) nor (II) follows.
 - ☐ 3. Only conclusion (II) follows.
 - ☐ 4. Only conclusion (I) follows.

Q.58 Find the least number which when divided by 5, 6, 3 and 4 leaves a remainder 2, but when divided by 7 leaves no remainder.

- Ans**
- ☐ 1. 168
 - ☐ 2. 147
 - ☐ 3. 198
 - ☒ 4. 182

Q.59 The population of country is 10 crores at present and is expected to grow to 17.28 crores in the next three years. Neglecting the death rate, the uniform annual percentage rate of growth is:

- Ans**
- ☐ 1. 11
 - ☒ 2. 20
 - ☐ 3. 10
 - ☐ 4. 12

Q.60 Why are solids described as rigid in nature?

- Ans**
- ☐ 1. Their particles slide easily under applied external force
 - ☐ 2. Their particles possess very low mass and volume
 - ☒ 3. Their particles are closely packed with strong attraction
 - ☐ 4. Their particles move freely with weak mutual attraction

Q.61 Kiran has borrowed an amount of ₹4,40,000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 7% per annum after 2 years?

- Ans**
- ☐ 1. 60600
 - ☐ 2. 63600
 - ☒ 3. 61600
 - ☐ 4. 62600

Q.62 Simplify the following.

$$294 \div [10 \div 5 \times \{11 + 12 - (8 + 5 - (10 + 1))\}]$$

- Ans ☒ 1. 7
☐ 2. 4
☐ 3. 2
☐ 4. 15

Q.63 Social indicators of development improved after economic growth accelerated. Which of the following indicators saw the most consistent improvement after 1991?

- Ans ☒ 1. Maternal Mortality Rate
☐ 2. Gini coefficient
☐ 3. Consumer Price Index
☐ 4. Fiscal deficit

Q.64 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.

IIO : JDK
NGR : OBN

- Ans ☐ 1. BHW : BCR
☐ 2. IQL : IKH
☒ 3. ORL : PMH
☐ 4. ITX : IOS

Q.65 Find the value of x, y and z from the following equations:

$$3x + 2y - z = 24, \quad x - 5y + 3z = 16, \quad x + y - 3z = 21$$

- Ans ☐ 1. $x = \frac{-229}{42}, y = \frac{-289}{42}, z = \frac{97}{21}$
☒ 2. $x = \frac{389}{42}, y = \frac{-97}{21}, z = \frac{-229}{42}$
☐ 3. $x = \frac{289}{42}, y = \frac{97}{21}, z = \frac{229}{42}$
☐ 4. $x = \frac{-97}{21}, y = \frac{-289}{42}, z = \frac{229}{42}$

Q.66 The length of a rectangular ground is 21 m more than its breadth. Its area is 31,042 m². Its breadth (in m) is:

- Ans ☐ 1. 182
☐ 2. 151
☐ 3. 161
☒ 4. 166

Q.67 The average sale of cars by a dealer per day in the month of March, other than on Saturdays and Sundays, is 151. The average sale of cars per day on Sundays is 129. What is the average sale of cars per day on Saturdays, if the first Saturday is on the 3rd of March and average sale of cars per day for the whole month is 148?

- Ans ☐ 1. 155
☒ 2. 150
☐ 3. 145
☐ 4. 153

Q.68 According to Dadabhai Naoroji's Drain of Wealth theory, what major economic issue needed to be addressed to end India's exploitation under British rule?

- Ans**
- ☐ 1. Limited administrative participation for Indians
 - ☒ 2. Unequal economic exchange between India and Britain
 - ☐ 3. Excessive land revenue imposed on peasants
 - ☐ 4. Religious discrimination by colonial authorities

Q.69 Chetan's salary was first reduced by 40% and subsequently raised by 24%. How much percentage was his final salary lower compared to his initial salary?

- Ans**
- ☐ 1. 24%
 - ☐ 2. 40%
 - ☒ 3. 25.6%
 - ☐ 4. 9.6%

Q.70 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into 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.)
94, 375
115, 396

- Ans**
- ☐ 1. 76, 358
 - ☐ 2. 107, 389
 - ☐ 3. 81, 364
 - ☒ 4. 72, 353

Q.71 Anirudh and Brahmaji are assigned the work of constructing a wall. Anirudh can do the job in 60 hours alone where as Brahmaji can do the job three times faster. Anirudh starts the work during the first hour and Brahmaji does the work during the second hour. During the third hour both do the job simultaneously. If they continue in this fashion, how long it will take for them to complete the job?

- Ans**
- ☐ 1. 21.5 hours
 - ☐ 2. 22.5 hours
 - ☒ 3. 23 hours
 - ☐ 4. 7.5 hours

Q.72 If + means -, - means x, x means ÷, ÷ means +, then what will come in place of the question mark (?) in the following equation?

$$8-21\times3\div75+13=?$$

- Ans**
- ☐ 1. 119
 - ☐ 2. 120
 - ☐ 3. 128
 - ☒ 4. 118

Q.73 Which of the following is present only in plant cell?

- Ans**
- ☒ 1. Cell wall
 - ☐ 2. Vacuoles
 - ☐ 3. Nucleus
 - ☐ 4. Endoplasmic reticulum

Q.74 Simplify : $\frac{\sqrt[3]{5832}}{\sqrt[4]{1296}} \times \frac{3}{54} \times 168$

- Ans ☒ 1. 28
☒ 2. 18
☒ 3. 25
☒ 4. 36

Q.75 A cylindrical vessel contains 154 litres of water. If the radius of the base is 14 cm, the height (in cm) of the water column in the vessel is:

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

- Ans ☒ 1. 250 cm
☒ 2. 275 cm
☒ 3. 260 cm
☒ 4. 240 cm

Q.76 Refer to the following letter, number and symbol series and answer the question that follows.

(Left) L 8 * Q 3 \$ M ^ Y 7 & T 2 % R \$ F 6 # P @ N 9 ! K 4 @ Z ^ W (Right)

If all the symbols are dropped, which of the following will be seventh from the right?

- Ans ☒ 1. F
☒ 2. P
☒ 3. N
☒ 4. 6

Q.77 Choose the correct statements about triangles from the ones given below:

- A. A triangle can be formed with sides 9 cm, 13 cm, 3 cm.
 B. In $\triangle PQR$, if $\angle P = 50^\circ$, $\angle Q = 30^\circ$, then QR is the longest side of the triangle.
 C. Area of an equilateral triangle of side 6 cm is $18\sqrt{3} \text{ cm}^2$.
 D. In $\triangle DEF$ and $\triangle PQR$, $\angle D = \angle P$, $\angle E = \angle Q$ and $DF = PR$. Then $\triangle DEF$ is congruent to $\triangle PQR$.

- Ans ☒ 1. Only A
☒ 2. Only A, B, C
☒ 3. Only B, C, D
☒ 4. Only D

Q.78 A person standing 20 meters away from the base of a tower observes that the angle of elevation to the top of the tower is 60° . Find the height of the tower. (Rounded off to two decimal places)

- Ans ☒ 1. 34.64 m
☒ 2. 32.60 m
☒ 3. 38.38 m
☒ 4. 36.67 m

Q.79 This question is based on the following words.

MUG TOP ACE GAS

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 the English alphabetical order?

- Ans ☒ 1. 18
☒ 2. 19
☒ 3. 20

Q.80 In a 100-meter race, X runs at 5 m/s and Y at 4 m/s. How much head start should X give Y (in meters) so that the race ends in a tie?

- Ans**
- ☐ 1. 25
 - ☐ 2. 15
 - ☒ 3. 20
 - ☐ 4. 10

Q.81 In February 2025, the Union Minister of External Affairs and Heads of Missions from 61 countries visited Kaziranga National Park, located in which state of India?

- Ans**
- ☐ 1. Manipur
 - ☒ 2. Assam
 - ☐ 3. Nagaland
 - ☐ 4. Arunachal Pradesh

Q.82 A store offers a trade discount of 16% on all items. In addition, they offer a “Buy four get one free” scheme on specific items. If a customer purchases five items each marked at ₹700 and the “Buy four get one free” scheme applies, what is the total discounted price for five items, the customer has to pay?

- Ans**
- ☐ 1. ₹2305
 - ☒ 2. ₹2352
 - ☐ 3. ₹2378
 - ☐ 4. ₹2336

Q.83 Why are non-biodegradable substances harmful for the environment?

- Ans**
- ☐ 1. Can be broken down by bacteria
 - ☒ 2. Needs heat and temperature for breakdown, releases harmful chemicals
 - ☐ 3. Causes no pollution in water
 - ☐ 4. Easily mixes with soil

Q.84 Which missile system is being developed under Project Kusha to enhance India's air defence capabilities?

- Ans**
- ☐ 1. BrahMos
 - ☐ 2. MICA
 - ☒ 3. Extended Range Air Defence System
 - ☐ 4. S-400

Q.85 What should come in place of ‘?’ in the given series?

116, 121, 131, 146, 166, ?

- Ans**
- ☐ 1. 189
 - ☐ 2. 195
 - ☒ 3. 191
 - ☐ 4. 193

Q.86 Why is it important to provide dairy cattle with a sloping floor in their sheds and balanced rations in their diet?

- Ans**
- ☐ 1. To protect from parasites, and increase fibre content.
 - ☒ 2. To keep the shed dry and facilitate cleaning, and to support health and milk production.
 - ☐ 3. To keep the shed dry and facilitate cleaning, and reduce roughage intake.
 - ☐ 4. To prevent diseases and to support health and milk production.

Q.87 The internal surface area (in m^2) of an open cuboidal tank whose internal length, internal breadth and internal height are given as 3 m, 11 m, and 9 m, respectively, is:

- Ans**
- ☒ 1. 295
 - ☒ 2. 285
 - ☒ 3. 303
 - ☒ 4. 314

Q.88 Find the mode of the given data (correct to two places of decimal).

Class interval	0-6	6-12	12-18	18-24	24-30
Frequency	8	7	5	9	4

- Ans**
- ☒ 1. 20.67
 - ☒ 2. 22.45
 - ☒ 3. 19.24
 - ☒ 4. 21.36

Q.89 Which rule helps to determine the direction of force acting on a current-carrying conductor in a magnetic field?

- Ans**
- ☒ 1. Ampere's rule
 - ☒ 2. Faraday's law
 - ☒ 3. Fleming's left-hand rule
 - ☒ 4. Right-hand rule

Q.90 What is the purpose of the Draft National Sports Governance Bill, 2024, introduced by the Indian Government?

- Ans**
- ☒ 1. To eliminate traditional sports from national competitions
 - ☒ 2. To establish a framework for ethical governance and athlete welfare in sports federations
 - ☒ 3. To increase commercialization of sports in Urban and Semiurban areas
 - ☒ 4. To centralize all sports decisions under one authority

Q.91 Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

HUL 19 , MZQ 36, REV 53, WJA 70 , ?

- Ans**
- ☒ 1. BNE 88
 - ☒ 2. BOF 87
 - ☒ 3. CMD 80
 - ☒ 4. BMF 90

Q.92 The product of two consecutive natural numbers is 506. The greater of the two numbers is:

- Ans**
- ☒ 1. 17
 - ☒ 2. 23
 - ☒ 3. 18
 - ☒ 4. 21

Q.93 What lies between the sand dunes and the coast in the East Coastal Plains?

- Ans**
- ☒ 1. Deltas
 - ☒ 2. Lagoons
 - ☒ 3. Mountains
 - ☒ 4. Beaches

Q.94 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 :: ?
: ORM :: MPK : %

- Ans**
- ☐ 1. # = TTO, % = KMK
 - ☐ 2. # = MKO, % = KNI
 - ☐ 3. # = QTO, % = KPY
 - ☒ 4. # = QTO, % = KNI

Q.95 Which two elements are primarily added to soil by green manure?

- Ans**
- ☐ 1. Phosphorus and calcium
 - ☐ 2. Nitrogen and potassium
 - ☐ 3. Potassium and magnesium
 - ☒ 4. Nitrogen and phosphorus

Q.96 Which individuals actively supported Mahatma Gandhi during the Kheda Satyagraha movement?

- Ans**
- ☐ 1. Ambalal Sarabhai and Anasuya Ben
 - ☐ 2. Raj Kumar Shukla and Rajendra Prasad
 - ☒ 3. Vallabhbhai Patel and Indulal Yajnik
 - ☐ 4. Vallabhbhai Patel and Rajendra Prasad

Q.97 What should come in place of '?' in the given series?

17 30 43 56 69 ?

- Ans**
- ☐ 1. 81
 - ☐ 2. 80
 - ☐ 3. 83
 - ☒ 4. 82

Q.98 Which of the following is one of Asia's largest cattle fairs, organized at the confluence of two mighty rivers, the Ganga and Gandak?

- Ans**
- ☐ 1. Suraj Kund Craft Mela
 - ☐ 2. Flamingo Festival
 - ☒ 3. Sonapur Fair
 - ☐ 4. Thrissur Pooram

Q.99 If $(5x + 1)^3 + (x + 3)^3 + 8(3x - 4)^3 = 6(5x + 1)(x + 3)(3x - 4)$, then the value of x is:

- Ans**
- ☐ 1. $\frac{1}{4}$
 - ☐ 2. $\frac{2}{3}$
 - ☒ 3. $\frac{1}{3}$
 - ☐ 4. $\frac{1}{2}$

Q.100 In a certain code language,
A + B means 'A is the daughter 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'

Based on the above, how is E related to K if 'E+F÷G–HxK'?

- Ans
-  1. Sister
 -  2. Wife's sister
 -  3. Mother
 -  4. Wife's mother

RAILWAY BABA



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS

सीईएन - 05/25 - जेई, डीएमएस, सीएमए - CEN - 05/25 - JE, DMS, CMA



Test Date	20/02/2026
Test Time	12:45 PM - 2:15 PM
Subject	RRB JE DMS CMA

* 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.

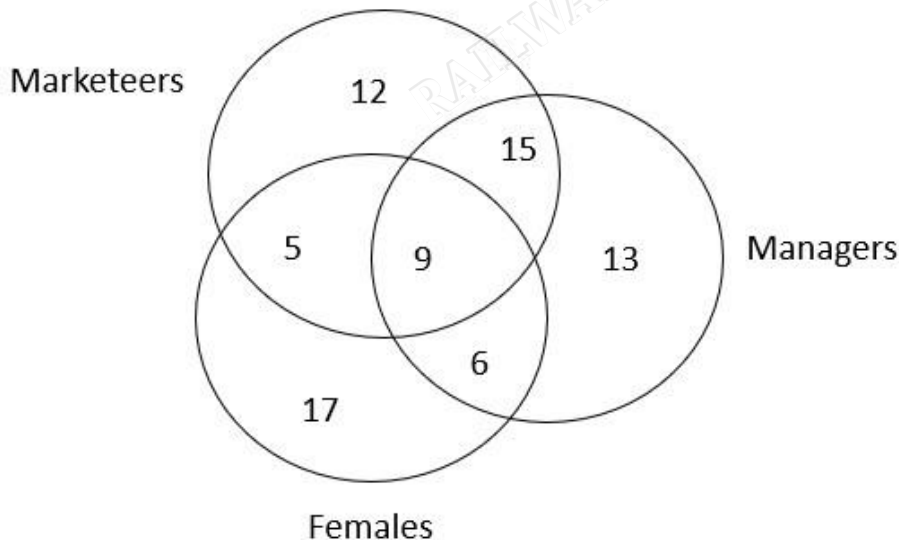
2. Chosen option on the right of the question indicates the option selected by the candidate.

Section : RRB JE DMS CMA

Q.1 Which of the following best supports the concept that matter is made-up of particles?

- Ans** ☒ 1. A drop of ink spreads uniformly in water
- ☒ 2. Water boils at 100°C
- ☒ 3. Ice melts to form water
- ☒ 4. Metals conduct electricity

Q.2 Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)



How many managers are there?

- Ans** ☒ 1. 44
- ☒ 2. 42
- ☒ 3. 43
- ☒ 4. 41

Q.3 A room heater and an electric bulb both convert electrical energy to heat, but why does only the bulb emit significant visible light?

- Ans** ☒ 1. The bulb's filament reaches a higher temperature, emitting visible light
- ☒ 2. The heater uses magnetic effect instead of heating effect
- ☒ 3. The heater is made of a different material
- ☒ 4. The circuit design is different

Q.4 Find the LCM of 8, 12, and 20.

- Ans**
- ☐ 1. 180
 - ☐ 2. 150
 - ☒ 3. 120
 - ☐ 4. 60

Q.5 Which of the following statements regarding the Namo Drone Didi scheme is/are correct?

1. It is a Central Sector Scheme for providing drones to Women Self Help Groups for the period from 2024-25 to 2025-26 with an outlay of ₹1,261 crore.
2. The scheme aims to provide drones to 15,000 selected Women Self Help Groups for providing rental services to farmers for agriculture purposes.
3. Under the scheme, Women Self Help Groups receive substantial financial assistance, covering 80% of the drone and accessory costs, up to ₹8 lakh.

- Ans**
- ☐ 1. Only 3
 - ☒ 2. 1, 2 and 3
 - ☐ 3. Only 2 and 3
 - ☐ 4. Only 1 and 2

Q.6 According to a circular issued by the Union Shipping Ministry in April 2025, what is the recalculated length of India's coastline using the new methodology of calculation?

- Ans**
- ☐ 1. 12520.73 km
 - ☒ 2. 11098.81 km
 - ☐ 3. 15416.6 km
 - ☐ 4. 9516.6 km

Q.7 What should come in place of '?' in the given series?

145 129 113 97 81 ?

- Ans**
- ☐ 1. 64
 - ☐ 2. 61
 - ☐ 3. 63
 - ☒ 4. 65

Q.8 Which of the following is NOT correctly matched, with regard to plant and animal cells?

- Ans**
- ☐ 1. Plastids - Absent in animal cells
 - ☐ 2. Vacuoles - Very large and present in plant cells
 - ☐ 3. Plastids - Present in plant cells
 - ☒ 4. Cell wall - Present in animal cells

Q.9 The average of the first 18 positive multiples of 14 is:

- Ans**
- ☐ 1. 18
 - ☐ 2. 126
 - ☒ 3. 133
 - ☐ 4. 14

Q.10 In a parallel combination of three resistors, which statement correctly describes the total current in the circuit?

- Ans**
- ☐ 1. It is the average of the currents through each resistor
 - ☐ 2. It is the same as the current through each resistor
 - ☐ 3. It is equal to the current through the resistor with the lowest resistance
 - ☒ 4. It is equal to the sum of the currents through each resistor

Q.11 Which of the following statements is/are correct about a non-Constitutional body, Reserve Bank of India (RBI)?

- (1) RBI performs several crucial functions like regulating and supervising the banking system, managing the currency and credit system and managing foreign exchange reserves.
(2) RBI was established on April 1, 1935 in accordance with the provisions of the Reserve Bank of India Act, 1934.
(3) The Central Office of the RBI was initially established in Kolkata but was permanently moved to Mumbai in 1937

Ans ☒ 1. (1) and (2) only
☒ 2. (1) only
☒ 3. (2) and (3) only
☒ 4. (1), (2) and (3)

Q.12 Find the volume of a hemisphere, the circumference of whose base is 35.2 cm (rounded off to two places of decimals; use $\pi = \frac{22}{7}$).

Ans ☒ 1. 369.34 cm³
☒ 2. 363.56 cm³
☒ 3. 361.25 cm³
☒ 4. 367.96 cm³

Q.13 Libia Lobo Sardesai, who was honoured with the Padma Shri In January 2025, is known for her contribution to which of the following causes?

Ans ☒ 1. Promotion of Konkani literature
☒ 2. Women's education in coastal India
☒ 3. Goa's liberation struggle
☒ 4. Environmental conservation in Western Ghats

Q.14 A total profit of ₹14,500 is to be distributed amongst A, B, and C such that A : B = 16 : 3 and B : C = 6 : 20. The share (in ₹) of C in the profit is:

Ans ☒ 1. 5,100
☒ 2. 5,000
☒ 3. 4,950
☒ 4. 4,850

Q.15 Which form of nationalist protest emerged in response to the Partition of Bengal in 1905 that integrated economic, social, and political action?

Ans ☒ 1. Pursuing constitutional agitation within legislative councils
☒ 2. Submitting petitions to the British Parliament for reversal
☒ 3. Boycotting British goods and promoting indigenous industries
☒ 4. Organising armed resistance against colonial authorities

Q.16 A man, 1.8 m tall, is standing on a 1.0 m high platform near its edge, to observe the top of a building. The building is at distance of $25\sqrt{3}$ m away from the platform. The angle of elevation from his eye to the top of the building is 30° . The height (in m) of the building is:

Ans ☒ 1. 25.8
☒ 2. 27.8
☒ 3. 26.8
☒ 4. 28.8

Q.17 Which of the following is an example of membrane bound little structures present in a cell?

- Ans**
- ☒ 1. Cytoplasm
 - ☒ 2. Lysosome
 - ☒ 3. Nucleoplasm
 - ☒ 4. Ribosome

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

- Ans**
- ☒ 1. Four
 - ☒ 2. Two
 - ☒ 3. One
 - ☒ 4. Three

Q.19 A security mirror in a store is required to provide a wide field of view and always form diminished, upright images regardless of the position of objects. Which type of mirror and principle should be used for its design?

- Ans**
- ☒ 1. Plane mirror for undistorted images
 - ☒ 2. Concave mirror using the mirror formula for real, inverted images
 - ☒ 3. Concave mirror for magnification
 - ☒ 4. Convex mirror using the mirror formula for virtual, diminished images

Q.20 A shopkeeper bought six identical mobile phones for ₹45,000. He sold two of these mobile phones for ₹42,000. Find his gain percentage.

- Ans**
- ☒ 1. 178%
 - ☒ 2. 179%
 - ☒ 3. 180%
 - ☒ 4. 181%

Q.21 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into 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.)
124, 232
107, 215

- Ans**
- ☒ 1. 178, 276
 - ☒ 2. 153, 271
 - ☒ 3. 136, 244
 - ☒ 4. 181, 288

Q.22 Which international agreement aims to limit global temperature rise below 2°C?

- Ans**
- ☒ 1. Paris Agreement
 - ☒ 2. Montreal Protocol
 - ☒ 3. Kyoto Protocol
 - ☒ 4. Rio Declaration

Q.23 Chloroplast is present in which of the following parts of a cell?

- Ans**
- ☒ 1. Nucleoplasm
 - ☒ 2. Peroxisome
 - ☒ 3. Cytoplasm
 - ☒ 4. Endoplasmic reticulum

Q.24 Refer to the following letter, number and symbol series and answer the question that follows.

(Left) K 6 & M 4 @ R 7 ! F ^ N \$ Q 8 # T @ P 9 * Y 3 & Z 2 \$ L ^ W (Right)

If all the letters are dropped, which of the following will be fifth from the right?

- Ans
- ☒ 1. &
 - ☒ 2. 3
 - ☒ 3. 9
 - ☒ 4. *

Q.25 Which of the following does NOT define the motion of a pendulum swinging back and forth?

- Ans
- ☒ 1. The pendulum exhibits accelerated motion
 - ☒ 2. The pendulum exhibits periodic motion
 - ☒ 3. The pendulum exhibits uniform motion
 - ☒ 4. The pendulum exhibits non-uniform motion

Q.26 The list price of a washing machine is ₹87,200. It is sold to a retailer after two successive discounts of 9% and 50%. The retailer wants to earn a profit of 25% on his cost after allowing a 48% discount (on its new list price) to the customer. At what price should he list the washing machine?

- Ans
- ☒ 1. ₹95,375
 - ☒ 2. ₹95,333
 - ☒ 3. ₹95,434
 - ☒ 4. ₹95,476

Q.27 Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

IL - GJ - DF
NQ - LO - IK

- Ans
- ☒ 1. PS - NQ - KL
 - ☒ 2. OS - NQ - KL
 - ☒ 3. OS - NR - KL
 - ☒ 4. PS - NQ - KM

Q.28 The price of fuel decreases by 55%, 55% and 30% in three successive months, but increases by 50% in the fourth month. What is the percentage increase/decrease in the price of fuel in the fourth month as compared to its original price?
[Give your answer correct to two places after decimal.]

- Ans
- ☒ 1. Decreases by 81.55%
 - ☒ 2. Increases by 75.63%
 - ☒ 3. Decreases by 78.74%
 - ☒ 4. Increases by 76.66%

Q.29 Diwakar starts from Point A and drives 8 km towards West. He then takes a left turn, drives 6 km, turns left and drives 11 km. He then takes a left turn and drives 9 km. He takes a final left turn, drives 3 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90 degrees turns only unless specified)

- Ans
- ☒ 1. 3 km to the south
 - ☒ 2. 2 km to the north
 - ☒ 3. 2 km to the south
 - ☒ 4. 3 km to the north

Q.30 In a redox reaction, what is the role of a 'reducing agent'?

- Ans**
- ☐ 1. It is a catalyst that speeds up the reaction.
 - ☐ 2. It is an agent that helps other substances to be oxidized.
 - ☒ 3. It is a substance that causes reduction and itself gets oxidized.
 - ☐ 4. It is a substance that only participates in decomposition reactions.

Q.31 Sujit is three times as old as his son, and his daughter is 3 years younger than the son. If the sum of the ages of these three people 3 years ago from now was 88 years, then Sujit's present age (in years) is

- Ans**
- ☐ 1. 48
 - ☐ 2. 66
 - ☐ 3. 56
 - ☒ 4. 60

Q.32 Suman's earnings in a month are five-sevenths of Meera's. In the next month, Meera's earnings become five-eighths of Suman's previous month earnings. By what percent are Meera's current earnings less than Suman's current earnings?

- Ans**
- ☐ 1. 20%
 - ☒ 2. 37.5%
 - ☐ 3. 35.5%
 - ☐ 4. 25%

Q.33 Which Indian actor has been officially named as 'Fit India Icon' by Union Sports Minister Mansukh Mandaviya in March 2025?

- Ans**
- ☐ 1. Shahid Kapoor
 - ☒ 2. Ayushmann Khurrana
 - ☐ 3. Hrithik Roshan
 - ☐ 4. Allu Arjun

Q.34 Which of the following statements is correct regarding the storage of grains?

- Ans**
- ☐ 1. Abiotic factors responsible for losses in stored grains are temperature, rodents and fungi.
 - ☐ 2. Biotic factors responsible for losses in stored grains are insects, rodents and moisture.
 - ☒ 3. Biotic factors responsible for losses in stored grains are insects, rodents and fungi.
 - ☐ 4. Storage losses in agriculture produce can be very low.

Q.35 X people were given a contract for doing a piece of work in 18 days. 2 people did not turn up to work due to sickness, and the rest of the people completed the work in 27 days. What is the value of X?

- Ans**
- ☒ 1. 6
 - ☐ 2. 14
 - ☐ 3. 10
 - ☐ 4. 2

Q.36 The difference between compound interest, compounded annually, and simple interest for 3 years at a rate of 20% per annum is ₹256. What is the principal lent?

- Ans**
- ☐ 1. ₹1,000
 - ☒ 2. ₹2,000
 - ☐ 3. ₹3,000
 - ☐ 4. ₹4,000

Q.37 Three persons, A, B and C, took part in a 2000 m race. To reach the finish line at the same time, A can give to B a start of 500 m and to C a start of 300 m. How many metres of start can C give to B in a 3400 m race?

- Ans**
- ☐ 1. 800
 - ☐ 2. 200
 - ☒ 3. 400
 - ☐ 4. 600

Q.38 If $x + \frac{1}{17x} = 3$, then the value of $17x^3 + \frac{1}{289x^3}$ is:

- Ans**
- ☒ 1. 450
 - ☐ 2. 345
 - ☐ 3. 435
 - ☐ 4. 534

Q.39 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into 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.)

(13,22,2)
(4,26,15)

- Ans**
- ☒ 1. (23,43,13)
 - ☐ 2. (13,35,14)
 - ☐ 3. (25,8,6)
 - ☐ 4. (1,22,5)

Q.40 Monthly income of Mohit is ₹12800 and his monthly expenditure is ₹ 4000. If his income is decreased by 25% and expenditure is decreased by ₹ 1000, then find the decrease in his monthly savings?

- Ans**
- ☐ 1. ₹ 2600
 - ☐ 2. ₹ 2800
 - ☐ 3. ₹ 2400
 - ☒ 4. ₹ 2200

Q.41 What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$16 \div 2 + 22 \times 2 - 8 = ? + 3$$

- Ans**
- ☐ 1. 28
 - ☐ 2. 31
 - ☒ 3. 32
 - ☐ 4. 34

Q.42 Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. You have to decide which conclusions logically follow(s) from the given statements.

Statements:

All rabbits are mats.

All rabbits are zebras.

All zebras are lamps.

Conclusions:

(I): All rabbits are lamps.

(II): Some zebras are mats.

- Ans**
- ☐ 1. Neither conclusion (I) nor (II) follows
 - ☐ 2. Only conclusion (II) follows
 - ☐ 3. Only conclusion (I) follows
 - ☒ 4. Both conclusions (I) and (II) follow

Q.43 Which statement is **INCORRECT** regarding prokaryotic organism?

- Ans**
- ☒ 1. Nuclear region is defined
 - ☐ 2. Primitive form of organism
 - ☐ 3. Membrane-bound organelles are absent
 - ☐ 4. Single chromosome is present

Q.44 Based on the alphabetical order, three of the following four 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. GFI
 - ☒ 2. MMO
 - ☐ 3. ZYB
 - ☐ 4. QPS

Q.45 Which statement best explains why blood cells are **NOT** found in the urine of a healthy person?

- Ans**
- ☐ 1. They are broken down in the kidneys
 - ☒ 2. They are too large to pass through glomerular pores
 - ☐ 3. They are reabsorbed in tubules
 - ☐ 4. They are filtered and returned to the blood

Q.46 P and Q together can fill a cistern with water in 24 hours. If P alone can fill the cistern with water in 72 hours, then in how many hours will Q alone fill three-fourth of the same cistern with water?

- Ans**
- ☐ 1. 54
 - ☐ 2. 28
 - ☒ 3. 27
 - ☐ 4. 55

Q.47 Which of the following will diffuse slowest in air?

- Ans**
- ☐ 1. Oxygen
 - ☐ 2. Hydrogen
 - ☐ 3. Ammonia
 - ☒ 4. Chlorine

Q.48 When magnesium reacts with oxygen to form magnesium oxide, which of the following statements is NOT correct?

- Ans**
- ☐ 1. Magnesium loses electrons to form Mg^{2+} ions.
 - ☒ 2. Magnesium loses electrons to form Mg^{3+} ions.
 - ☐ 3. The compound formed contains ionic bonds.
 - ☐ 4. Oxygen gains electrons to form O^{2-} ions.

Q.49 The 7-digit number 57A001B is divisible by 9. What is the minimum value of (A + B)?

- Ans**
- ☒ 1. 5
 - ☐ 2. 8
 - ☐ 3. 3
 - ☐ 4. 2

Q.50 What role does the earth wire play in the safety of domestic appliances with metallic bodies?

- Ans**
- ☐ 1. It controls the current flow
 - ☐ 2. It prevents the fuse from melting
 - ☐ 3. It increases the appliance's voltage
 - ☒ 4. It provides a low-resistance path for leakage current

Q.51 Which combination best represents essential life processes for maintaining an individual organism?

- Ans**
- ☒ 1. Nutrition, respiration, transportation and excretion
 - ☐ 2. Reproduction, variation, heredity and adaptation
 - ☐ 3. Locomotion, feeding, communication and defence
 - ☐ 4. Growth, movement, reproduction and response

Q.52 This question is based on the five, three-digit numbers given below.
(Left) 857 329 417 628 751 (Right)
(Example- 697 – First digit = 6, second digit = 9 and third digit = 7)

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

- Ans**
- ☐ 1. 14
 - ☐ 2. 17
 - ☒ 3. 16
 - ☐ 4. 15

Q.53 What is it called when the government sells part of its share in public sector companies to the public?

- Ans**
- ☐ 1. Nationalisation
 - ☐ 2. Globalisation
 - ☒ 3. Disinvestment
 - ☐ 4. Industrialisation

Q.54 Each of B, Q, C, N, X, U and M has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week. Only two people have exams before Q. Only one person has the exam after N. B has the exam before U but after Q. X has the exam immediately before C. M does not have the exam before U. How many people have exams between U and X?

- Ans**
- ☐ 1. Two
 - ☒ 2. Three
 - ☐ 3. One
 - ☐ 4. Four

Q.55 A cyclist increases her speed from 6 m/s to 12 m/s in 3 seconds on a straight road. What is her acceleration during this period?

- Ans**
- ✓ 1. 2 m/s²
 - ✗ 2. 3 m/s²
 - ✗ 3. 6 m/s²
 - ✗ 4. 0.5 m/s²

Q.56 C, H, A, N, G and E, each have a different age. C's age is 21 years, and C is younger than H and older than A. Four people have ages less than 21 years. Only one person is younger than N. G is not the youngest. G is younger than A. Who is the youngest?

- Ans**
- ✗ 1. N
 - ✗ 2. G
 - ✓ 3. E
 - ✗ 4. A

Q.57 Match the tobacco practice with the long-term consequences of consuming it.

	Column A		Column B
(a)	Cigarette smoking	(i)	Oral cancer
(b)	Chewing tobacco	(ii)	Emphysema
(c)	Passive smoking	(iii)	Respiratory infections
(d)	Long-term nicotine exposure	(iv)	Cardiovascular disorders

- Ans**
- ✓ 1. a–ii, b–i, c–iv, d–iii
 - ✗ 2. a–iv, b–ii, c–i, d–iii
 - ✗ 3. a–ii, b–i, c–iii, d–iv
 - ✗ 4. a–i, b–iii, c–ii, d–iv

Q.58 A solid sphere is melted and recast into 18 identical cones, each having a base radius of 3 cm and height of 18 cm. Find the radius of the sphere.

- Ans**
- ✓ 1. 9 cm
 - ✗ 2. 10 cm
 - ✗ 3. 7 cm
 - ✗ 4. 8 cm

Q.59 Let a and b be roots of the equation $x^2 - 7x + c = 0$, and the roots of the equation $x^2 - dx + 216 = 0$ are a^2b and b^2a . The value of d is ____.

- Ans**
- ✗ 1. 48
 - ✓ 2. 42
 - ✗ 3. 45
 - ✗ 4. 40

Q.60 Why do wet clothes dry faster when spread out?

- Ans**
- ✗ 1. Clothes become hotter
 - ✗ 2. Water escapes faster due to sunlight
 - ✓ 3. Surface area is increased
 - ✗ 4. Water boils off

Q.61 Simplify: $52 - \{38 \div (4 \times 7 - 9)\}$

- Ans**
- ✓ 1. 50
 - ✗ 2. 46
 - ✗ 3. 55
 - ✗ 4. 57

Q.62 Why is nitrogen gas used to prevent oxidation in bags containing foods such as chips?

Ans  1. Nitrogen gas makes chips crispier.

 2. Nitrogen gas inhibits oxidation by replacing oxygen.

 3. Nitrogen gas accelerates oxidation.

 4. Nitrogen gas enhances the taste of the food.

Q.63 A is faster than B. In a 2500 m race, A gives B a start of 200 meters. A runs at 25 m/s. Who wins and by how much if B runs at 23 m/s?

Ans  1. They finish together

 2. A wins by 50 meters

 3. B wins by 100 meters

 4. A wins by 100 meters

Q.64 O and C are respectively the orthocentre and the circumcentre of an acute angled triangle $\triangle PQR$. $\angle QCR = 138^\circ$. A perpendicular PM is dropped from P on side QR. If $\angle PQR = 52^\circ$, what is the degree measure of $\angle RPM$?

Ans  1. 38

 2. 42

 3. 69

 4. 31

Q.65 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(14, 12, 168)
(16, 13, 208)

Ans  1. (19, 11, 209)

 2. (17, 13, 224)

 3. (18, 14, 262)

 4. (15, 14, 220)

Q.66 A cyclic compound that contains only single bonds is classified as:

Ans  1. Aliphatic

 2. Aromatic

 3. Saturated

 4. Unsaturated

Q.67 What should come in place of the '?' in the given series, based on the English alphabetical order?

PJL OIK NHJ MGI ?

Ans  1. LFH

 2. LEH

 3. LFG

 4. LEG

Q.68 In a certain code language,
A + B means 'A is the daughter 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'

Based on the above, how is E related to K if 'E – F + G ÷ H x K'?

- Ans**
- ☒ 1. Wife's brother
 - ☐ 2. Wife's father
 - ☐ 3. Brother
 - ☐ 4. Father

Q.69 Which of the following irrigation methods leads to the least wastage of water?

- Ans**
- ☐ 1. Furrow irrigation
 - ☐ 2. Flood irrigation
 - ☒ 3. Drip irrigation
 - ☐ 4. Sprinkler irrigation

Q.70 In a certain code,
'cracking lame jokes' is coded as 'kt vs fm'
'cracking colourful fireworks' is coded as 'fi ye kt'
'lame but colourful' is coded as 'vs xc ye'
(all the codes are two letter coded only)
What is the possible code for 'fireworks lame'?

- Ans**
- ☒ 1. fi vs
 - ☐ 2. fm ye
 - ☐ 3. kt xc
 - ☐ 4. fm xc

Q.71 In a certain code,
'blue pen write' is coded as 'ka tu re'
'red pen draw' is coded as 'mo tu si'
'blue brush draw' is coded as 'ka lo si'
(all the codes are two letter coded only)
What is the code for "blue pen"?

- Ans**
- ☐ 1. lo si
 - ☐ 2. re ka
 - ☐ 3. mo lo
 - ☒ 4. ka tu

Q.72 MU 11 is related to OY -2 in a certain way. In the same way, PQ 10 is related to RU -3. To which of the following is UR 14 related, following the same logic?

- Ans**
- ☒ 1. WV 1
 - ☐ 2. WW 3
 - ☐ 3. WX 1
 - ☐ 4. VW 3

Q.73 A device operates at 2 amperes current and 220 volts potential difference for 5 hours. How much electrical energy does it consume, expressed in kilowatt hours (kWh)?

- Ans**
- ☒ 1. 2.2 kWh
 - ☐ 2. 0.22 kWh
 - ☐ 3. 5 kWh
 - ☐ 4. 1.1 kWh

Q.74 Who was honoured with the Lata Deenanath Mangeshkar Award in April 2025 for his contributions to education and nation-building?

- Ans**
- ☒ 1. Kumar Mangalam Birla
 - ☐ 2. Alakh Pandey
 - ☐ 3. Anand Mahindra
 - ☐ 4. Narayana Murthy

Q.75 Why do gases exert pressure on the walls of the container?

- Ans**
- ☐ 1. Gas particles attract the container walls strongly
 - ☒ 2. Gas particles move randomly and strike the walls
 - ☐ 3. Gas particles stay fixed inside the container
 - ☐ 4. Gas particles possess very low kinetic energy

Q.76 What should come in place of the question mark (?) in the given series?

6 19 45 97 201 ?

- Ans**
- ☐ 1. 400
 - ☐ 2. 406
 - ☐ 3. 403
 - ☒ 4. 409

Q.77 According to the law of constant proportions, the compound in which hydrogen and oxygen are present in a fixed mass ratio of 1:8 is:

- Ans**
- ☐ 1. Methane
 - ☐ 2. Ammonia
 - ☒ 3. Water
 - ☐ 4. Hydrogen peroxide

Q.78 A man bought two types of apples, one at ₹2 for 3 apples and the other at ₹6 per apple. He purchased an equal number of each type and sold all the apples at ₹6 per apple. Find his percentage profit.

- Ans**
- ☐ 1. 78%
 - ☒ 2. 80%
 - ☐ 3. 77%
 - ☐ 4. 75%

Q.79

The value of $\sqrt{\left(17 + \sqrt{\left(57 + \sqrt{\left(45 + \sqrt{\left(7 + \sqrt{(81)}\right)}\right)}\right)}\right)}$ is:

- Ans**
- ☐ 1. 7
 - ☒ 2. 5
 - ☐ 3. 1
 - ☐ 4. 2

Q.80 In a seminar, 5 teachers and 7 students spent money on books. The average spending of all of them together was ₹260. The average spending of the teachers alone was ₹400. Find the average spending amount of the students.

- Ans**
- ☒ 1. ₹160
 - ☐ 2. ₹180
 - ☐ 3. ₹120
 - ☐ 4. ₹140

Q.81 A and B jointly start a business. The investment of A is equal to three times the investment of B. Find the share of A in the annual profit of ₹55204.

- Ans**
- ☒ 1. ₹41,403
 - ☐ 2. ₹40,403
 - ☐ 3. ₹43,403
 - ☐ 4. ₹42,403

Q.82 A low platelet count may lead to _____.

- Ans**
- ☐ 1. Anemia
 - ☒ 2. Excessive bleeding
 - ☐ 3. Fever
 - ☐ 4. Infection

Q.83 An object is placed on a shelf 2 m above the ground. If the shelf is raised to 4 m, what happens to the potential energy of the object?

- Ans**
- ☒ 1. The potential energy doubles
 - ☐ 2. The potential energy remains the same
 - ☐ 3. The potential energy halves
 - ☐ 4. The potential energy triples

Q.84 H is the brother of A. R is the sister of K. P is the son of K. K is the wife of A. How is P related to H?

- Ans**
- ☐ 1. Sister's son
 - ☒ 2. Brother's son
 - ☐ 3. Father's son
 - ☐ 4. Brother

Q.85 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 carefully and decide the appropriate answer.

Six people, A, B, C, D, E and F, are sitting in a straight line facing north. How many people sit to the right of D?

I: No one sits to the right of F. Only two people sit between F and B.

II: D sits to the immediate left of F. E sits to the immediate left of B.

- 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.86 Which of the following rivers originates from the Amarkantak Plateau?

- Ans**
- ☒ 1. Narmada
 - ☐ 2. Godavari
 - ☐ 3. Mahanadi
 - ☐ 4. Krishna

Q.87 Refer to the following letter, number and symbol series and answer the question that follows.

(Left) % P N G @ 8 7 % 6 # \$ * L C T 1 @ # 2 Z 8 E 9 (Right)

If all the numbers are dropped from the series, which of the following will be fifth from the right?

- Ans**
- ☐ 1. @
 - ☐ 2. #
 - ☐ 3. Z
 - ☒ 4. T

Q.88 The length of a rectangular field is 34 m more than its breadth. Its area is 5040 m^2 . Its breadth (in m) is:

- Ans**
- ☐ 1. 37
 - ☒ 2. 56
 - ☐ 3. 44
 - ☐ 4. 54

Q.89 David has borrowed an amount of ₹440000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 6% per annum after 2 years?

- Ans**
- ☒ 1. 52800
 - ☐ 2. 54800
 - ☐ 3. 53800
 - ☐ 4. 51800

Q.90 Which of the following provisions in the Indian Constitution deals with the duty of the State to separate the judiciary from the executive?

- Ans**
- ☐ 1. Article 51
 - ☒ 2. Article 50
 - ☐ 3. Article 44
 - ☐ 4. Article 48A

Q.91 The harmonic mean of 4, 8 and 16 is (Rounded off to four decimal places)

- Ans**
- ☐ 1. 6.5871
 - ☐ 2. 6.5817
 - ☐ 3. 6.8517
 - ☒ 4. 6.8571

Q.92 Which of the following days was observed on 21st May 2025?

- Ans**
- ☐ 1. National Human Rights Day
 - ☐ 2. National Voters Day
 - ☒ 3. National Anti-terrorism day
 - ☐ 4. Indian Navy Day

Q.93 Which property correctly distinguishes liquids from solids?

- Ans**
- ☐ 1. Liquids cannot diffuse into other substances
 - ☐ 2. Liquids are completely incompressible in nature
 - ☐ 3. Liquids have fixed shape but no fixed volume
 - ☒ 4. Liquids have fixed volume but no fixed shape

Q.94 The following data represents the number of goals scored by a football team in 10 matches.

2, 3, 1, 4, 2, 5, 2, 3, 2, 4

The mode of the above data is x. If one more match is played, and the team scores 3 goals, what will be the difference between the previous mode and the new mode?

- Ans**
- ☐ 1. 1
 - ☐ 2. 3
 - ☐ 3. 2
 - ☒ 4. 0

Q.95 A ball initially at rest is dropped from a height and takes 5 seconds to reach the ground. What is the average speed during its fall? ($g = 10 \text{ m/s}^2$)

- Ans**
- ☐ 1. 20 m/s
 - ☐ 2. 10 m/s
 - ☐ 3. 50 m/s
 - ☒ 4. 25 m/s

Q.96 Seven boxes B, C, D, P, Q, R and S are kept one over the other but not necessarily in the same order. Only three boxes are kept above B. Only one box is kept between P and B. Only three boxes are kept between P and R. R is kept at some place above B. D is kept immediately below R. Q is kept at one of the places above S. C is not kept immediately above or below P. Which box is kept at the lowermost position?

- Ans**
- ☐ 1. P
 - ☒ 2. S
 - ☐ 3. C
 - ☐ 4. R

Q.97 What was the name of the headquarters of the Ghadar Party?

- Ans**
- ☐ 1. Bharat Ashram
 - ☐ 2. Hindustan Ashram
 - ☒ 3. Yugantar Ashram
 - ☐ 4. Azad Ashram

Q.98 Which company developed India's first indigenous surgical robotic system that recently performed two world-first robotic cardiac telesurgeries with an ultra-low latency of just 35–40 milliseconds?

- Ans**
- ☐ 1. Intuitive Surgical India
 - ☐ 2. Medtronic India
 - ☒ 3. SS Innovations
 - ☐ 4. Siemens Healthineers India

Q.99 Which of the following is a musical instrument that consists of a set of glass, metal or clay bowls, each having varying levels of water?

- Ans**
- ☐ 1. Sitar
 - ☒ 2. Jaltarang
 - ☐ 3. Shehnai
 - ☐ 4. Sarod

Q.100 When a light ray enters a rectangular glass slab obliquely from air, what happens to its direction at the first interface?

- Ans**
- ☐ 1. It bends away from the normal
 - ☐ 2. It travels straight
 - ☒ 3. It bends towards the normal
 - ☐ 4. It gets reflected back

RAILWAY BABA



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 05/25 - जेई, डीएमएस, सीएमए - CEN - 05/25 - JE, DMS, CMA



Test Date	20/02/2026
Test Time	4:30 PM - 6:00 PM
Subject	RRB JE DMS CMA

* 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

Q.1 The sum of the squares of two consecutive even natural numbers is 3700. The sum of the numbers is:

- Ans
- ☒ 1. 80
 - ☒ 2. 72
 - ☒ 3. 86
 - ☒ 4. 96

Q.2 What was a consequence of the economic structure in India between 1947 and 1991?

- Ans
- ☒ 1. High levels of foreign direct investment
 - ☒ 2. Slow industrial growth due to heavy regulation and protectionism
 - ☒ 3. Full privatization of the public sector
 - ☒ 4. Rapid technological advancement in all sectors

Q.3 The value of $\sqrt{90 + \sqrt{(97 + \sqrt{(4 + \sqrt{(19 + \sqrt{(36)})})})})}$ is:

- Ans
- ☒ 1. 10
 - ☒ 2. 9
 - ☒ 3. 7
 - ☒ 4. 12

Q.4 A passenger in a moving car feels a jerk backward when the car suddenly starts. How does the first law of motion explain this experience?

- Ans
- ☒ 1. The passenger tends to remain at rest while the car moves forward, showing inertia.
 - ☒ 2. Friction from the seat creates the backward jerk.
 - ☒ 3. The passenger is pushed backward by the air inside the car.
 - ☒ 4. The seat pushes the passenger forward, causing the sensation.

Q.5 P gives Q a head-start of 10 seconds in a 600 m race, but both finish the race at the same time. Find the time taken by P to finish the race if the speed of Q is 4 m/sec.

- Ans
- ✓ 1. 140 Seconds
 - ✗ 2. 142 Seconds
 - ✗ 3. 146 Seconds
 - ✗ 4. 144 Seconds

Q.6 Refer to the two statements given below and choose the CORRECT option.
Statement A: While writing the chemical formula of a compound, the total positive and negative charges must balance each other.
Statement B: Balancing valencies ensures that the compound formed is electrically neutral.

- Ans
- ✗ 1. Statement A is incorrect but B is correct.
 - ✓ 2. Both statements A and B are correct.
 - ✗ 3. Both statements A and B are incorrect.
 - ✗ 4. Statement A is correct but B is incorrect.

Q.7 What should come in place of the '?' in the given series, based on the English alphabetical order?

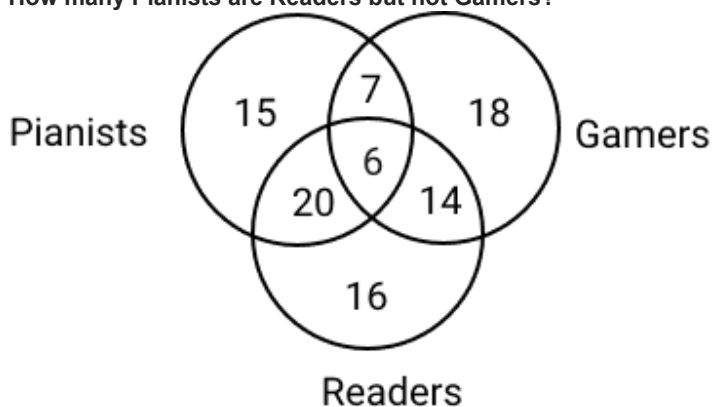
DIB FKD HMF JOH ?

- Ans
- ✓ 1. LQJ
 - ✗ 2. LRI
 - ✗ 3. LQI
 - ✗ 4. LRJ

Q.8 An electric refrigerator has a power rating of 500 W and is used for 6 hours each day. If the cost of electrical energy is ₹4.00 per kilowatt-hour, what will be the total cost of operating the refrigerator for 30 days?

- Ans
- ✓ 1. ₹360
 - ✗ 2. ₹240
 - ✗ 3. ₹180
 - ✗ 4. ₹300

Q.9 Study the given Venn diagram carefully and answer the question. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)
How many Pianists are Readers but not Gamers?



- Ans
- ✗ 1. 14
 - ✗ 2. 15
 - ✗ 3. 18
 - ✓ 4. 20

Q.10 In a certain code,
'boy likes games' is coded as 'tu vw xy'
'girl likes music' is coded as 'za vw rs'
'music games hobby' is coded as 'rs xy pq'

Q. What is the code for hobby ?

- Ans**
- ☒ 1. vw
 - ☒ 2. rs
 - ☒ 3. pq
 - ☒ 4. xy

Q.11 Why is alcohol considered a cleaner fuel than petrol?

- Ans**
- ☒ 1. It produces less smoke
 - ☒ 2. It burns at low temperature
 - ☒ 3. It burns without oxygen
 - ☒ 4. It gives higher energy

Q.12 A and B can complete a work in 15 days and 10 days, respectively. They started doing the work together but after 2 days, B had to leave, and A completed the remaining work alone. The whole work was completed in _____ days.

- Ans**
- ☒ 1. 10
 - ☒ 2. 13
 - ☒ 3. 12
 - ☒ 4. 11

Q.13 Which Fundamental Duty was added by the 86th Constitutional Amendment in 2002?

- Ans**
- ☒ 1. To provide opportunities for education to children aged 6–14 years
 - ☒ 2. To promote harmony among all people of India
 - ☒ 3. To safeguard public property
 - ☒ 4. To uphold and protect the sovereignty of India

Q.14 Seven people, A, L, M, I, R, H and S, are sitting in a row, facing north.
Only A sits to the left of S. Only four people sit between A and H. Only I sits between L and R and L is not an immediate neighbor of H.
Who sits at the extreme right of the line?

- Ans**
- ☒ 1. A
 - ☒ 2. H
 - ☒ 3. M
 - ☒ 4. R

Q.15 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. LN - CE
 - ☒ 2. QS - IK
 - ☒ 3. XZ - PR
 - ☒ 4. SU - KM

Q.16 Who is the chairperson of the RBI's committee formed to develop the Framework for Responsible and Ethical AI (FREE-AI) in the financial sector as of December 2024?

- Ans**
- ✓ 1. Professor Pushpak Bhattacharyya from IIT Bombay
 - ✗ 2. Dr. Rajeev Chandrasekhar from Ministry of Electronics
 - ✗ 3. Dr. Krishnamurthy Subramanian from IMF Board
 - ✗ 4. Professor K. VijayRaghavan from Office of PSA

Q.17 Which material can be magnetised using the strong magnetic field inside a solenoid?

- Ans**
- ✓ 1. Soft iron
 - ✗ 2. Aluminum
 - ✗ 3. Plastic
 - ✗ 4. Copper

Q.18 Consider the reaction:



Which of the following statements is / are correct?

- (A) The reaction represents the oxidation of a primary alcohol to a carboxylic acid.
- (B) Alkaline KMnO_4 acts as an oxidising agent.
- (C) Alkaline KMnO_4 acts as a reducing agent.

- Ans**
- ✗ 1. Only B
 - ✗ 2. A, B and C
 - ✗ 3. Only A and C
 - ✓ 4. Only A and B

Q.19 A trader gives 8% discount on the marked price of an article and gives 3 articles free for buying 18 articles and gains 38% in the entire transaction. Assuming a customer pays for 18 articles, the marked price of an article is what percent more than its cost price?

- Ans**
- ✗ 1. 70%
 - ✓ 2. 75%
 - ✗ 3. 85%
 - ✗ 4. 79%

Q.20 In an election between two candidates, 86% of the registered voters cast their votes and 6% of the votes polled were found invalid. The winning candidate got 58% of the valid votes and won the election by a margin of 202100 votes. How many voters were registered?

- Ans**
- ✗ 1. 1562400
 - ✓ 2. 1562500
 - ✗ 3. 1562800
 - ✗ 4. 1562200

Q.21 Why is intracellular digestion suitable for unicellular organisms?

- Ans**
- ✗ 1. They lack digestive enzymes.
 - ✓ 2. They lack specialized digestive organs.
 - ✗ 3. They depend on external digestion.
 - ✗ 4. They have large body cavities.

Q.22 U, V, W, 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 W and Z. Only X lives above V. Y lives on an even-numbered floor. W lives on the lowermost floor. How many people live between U and X?

- Ans**
- ☐ 1. Three
 - ☐ 2. Four
 - ☐ 3. One
 - ☒ 4. Two

Q.23 In a pond ecosystem, removal of phytoplankton would most directly affect _____.

- Ans**
- ☐ 1. Decomposers only
 - ☐ 2. Abiotic components
 - ☒ 3. Primary consumers like zooplankton
 - ☐ 4. Secondary consumers like fish-eating birds

Q.24 Which of the following Acts in India specifically deals with controlling air pollution?

- Ans**
- ☒ 1. Air (Prevention and Control of Pollution) Act, 1981
 - ☐ 2. Air (Prevention and Control of Pollution) Act, 1988
 - ☐ 3. Air (Prevention and Control of Pollution) Act, 1984
 - ☐ 4. Air (Prevention and Control of Pollution) Act, 1990

Q.25 Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

NQ-KO-IL
FI-CG-AD

- Ans**
- ☐ 1. IM-GK-FH
 - ☒ 2. JM-GK-EH
 - ☐ 3. IM-GL-FH
 - ☐ 4. JM-GK-FH

Q.26 If $m + n + o = 15$ and $mn + no + om = 75$, then determine the value of $m^3 + n^3 + o^3 - 3mno$.

- Ans**
- ☐ 1. 3
 - ☐ 2. 1
 - ☐ 3. 5
 - ☒ 4. 0

Q.27 18 is related to 270 following a certain logic. Following the same logic, 21 is related to 315. To which of the following 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. 370
 - ☒ 2. 360
 - ☐ 3. 390
 - ☐ 4. 375

Q.28 If the bicuspid (mitral) valve fails to close properly, which immediate effect is most likely during ventricular contraction?

- Ans**
- ☒ 1. Backflow of blood from the left ventricle to the left atrium
 - ☐ 2. Backflow of blood from the right ventricle to the right atrium
 - ☐ 3. Mixing of oxygenated and deoxygenated blood in the ventricles
 - ☐ 4. Reduced flow of blood to the lungs

Q.29 If $2 : 4 :: 4.6 : x$ and $4 : 16 :: 2 : y$, what is the ratio of x to y ?

Ans  1. $24 : 18$

 2. $27 : 30$

 3. $23 : 20$

 4. $21 : 21$

Q.30 A wire of a given material has length l and cross-sectional area A , and its resistance is $9\ \Omega$. Another wire of the same material has length $l/3$ and cross-sectional area $3A$. What will be the resistance of the second wire?

Ans  1. $0.5\ \Omega$

 2. $6\ \Omega$

 3. $2\ \Omega$

 4. $1\ \Omega$

Q.31 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 $\div$ B' means 'A is the father of B'.

How is Q related to D if 'Q + E $\div$ R - C x D'?

Ans  1. Father

 2. Wife's father

 3. Wife's brother

 4. Brother

Q.32 24 is related to 270 following a certain logic. Following the same logic, 31 is related to 340. To which of the following is 43 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. 430

 2. 460

 3. 450

 4. 420

Q.33 If the cost price of 24 articles is equal to the selling price of 15 articles, then find the percentage of profit.

Ans  1. 60%

 2. 40%

 3. 55%

 4. 71%

Q.34 In a certain code,
'big grand wedding' is coded as 'rc af bg'
'grand birthday celebration' is coded as 'kp vg rc'
'enjoy big celebration' is coded as 'af zd vg'
(all the codes are two letter coded only)
What is the possible code for 'birthday bash'?

Ans  1. kp rc

 2. bg vg

 3. rc zd

 4. kp tn

Q.35 Which statement accurately describes how energy transforms during the free fall of an object under gravity?

- Ans**
- ☐ 1. Both potential and kinetic energies remain constant.
 - ☐ 2. Potential energy and kinetic energy both decrease.
 - ☐ 3. Potential energy is converted into heat energy during the fall.
 - ☒ 4. Potential energy decreases while kinetic energy increases, maintaining constant total mechanical energy.

Q.36 Gopal has borrowed an amount of ₹420000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 5% per annum after 4 years?

- Ans**
- ☐ 1. 85000
 - ☐ 2. 82000
 - ☐ 3. 83000
 - ☒ 4. 84000

Q.37 If atmospheric refraction did not occur, which change would be most noticeable during the observation of stars from Earth?

- Ans**
- ☐ 1. Stars would change color rapidly.
 - ☐ 2. Stars would disappear from the night sky.
 - ☐ 3. Planets would twinkle like stars.
 - ☒ 4. Stars would not twinkle; their light would remain steady.

Q.38 Refer to the following letter, symbol series and answer the question

(Left) H F % G R @ # S \$ M * % & N E Q Z U L @ T W (Right)

If all the symbols are dropped from the series, which of the following will be fourth from the right?

- Ans**
- ☐ 1. Q
 - ☐ 2. L
 - ☒ 3. U
 - ☐ 4. Z

Q.39 The average of the first 18 positive multiples of 7 is:

- Ans**
- ☐ 1. 18
 - ☐ 2. 63
 - ☒ 3. 66.5
 - ☐ 4. 7

Q.40 The mean marks of the following distribution is:

Marks Obtained	No. of Students
36	12
35	11
93	18
17	5

- Ans**
- ☒ 1. 56
 - ☐ 2. 75
 - ☐ 3. 60
 - ☐ 4. 72

Q.41 In 1964, who chaired the Committee on Prevention of Corruption and suggested the Central Vigilance Commission be established?

- Ans**
- ☒ 1. K. Santhanam
 - ☐ 2. G V Ramakrishna
 - ☐ 3. P K Mohanty
 - ☐ 4. G K Pillai

Q.42 Why are crops with different nutrient requirements chosen for inter-cropping?

- Ans**
- ☒ 1. To ensure maximum utilisation of nutrients supplied to the field
 - ☐ 2. To increase the duration of crop growth
 - ☐ 3. To prevent all pests and diseases completely
 - ☐ 4. To allow for crop rotation in succession

Q.43 If $5\sin Y + \cos Y = \sqrt{2} \sin Y$, then find the value of $\tan Y$.

- Ans**
- ☐ 1. $\frac{-5 - \sqrt{2}}{28}$
 - ☐ 2. $\frac{-6 - \sqrt{2}}{23}$
 - ☐ 3. $\frac{-5 - \sqrt{2}}{33}$
 - ☒ 4. $\frac{-5 - \sqrt{2}}{23}$

Q.44 Two trains having lengths of 430 m and 120 m are running at speeds of 70 km/h and 100 km/h, respectively, in the same direction. The time taken (in minutes) by the faster train, coming from behind, to completely cross the other train is:

- Ans**
- ☐ 1. 3.2
 - ☐ 2. 4.1
 - ☐ 3. 1.6
 - ☒ 4. 1.1

Q.45 RD 15 is related to UI -1 in a certain way. In the same way, WG 13 is related to ZL -3. To which of the following is OG 1 related, following the same logic?

- Ans**
- ☐ 1. KO -16
 - ☐ 2. HU -10
 - ☐ 3. JK -12
 - ☒ 4. RL -15

Q.46 The total surface area (in m^2) of a cube, each of whose edges measures 285 m, is:

- Ans**
- ☒ 1. 487350
 - ☐ 2. 487344
 - ☐ 3. 487308
 - ☐ 4. 487362

Q.47

If $\frac{x}{y} = \frac{11}{5}$, then find $\frac{x^2 + y^2}{x^2 - y^2}$

Ans

☐ 1. $\frac{67}{48}$

☐ 2. $\frac{71}{48}$

☒ 3. $\frac{73}{48}$

☐ 4. $\frac{79}{48}$

Q.48 Which of the following is an advantage of paper cups over plastic cups?

Ans

☐ 1. They are stronger

☒ 2. They are biodegradable

☐ 3. They are reusable

☐ 4. They are cheaper

Q.49 A question is given 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 carefully and decide the appropriate answer.

5 people - P, Q, X, Y and Z, have an exam on different days of the same week between Monday and Friday. Who has an exam on Thursday?

I. Q has an exam on Tuesday. No one has an exam between P and Q. Z has an exam immediately after X.

II. X has an exam on one of the days after Q. Only three people have an exam between P and Y

Ans

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

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

Q.50 Prafulla Chaki and Khudiram Bose are known for their attempt to assassinate which British official?

Ans

☐ 1. Lord Curzon

☐ 2. Lord Minto

☐ 3. John Morley

☒ 4. Douglas Kingsford

Q.51 The ratio of the cost prices of articles X and Y is 3 : 7. A man earns a profit of 49% by selling X and loses 16% by selling Y. What is his gain/loss percentage in the entire transaction?

Ans

☐ 1. Gain, 3%

☐ 2. Loss, 3.5%

☐ 3. Loss, 5%

☒ 4. Gain, 3.5%

Q.52 H is the brother of A. R is the sister of K. P is the son of K. K is the wife of A. How is H related to R?

Ans

☐ 1. Husband's father

☒ 2. Sister's husband's brother

☐ 3. Sister's husband's father

☐ 4. Husband's brother

Q.53 A grocer wishes to sell a mixture of two varieties of rice worth ₹56 per kg. In what ratio must he mix the rice to reach this selling price, when cost of one variety of rice is ₹54 per kg and the other is ₹64 per kg?

- Ans**
- ☒ 1. 4 : 1
 - ☐ 2. 3 : 1
 - ☐ 3. 3 : 2
 - ☐ 4. 2 : 3

Q.54 Which of the following is/are correct about C. Vijayaraghavachariar?
I. He was called 'The Hero of Salem'.
II. He was known as the 'Lion of North India'.

- Ans**
- ☐ 1. Only II
 - ☐ 2. Both I and II
 - ☒ 3. Only I
 - ☐ 4. Neither I nor II

Q.55 The height of a tree varies as the square root of its age. When the age of the tree is 324 years, its height is 19 feet. What will be the height of the tree (in feet) at the age of 81 years?

- Ans**
- ☐ 1. 9.01
 - ☐ 2. 8.39
 - ☒ 3. 9.5
 - ☐ 4. 9.14

Q.56 What is the reason why electrons move in a conducting wire when connected to a battery, but not when the wire is left untouched?

- Ans**
- ☒ 1. A battery creates a potential difference that sets electrons in motion
 - ☐ 2. Gravity acts on electrons in the wire
 - ☐ 3. Wire is made of copper
 - ☐ 4. Electrons have intrinsic energy for movement

Q.57 Simplify: $88 - 1 \times (5 + 12) - 19$

- Ans**
- ☒ 1. 52
 - ☐ 2. 60
 - ☐ 3. 62
 - ☐ 4. 54

Q.58 A student scored 60, 70, and 80 in three subjects with weights 2, 3, and 5, respectively. What is the weighted mean score?

- Ans**
- ☒ 1. 73
 - ☐ 2. 77
 - ☐ 3. 75
 - ☐ 4. 71

Q.59 What is the theme of the STREE Summit 2025, as inferred from its description?

- Ans**
- ☐ 1. "Empowering Women, Empowering Society"
 - ☒ 2. "She Triumphs Through Respect, Equality, and Empowerment"
 - ☐ 3. "Gender Equality: A Path to Progress"
 - ☐ 4. "Women's Rights are Human Rights"

Q.60 Which Indian player was appointed as the co-chair of the International Hockey Federation's new FIH Athletes Committee in 2024?

- Ans**
- ☐ 1. Amit Rohidas
 - ☐ 2. Harmanpreet Singh
 - ☒ 3. PR Sreejesh
 - ☐ 4. Raj Kumar Pal

Q.61 A student adds lead (II) nitrate ($\text{Pb}(\text{NO}_3)_2$) to an unknown solution. A yellow precipitate forms. What could the unknown solution be?

- Ans**
- ☒ 1. Potassium iodide (KI)
 - ☐ 2. Copper sulphate (CuSO_4)
 - ☐ 3. Sodium chloride (NaCl)
 - ☐ 4. Barium sulphate (BaSO_4)

Q.62 Washing soda is commonly used to:

- Ans**
- ☒ 1. Remove grease and soften water
 - ☐ 2. Neutralise acids in human blood
 - ☐ 3. Increase acidity in baked foods
 - ☐ 4. Preserve meat for long periods

Q.63 The HCF and the LCM of two numbers are 15 and 300, respectively. If one of the numbers is $\frac{5}{4}$ times of the other, what is the larger number?

- Ans**
- ☐ 1. 110
 - ☐ 2. 84
 - ☐ 3. 88
 - ☒ 4. 75

Q.64 In December 2024, Masli, a village in which state, became the first border solar village in India?

- Ans**
- ☐ 1. Odisha
 - ☒ 2. Gujarat
 - ☐ 3. Karnataka
 - ☐ 4. Madhya Pradesh

Q.65 Two inlet pipes A and B and one outlet pipe O are attached to a cistern. Pipe A fills the cistern in 8 hours, pipe B in 12 hours, and the outlet O can empty a full cistern in 24 hours. If all three pipes are opened simultaneously, how long will it take to fill the cistern?

- Ans**
- ☒ 1. 6 hours
 - ☐ 2. 5.5 hours
 - ☐ 3. 6.8 hours
 - ☐ 4. 6.5 hours

Q.66 If + means -, - means $\times$, $\times$ means $\div$, $\div$ means +, then what will come in place of the question mark (?) in the following equation?

$$7-24\times 6\div 18+7=?$$

- Ans**
- ☐ 1. 40
 - ☐ 2. 45
 - ☐ 3. 48
 - ☒ 4. 39

Q.67 What is the origin of the material that makes up the Bhabar belt?

- Ans**
- ☒ 1. Debris washed down from high ranges
 - ☐ 2. Weathering of local rocks
 - ☐ 3. Aeolian deposits
 - ☐ 4. Glacial deposits

Q.68 This question is based on the five, three-digit numbers given below.

(Left) 453 914 527 658 715 (Right)

(Example- 697 – First digit = 6, second digit = 9 and third digit = 7)

NOTE - All operations to be done from left to right.

What will be the resultant if the third digit of the highest number is multiplied with the second digit of the lowest number?

- Ans**
- ☐ 1. 19
 - ☐ 2. 17
 - ☐ 3. 18
 - ☒ 4. 20

Q.69 M, A, T, H and S, each have different ages and all ages are integers. M is younger than only two persons. H is 88 years old, which is the second highest age. S is younger than M but older than A. Who is the eldest?

- Ans**
- ☐ 1. H
 - ☒ 2. T
 - ☐ 3. S
 - ☐ 4. A

Q.70 Rupesh's salary was first reduced by 44% and subsequently raised by 15%. How much percentage was his final salary lower compared to his initial salary?

- Ans**
- ☒ 1. 35.6%
 - ☐ 2. 6.6%
 - ☐ 3. 29%
 - ☐ 4. 15%

Q.71 Ajay starts from Point A and drives 6 km towards north. He then takes a left turn, drives 5 km, turns left and drives 15 km. He then takes a left turn and drives 12 km. He takes a final left turn, drives 9 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90° turns only unless specified.)

- Ans**
- ☐ 1. 6 km to the east
 - ☐ 2. 6 km to the west
 - ☐ 3. 7 km to the east
 - ☒ 4. 7 km to the west

Q.72 A gardener notices fallen leaves under a tree. Which strategy of plant excretion does this illustrate, and what type of waste handling is involved?

- Ans**
- ☐ 1. Excreting waste through roots only.
 - ☐ 2. Releasing waste as oxygen only.
 - ☒ 3. Storing waste in leaves that fall off.
 - ☐ 4. Converting waste into fruits.

Q.73 A designer wants to create a device that spreads light from a small bulb to illuminate a wide area uniformly. Which lens should be used and why?

- Ans**
- ☐ 1. A plane glass, because it transmits light without bending
 - ☐ 2. A prism, because it bends light at an angle
 - ☐ 3. A convex lens, because it converges light rays
 - ☒ 4. A concave lens, because it diverges light rays outward

Q.74 Which of the following is a biotic factor causing storage losses in grains?

- Ans**
- ☐ 1. Sunlight
 - ☐ 2. Temperature
 - ☐ 3. Moisture
 - ☒ 4. Insects

Q.75 The Alapana in Carnatic music is equivalent to which part in Hindustani music?

- Ans**
- ☐ 1. Taan
 - ☐ 2. Bandish
 - ☒ 3. Alap
 - ☐ 4. Sargam

Q.76 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

All cups are glasses.

All glasses are bottles.

All bottles are jars.

Conclusions:

(I): All cups are bottles.

(II): All glasses are jars.

- Ans**
- ☐ 1. Only conclusion (I) follows.
 - ☐ 2. Only conclusion (II) follows.
 - ☒ 3. Both conclusions (I) and (II) follow.
 - ☐ 4. Neither conclusion (I) nor (II) follows.

Q.77 Garima bought an original hardbound book for ₹56,000. Its value depreciates by 5% per year. What will be the price (in ₹) of the book after 3 years?

- Ans**
- ☐ 1. 47,052
 - ☒ 2. 48,013
 - ☐ 3. 48,512
 - ☐ 4. 48,713

Q.78 What should come in place of the question mark (?) in the given series?

6 10 38 106 326 ?

- Ans**
- ☐ 1. 923
 - ☐ 2. 980
 - ☒ 3. 970
 - ☐ 4. 958

Q.79 A town replaces all plastic bags with cloth bags. Which chain reaction is expected in the ecosystem?

- Ans**
- ☐ 1. Cloth bags cause soil toxicity
 - ☐ 2. Plastic still enters the food chain
 - ☐ 3. More plastic accumulates in water bodies
 - ☒ 4. Reduced pollution and decreased biological magnification

Q.80 Identify the CORRECT statement about the chlor-alkali process:

- Ans**
- ☐ 1. It is used for the preparation of Na_2CO_3 solution by electrolysis of brine.
 - ☒ 2. Hydrogen gas is formed at the cathode and chlorine gas at the anode.
 - ☐ 3. Sodium hydroxide is generated near the anode during electrolysis.
 - ☐ 4. NaOH is formed at the anode and chlorine gas at the cathode.

Q.81 Which element exists as a monoatomic molecule?

- Ans**
- ☐ 1. Oxygen
 - ☐ 2. Chlorine
 - ☐ 3. Nitrogen
 - ☒ 4. Argon

Q.82 According to the Global Firepower Index 2025, what is India's global rank in terms of conventional military strength?

- Ans**
- ☐ 1. 2nd
 - ☐ 2. 5th
 - ☒ 3. 4th
 - ☐ 4. 3rd

Q.83 What should come in place of '?' in the given series?

2 7 22 67 ?

- Ans**
- ☒ 1. 202
 - ☐ 2. 204
 - ☐ 3. 203
 - ☐ 4. 201

Q.84 What happens to insoluble impurities during electrolytic refining?

- Ans**
- ☐ 1. They deposit on cathode
 - ☐ 2. They dissolve completely
 - ☒ 3. They settle as anode mud
 - ☐ 4. They evaporate

Q.85 The radius of a solid right circular cone is 24 cm and its height is 32 cm. The total surface area of the cone is:

- Ans**
- ☐ 1. $576\pi \text{ cm}^2$
 - ☐ 2. $1536\pi \text{ cm}^2$
 - ☒ 3. $960\pi \text{ cm}^2$
 - ☐ 4. $1728\pi \text{ cm}^2$

Q.86 Six friends, O, P, Q, G, H and I, 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 O and H. O lives above P. Only two people live between Q and P. Only one person lives between G and P. G lives on floor numbered 1. How many people live above I?

- Ans**
- ☐ 1. One
 - ☐ 2. Three
 - ☒ 3. Two
 - ☐ 4. None

Q.87 Which of the following islands is the southernmost point of India?

- Ans**
- ☐ 1. Kavaratti
 - ☐ 2. Little Andaman
 - ☒ 3. Indira Point
 - ☐ 4. Car Nicobar

Q.88 The equations $x^2 - 5x + 6 = 0$ and $x^2 + ax + b = 0$, have exactly one common root, and the other root of the second equation is -4 . Among the following, which are the possible values of a and b ?

- Ans**
- ☐ 1. $a=3, b=-6$
 - ☐ 2. $a=1, b=12$
 - ☐ 3. $a=5, b=-20$
 - ☒ 4. $a=2, b=-8$

Q.89 A farmer wants to improve both the quantity and taste of honey produced on his bee farm. Which of the following strategies should he adopt?

- Ans**
- ☐ 1. Reduce the number of beehives and increase the number of bees.
 - ☐ 2. Move the apiary to an area with fewer flowers.
 - ☐ 3. Use only local bee varieties for honey production.
 - ☒ 4. Increase the variety and quantity of flowering plants near the beehives.

Q.90 The lengths of the three sides of a triangle are 13 cm, 14 cm and 15 cm, respectively. Find the area (in cm^2) of the incircle of this triangle. [Use $\pi = 3.14$]

- Ans**
- ☐ 1. 56.52
 - ☐ 2. 47.10
 - ☒ 3. 50.24
 - ☐ 4. 53.38

Q.91 A micelle has its hydrophobic ends directed:

- Ans**
- ☐ 1. Towards water molecules directly
 - ☐ 2. Randomly in all possible directions
 - ☐ 3. Outside forming hydrogen bonds
 - ☒ 4. Towards the center away from water

Q.92 Which pair of olfactory indicators loses its smell in a basic solution?

- Ans**
- ☒ 1. Vanilla essence and clove oil
 - ☐ 2. Onion and blue litmus
 - ☐ 3. Turmeric and onion
 - ☐ 4. Phenolphthalein and onion

Q.93 A train moves 120 km at 60 km/h and then another 60 km at 30 km/h. What is the average speed for the entire journey?

- Ans**
- ☐ 1. 40 km/h
 - ☒ 2. 45 km/h
 - ☐ 3. 50 km/h
 - ☐ 4. 30 km/h

Q.94 Which of the following numbers is divisible by both 9 and 43?

- Ans**
- ☐ 1. 10710
 - ☒ 2. 8901
 - ☐ 3. 7230
 - ☐ 4. 7095

Q.95 Open Market Operations (OMOs) are conducted by RBI to control _____.

- Ans**
- ☒ 1. Money supply
 - ☐ 2. State budgets
 - ☐ 3. Corporate profits
 - ☐ 4. Foreign trade

Q.96 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(136, 220, 84)
(144, 240, 96)

- Ans**
- ☐ 1. (156, 210, 56)
 - ☐ 2. (164, 254, 92)
 - ☒ 3. (140, 238, 98)
 - ☐ 4. (152, 260, 88)

Q.97 What happens to the potential energy of an object if its mass is halved while its height above the ground remains constant?

- Ans**
- ☐ 1. The potential energy becomes zero
 - ☐ 2. The potential energy is doubled
 - ☐ 3. The potential energy remains unchanged
 - ☒ 4. The potential energy is halved

Q.98 This question is based on the words given below.

IRE AWE DAY FUR

In each of the words, each vowel is changed to the second letter preceding it in the English alphabetical order, and each consonant is changed to the letter immediately following it in the English alphabetical order. In how many letter-clusters thus formed will no vowel appear?

- Ans**
- ☒ 1. Three
 - ☐ 2. Four
 - ☐ 3. Two
 - ☐ 4. One

Q.99 Which of the following types of connective tissue is present in the larynx of a human body?

- Ans**
- ☐ 1. Areolar
 - ☐ 2. Adipose
 - ☐ 3. Ligament
 - ☒ 4. Cartilage

Q.100 If $x^2 - kx - 49 = 0$ and $x^2 - 5kx + 11 = 0$ ($k > 0$) have a common root, then the value of k is:

Ans

✗ 1. $\frac{15}{4}$

✗ 2. $\frac{15}{7}$

✗ 3. $\frac{15}{2}$

✓ 4. $\frac{15}{8}$

RAILWAY BABA



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 05/25 - जेई, डीएमएस, सीएमए - CEN - 05/25 - JE, DMS, CMA



Test Date	25/02/2026
Test Time	4:30 PM - 6:00 PM
Subject	RRB JE DMS CMA

* 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

Q.1 Simar starts from Point A and drives 10 km towards south. He then takes a right turn, drives 7 km, turns right and drives 12 km. He then takes a right turn and drives 9 km. He takes a final right turn, drives 2 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?

(All turns are 90 degree turns only unless specified.)

Ans ☒ 1. 2 km to the west

☐ 2. 3 km to the west

☐ 3. 2 km to the east

☐ 4. 3 km to the east

Q.2 A tap can fill a cistern in 32 hours, while another tap can empty the full cistern in 64 hours. If the cistern is initially empty and both taps are opened together, find the time (in hours) required to fill one-fourth of the cistern.

Ans ☐ 1. 64

☐ 2. 48

☐ 3. 32

☒ 4. 16

Q.3 The list price of a refrigerator is ₹15,000. It is sold to a retailer after two successive discounts of 32% and 40%. The retailer wants to earn a profit of 45% on his cost after allowing a 49% discount (on its new list price) to the customer. At what price should he list the refrigerator?

Ans ☒ 1. ₹17,400

☐ 2. ₹17,412

☐ 3. ₹17,325

☐ 4. ₹17,504

Q.4 D, R, A, W and S have different marks. Only one person has scored between A and R. Only one person has scored between R and W. S has scored more than R and W. How many people have scored less than D?

Ans ☒ 1. One

☐ 2. Two

☐ 3. Four

☐ 4. Three

Q.5	Express $5.97\bar{3}$ as a vulgar fraction.
Ans	✓ 1. $5\frac{219}{225}$
	✗ 2. $5\frac{319}{225}$
	✗ 3. $5\frac{229}{255}$
	✗ 4. $5\frac{319}{215}$
Q.6	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. JKK : KFH HVO : IQL
Ans	✗ 1. CPR : DKN
	✓ 2. OOP : PJM
	✗ 3. FJL : GDI
	✗ 4. CUK : DPG
Q.7	Why are sulphide ores usually converted into oxides before the extraction of metals?
Ans	✗ 1. Metal sulphides react faster with carbon
	✗ 2. Sulphide ores are unstable at room temperature
	✗ 3. Sulphide ores contain more gangue materials
	✓ 4. Metal oxides are easier to reduce than sulphides
Q.8	Under the Stand-Up India Scheme, bank loans from Scheduled Commercial Banks (SCBs) are provided in what range for eligible beneficiaries?
Ans	✗ 1. ₹5 lakh to ₹50 lakh
	✗ 2. ₹25 lakh to ₹2 crore
	✗ 3. ₹1 crore to ₹5 crore
	✓ 4. ₹10 lakh to ₹1 crore
Q.9	If $\frac{4(x^2 + 1) - 8x}{3x} = 6$, $x > 0$, then find the positive value of $\sqrt{x} + \frac{1}{\sqrt{x}}$.
Ans	✗ 1. $\sqrt{\frac{2}{5}}$
	✗ 2. $\sqrt{\frac{2}{3}}$
	✗ 3. $\sqrt{\frac{5}{3}}$
	✓ 4. $\sqrt{\frac{17}{2}}$
Q.10	What is the primary composition of the stable composite developed by IIT Mandi that prevents 2D semiconductors from degrading?
Ans	✗ 1. Carbon nanotubes embedded in polymer matrix
	✗ 2. Boron nitride mixed with epoxy resin
	✓ 3. Tungsten disulfide (WS) encapsulated in polydimethylsiloxane (PDMS)
	✗ 4. Graphene combined with silicone

Q.11	If $14.8 : x :: x : 3.7$ and $x > 0$, then find the value of x.
Ans	✓ 1. 7.4 ✗ 2. 4.1 ✗ 3. 12.9 ✗ 4. 11.4
Q.12	'Utkal Diwas', which was celebrated on 1st April 2025, marks the anniversary of the statehood of _____.
Ans	✗ 1. Chhattisgarh ✗ 2. Uttarakhand ✗ 3. Telangana ✓ 4. Odisha
Q.13	Seven boxes, D, E, F, G, H, W and X, are kept one over the other, but not necessarily in the same order. Only H is kept above E. Only D is kept between E and G. Only F is kept below X. How many boxes are kept between W and E?
Ans	✗ 1. One ✗ 2. Three ✓ 3. Two ✗ 4. Four
Q.14	19 is related to 287 following a certain logic. Following the same logic, 23 is related to 347. 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 /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. 422 ✗ 2. 426 ✗ 3. 424 ✗ 4. 420
Q.15	Why are brackets used in the formula $\text{Ca}(\text{OH})_2$?
Ans	✗ 1. To show ionic nature ✗ 2. To balance oxygen atoms ✓ 3. To indicate two hydroxide groups ✗ 4. To represent molecular bonding
Q.16	In a certain code language, $A + B$ means 'A is the daughter of B' $A - B$ means 'A is the brother of B' $A \times B$ means 'A is the wife of B' $A \div B$ means 'A is the father of B' Based on the above, how is E related to K if '$E - F + G \times H \div K$'?
Ans	✗ 1. Husband ✓ 2. Brother ✗ 3. Son ✗ 4. Father

Q.17	If + means -, - means x, x means ÷, ÷ means +, then what will come in place of the question mark (?) in the following equation? $4-18 \times 3 \div 50 + 33 = ?$	
Ans	✗ 1. 31 ✗ 2. 40 ✓ 3. 41 ✗ 4. 30	
Q.18	The average of the first 18 positive multiples of 11 is:	
Ans	✓ 1. 104.5 ✗ 2. 18 ✗ 3. 11 ✗ 4. 99	
Q.19	How many metres of cloth 2 metres wide will be required to make a conical tent with the diameter of the base being 14 metres and its slant height being 9.5 metres? (Use $\pi = \frac{22}{7}$)	
Ans	✗ 1. 114.5 ✓ 2. 104.5 ✗ 3. 124.5 ✗ 4. 109.5	
Q.20	A dentist uses a mirror to obtain a large image of a patient's tooth. Which mirror should the dentist use and why?	
Ans	✗ 1. Plane mirror, because it gives a real image ✓ 2. Concave mirror, because it gives a magnified image ✗ 3. Spherical mirror, because it gives a virtual image ✗ 4. Convex mirror, because it gives a magnified image	
Q.21	What is the primary material used to develop vermicompost?	
Ans	✗ 1. Bacteria and viruses ✓ 2. Earthworms ✗ 3. Yeast ✗ 4. Chemical fertilisers	
Q.22	Girish scored 695 marks in an examination and was 17 marks short of 89% of the maximum marks. In the same examination, his friend scored 688 marks. What is the percentage of marks scored by his friend?	
Ans	✗ 1. 84% ✗ 2. 83% ✓ 3. 86% ✗ 4. 87%	
Q.23	How do check-dams help in improving agricultural water availability and soil quality?	
Ans	✓ 1. They increase groundwater levels and reduce soil erosion. ✗ 2. They directly irrigate fields with river water and increase soil erosion. ✗ 3. They store water only for city use, and reduce soil erosion. ✗ 4. They divert water away from farms and increase soil erosion.	

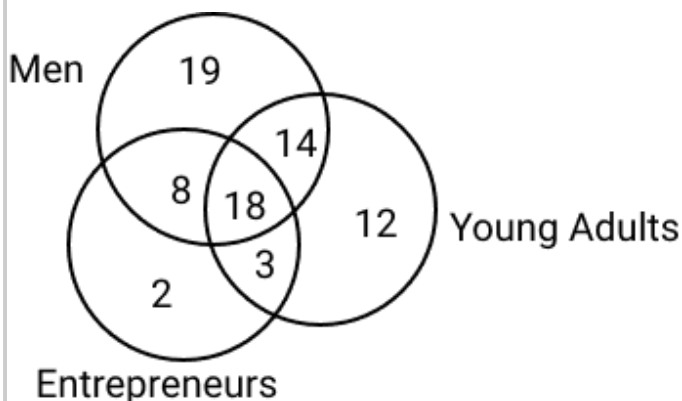
Q.24	Which observation supports the law of constant proportions for water?
Ans	☒ 1. Water boils at fixed temperature
	☒ 2. Water exists in three states
	☒ 3. Hydrogen and oxygen ratio is fixed
	☒ 4. Water conducts electricity weakly
Q.25	P is the brother of W. W is the father of R. T is the father of J. J is the son of R. How is T related to P?
Ans	☒ 1. Daughter's son
	☒ 2. Brother's daughter's son
	☒ 3. Daughter's husband
	☒ 4. Brother's daughter's husband
Q.26	A shopkeeper sells his goods at cost price. If by using false weights he gains $3\frac{19}{27}\%$, then what weight does he use for 1 kg (in g, rounded off to 2 decimal places)?
Ans	☒ 1. 987.35
	☒ 2. 964.29
	☒ 3. 938.99
	☒ 4. 954.79
Q.27	What should come in place of '?' in the given series? 7 10 16 25 ?
Ans	☒ 1. 34
	☒ 2. 43
	☒ 3. 40
	☒ 4. 37
Q.28	In a micelle, which part faces outward toward water?
Ans	☒ 1. Hydrocarbon tail
	☒ 2. Ionic head
	☒ 3. Non-polar end
	☒ 4. Grease molecule
Q.29	A student claims that two cars of equal mass, one moving at 40 km/h and another at 80 km/h, have the same kinetic energy if their engines provide the same power. What is the error in this reasoning?
Ans	☒ 1. The cars have equal energy if the engines are identical.
	☒ 2. Kinetic energy depends on the square of speed, not just on power supplied.
	☒ 3. Power supplied determines energy, regardless of speed.
	☒ 4. Both cars have equal kinetic energy since both cover the same distance.
Q.30	A farmer wants to grow wheat with better baking quality and resistance to drought. Which two characteristics should be targeted in variety improvement?
Ans	☒ 1. Higher yield and wider adaptability
	☒ 2. Improved quality and abiotic resistance
	☒ 3. Improved quality and biotic resistance
	☒ 4. Wider adaptability and biotic resistance

Q.31	As per the India Meteorological Department (IMD), what is the approximate total annual normal rainfall received in the Thar Desert, which has a coefficient of variation (CV) of about 38%?
Ans	✓ 1. 250 mm per year ✗ 2. 200 mm per year ✗ 3. 150 mm per year ✗ 4. 50 mm per year
Q.32	Which rivers have contributed to the formation of the Northwestern Plains of India?
Ans	✗ 1. Krishna, Godavari, and Kaveri ✓ 2. Satluj, Beas, and Ravi ✗ 3. Ganga, Yamuna, and Brahmaputra ✗ 4. Narmada, Tapti, and Mahanadi
Q.33	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 carefully and decide the appropriate answer. Question: 5 people, P, Q, X, Y and Z, have an exam on different days of the same week between Monday and Friday. Who has an exam on Thursday? Statements: I. P has an exam on Wednesday. Only one person has an exam between P and Q. Z has an exam immediately before X. II. No one has an exam between P and Y. Only two people have an exam between Y and X. Z does not have an exam on Monday.
Ans	✗ 1. Data in statement II alone is sufficient to answer the question while data in statement I is not ✗ 2. Data in statement I alone is sufficient to answer the question while data in statement II is not ✗ 3. Data in statements I and II together is not sufficient to answer the question ✓ 4. Data in statements I and II together (and not statement I alone or statement II alone) is sufficient to answer the question
Q.34	Why does our palm feel cold when acetone or petrol is poured on it?
Ans	✗ 1. The liquid blocks heat flow from surroundings ✗ 2. The liquid increases moisture on skin surface ✓ 3. The liquid absorbs heat from the skin to evaporate ✗ 4. The liquid reacts chemically with our skin surface
Q.35	When x is added to each of 13, 19, 16 and 23, then the numbers so obtained, in this order, are in proportion. Then, if $5x : y :: y : (8x-4)$, and $y > 0$, what is the value of y?
Ans	✗ 1. 42 ✗ 2. 37 ✗ 3. 41 ✓ 4. 30
Q.36	Refer to the following letter, number and symbol series and answer the question that follows. (Left) H @ \$ V 1 B 2 C N E T U 8 6 % # L C N Q A (Right) If all the letters are dropped from the series, which of the following will be fifth from the left?
Ans	✗ 1. 6 ✓ 2. 8 ✗ 3. % ✗ 4. 2

Q.37	Which region is the Sarhul festival, organised on 1 st April 2025, particularly significant in?
Ans	✗ 1. The southern states of India ✗ 2. The Himalayan region ✓ 3. The Chhotanagpur region and Jharkhand ✗ 4. The coastal regions of India
Q.38	How do rays parallel to the principal axis behave after reflection from a convex mirror?
Ans	✗ 1. They actually converge at the focus. ✓ 2. They appear to diverge from a point on the principal axis. ✗ 3. They get reflected back along the same path. ✗ 4. They pass through the centre of curvature.
Q.39	Which of the following articles is INCORRECTLY matched with the Constitutional Provisions related to Parliament ?
Ans	✗ 1. Article 93 ----Speaker and Deputy Speaker of the House of People ✓ 2. Article 99 ----Composition of the Council of States/Rajya Sabha ✗ 3. Article 89---- Chairman and Deputy Chairman of Council of States ✗ 4. Article 105---- Powers and Privileges of the Houses of Parliament
Q.40	The monthly income of Chetan is ₹60,000 and his expenditure is ₹35,000. If his income increases by 25%, and his expenditure increases by 15%, then what will be the percentage increase in his savings?
Ans	✗ 1. 35% ✗ 2. 36% ✓ 3. 39% ✗ 4. 38%
Q.41	Which of the following situations is NOT an example of action and reaction forces?
Ans	✗ 1. A swimmer pushing water backwards ✗ 2. A bat hitting a cricket ball ✓ 3. A ball thrown upward comes back down due to the pull of gravity. ✗ 4. A rocket launching upwards
Q.42	In a certain code, 'parents teach good values' is coded as 'sc fs ye un', 'strong values shape character' is coded as 'lx zv fs lb' and 'good habits discipline strong' is coded as 'ye hk gb zv'. (All the codes are two-letter codes only.) What is the possible code for 'character'?
Ans	✗ 1. Either 'ye' or 'lb' ✗ 2. Either 'fs' or 'zv' ✗ 3. Either 'lb' or 'fs' ✓ 4. Either 'lb' or 'lx'
Q.43	Which of the following statements best explains why humans are severely affected by biological magnification?
Ans	✗ 1. Humans can break down toxins ✗ 2. Humans are best decomposers in food chain ✗ 3. Humans consume less food than other consumers in food chain ✓ 4. Humans occupy the top trophic level in many food chains

Q.44	Which of the following folk dances is performed to celebrate a good harvest and is popular in the states of Odisha and Chhattisgarh?
Ans	✗ 1. Bhangra ✓ 2. Karma ✗ 3. Garba ✗ 4. Rouf
Q.45	The fluid content inside the plasma membrane is named:
Ans	✗ 1. Chromatin ✗ 2. Genes ✓ 3. Cytoplasm ✗ 4. Chromosomes
Q.46	Select the set in which the numbers are related in the same way as are the numbers of the following sets. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed) (13, 91, 27) (19, 133, 39)
Ans	✗ 1. (25, 175, 50) ✗ 2. (26, 130, 53) ✓ 3. (20, 140, 41) ✗ 4. (29, 210, 57)
Q.47	The roots of the equation $ax^3 - 24x^2 + 188x - 480 = 0$ are three consecutive even natural numbers. The value of a is ____.
Ans	✗ 1. 2 ✓ 2. 1 ✗ 3. 3 ✗ 4. 4
Q.48	Which waste based difference between the renal artery and renal vein is directly related to excretory function?
Ans	✗ 1. The renal vein has higher pressure ✗ 2. The renal artery has more valves ✓ 3. The renal artery contains more urea ✗ 4. The renal vein contains more oxygen
Q.49	A car suddenly changes direction while moving at constant speed. Which aspect of inertia is being demonstrated, and how does the car's mass influence this effect?
Ans	✗ 1. The inertia of rest is demonstrated, and the car's mass does not affect direction changes. ✗ 2. The inertia of speed is demonstrated, and a lighter car resists direction change more. ✗ 3. Mass only affects speed, not direction, when a car turns. ✓ 4. The inertia of direction is demonstrated, and a car with greater mass will resist the change in direction more.

Q.50 Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)



How many young adults are entrepreneurs?

Ans ✓ 1. 21

✗ 2. 3

✗ 3. 22

✗ 4. 18

Q.51 In the Assumed Mean Method, if the assumed mean (A) = 55 and an observed value x = 40, what is the deviation d?

Ans ✗ 1. 1.5

✗ 2. -1.5

✗ 3. 15

✓ 4. -15

Q.52 If a body at rest is dropped from a certain height and takes 4 seconds to reach the ground, what is the approximate height from which it was dropped? (Take $g = 10 \text{ m/s}^2$)

Ans ✓ 1. 80 meters

✗ 2. 160 meters

✗ 3. 40 meters

✗ 4. 100 meters

Q.53 Which of the following is usually 'stored under high pressure'?

Ans ✗ 1. N₂

✗ 2. H₂

✗ 3. Solid CO₂

✓ 4. NaCl

Q.54 The value of $4^3 - 7^2 + \left(\frac{16}{4}\right)^2 - 4 + 9 \times 1 =$ _____

Ans ✗ 1. 33

✗ 2. 44

✗ 3. 42

✓ 4. 36

Q.55 Which of the following objectives is stated in Article 38 of the Indian Constitution?

Ans ✗ 1. To establish military rule for national security

✓ 2. To establish a social order based on justice—social, economic, and political

✗ 3. To guarantee employment to all citizens

✗ 4. To provide equal education opportunities for all

Q.56	The Five Ps of Sustainable Development are:
Ans	☒ 1. Poverty, Peace, Protection, Plant, Product
	☒ 2. Population, Peace, Production, Power, Partnership
	☒ 3. People, Peace, Power, Planet, Partnership
	☒ 4. People, Peace, Prosperity, Planet, Partnership
Q.57	A farmer wants to plant 95 mango trees, 171 banyan trees, and 152 banana trees in equal rows (in terms of the number of trees). Also, he wants to create distinct rows of trees, with only one type of tree in each row. Find the minimum number of rows required.
Ans	☒ 1. 23
	☒ 2. 18
	☒ 3. 19
	☒ 4. 22
Q.58	Find the roots of the quadratic equation $15x^2 - x - 2 = 0$
Ans	☒ 1. $x = \frac{-1}{3}$ or $x = \frac{-2}{5}$
	☒ 2. $x = \frac{1}{3}$ or $x = \frac{2}{5}$
	☒ 3. $x = \frac{-1}{3}$ or $x = \frac{2}{5}$
	☒ 4. $x = \frac{1}{3}$ or $x = \frac{-2}{5}$
Q.59	If $14\sin Y + \cos Y = \sqrt{14}\sin Y$, then find the value of $\tan Y$.
Ans	☒ 1. $\frac{-14 - \sqrt{14}}{182}$
	☒ 2. $\frac{-14 - \sqrt{14}}{187}$
	☒ 3. $\frac{-14 - \sqrt{14}}{192}$
	☒ 4. $\frac{-15 - \sqrt{14}}{182}$
Q.60	This question is based on the following words/letter clusters. (left) ADS DUG AGS BEG (right) How many letters are there between the second letter of the second word/letter cluster from the right and the second letter of the second word/letter cluster from the left, counted in the English alphabetical order?
Ans	☒ 1. 11
	☒ 2. 12
	☒ 3. 13
	☒ 4. 14

Q.61	By the late 1960s, what major achievement did India attain in agriculture?
Ans	✗ 1. Shifted entirely to organic farming ✗ 2. Started exporting food grains ✓ 3. Became self-sufficient in food grains ✗ 4. Stopped using fertilizers
Q.62	Simplify: $110 - 42 \times (5 + 6) - 6$
Ans	✗ 1. -348 ✗ 2. -363 ✗ 3. -350 ✓ 4. -358
Q.63	Who among the following has overtaken Yuzvendra Chahal to become India's highest wicket-taker in T20 Internationals at Eden Gardens in Kolkata on 22 January 2025?
Ans	✗ 1. Jasprit Bumrah ✗ 2. Kuldeep Yadav ✗ 3. Mohammed Siraj ✓ 4. Arshdeep Singh
Q.64	A regular hexagon is inscribed in a circle. If the length of the shortest diagonal of the hexagon is 12 cm, find one-sixth of the area (in cm^2) of the region lying between the circle and the hexagon.
Ans	✗ 1. $6(3\pi - 2\sqrt{3})$ ✓ 2. $4(2\pi - 3\sqrt{3})$ ✗ 3. $4(3\pi - 2\sqrt{3})$ ✗ 4. $6(2\pi - 3\sqrt{3})$
Q.65	What should come in place of the question mark (?) in the given series? 2 16 44 100 212 ?
Ans	✓ 1. 436 ✗ 2. 433 ✗ 3. 430 ✗ 4. 435
Q.66	Select the set in which the numbers are related in the same way as are the numbers of the following sets. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into 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.) (133,5,23) (107,1,18)
Ans	✓ 1. (76,20,16) ✗ 2. (10,22,2) ✗ 3. (75,9,4) ✗ 4. (18,24,1)

Q.67	Which of the following is/are correct about Tej Bahadur Sapru? I. He helped Annie Besant to build up the Central Hindu College at Banaras. II. He entered politics during the Home Rule movement. III. He participated in the Round Table Conferences held between 1930 and 1932 in London.	
Ans	☒ 1. Only I	
	☒ 2. Only II	
	☒ 3. All I, II and III	
	☒ 4. Only II and III	
Q.68	Which of the following tissues ensures that food made in the leaves is delivered to all plant parts?	
Ans	☒ 1. Phloem	
	☒ 2. Mesophyll	
	☒ 3. Xylem	
	☒ 4. Epidermis	
Q.69	Amit had invested same amount of sums at simple as well as compound interest, compounded annually. The time period of both the sums was 2 years and rate of interest too was same 10% per annum. At the end, he found a difference of ₹97 in both the interests received. What were the sums (in ₹) invested?	
Ans	☒ 1. 8,950	
	☒ 2. 8,800	
	☒ 3. 9,700	
	☒ 4. 10,050	
Q.70	Plant diseases are caused by pathogens transmitted through:	
Ans	☒ 1. Sunlight exposure	
	☒ 2. Soil, water and air	
	☒ 3. Crop residues alone	
	☒ 4. Fertilisers and manure only	
Q.71	What conclusion can be drawn from the experiment in which potassium permanganate solution remains coloured even after repeated dilution?	
Ans	☒ 1. Particles of matter are extremely small in size	
	☒ 2. Particles of matter are fixed and stationary	
	☒ 3. Particles of matter are visible to naked eye	
	☒ 4. Particles of matter occupy no space at all	
Q.72	Ozone shields the surface of the Earth from which type of radiation coming from the Sun?	
Ans	☒ 1. X rays	
	☒ 2. White light	
	☒ 3. Infra-red	
	☒ 4. Ultra violet	

Q.73	Mr. W travelled 425 km, 946 km and 340 km at a speed of 5 km/hr, 43 km/hr and 34 km/hr, respectively. Find his average speed in km/hr.	
Ans	☒ 1. $14\frac{71}{117}$	
	☒ 2. $14\frac{75}{117}$	
	☒ 3. $14\frac{73}{117}$	
	☒ 4. $14\frac{70}{117}$	
Q.74	Which of the following everyday mixtures is best classified as a suspension?	
Ans	☒ 1. Salt solution prepared in water	
	☒ 2. Sugar completely dissolved in water	
	☒ 3. Copper sulphate dissolved in water	
	☒ 4. Chalk powder mixed with water	
Q.75	In what ratio should sugar costing ₹34/kg be mixed with sugar costing ₹58/kg so that by selling the mixture at ₹52.80/kg, there is a profit of 32%?	
Ans	☒ 1. 5 : 3	
	☒ 2. 7 : 3	
	☒ 3. 3 : 1	
	☒ 4. 5 : 2	
Q.76	When dilute hydrochloric acid reacts with calcium carbonate, the gas evolved is passed through limewater. On passing the gas in excess, the milkiness disappears due to the formation of:	
Ans	☒ 1. Calcium oxide	
	☒ 2. Calcium hydrogen carbonate	
	☒ 3. Calcium carbonate	
	☒ 4. Calcium hydroxide	
Q.77	Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements. Statements: All apples are mangos. All mangos are balls. No ball is a cat. Conclusions: (I): No apple is a cat. (II): Some balls are apples.	
Ans	☒ 1. Both conclusions (I) and (II) follow	
	☒ 2. Neither conclusion (I) nor (II) follows	
	☒ 3. Only conclusion (II) follows	
	☒ 4. Only conclusion (I) follows	
Q.78	If the current in a wire is 2 amperes, how much charge flows through a cross-section in 5 seconds?	
Ans	☒ 1. 7 coulombs	
	☒ 2. 10 coulombs	
	☒ 3. 0.4 coulombs	
	☒ 4. 2.5 coulombs	

Q.79	Find the ratio between the fourth proportional of 8, 12 and 4, and the third proportional of 6 and 9.	
Ans	✓ 1. 4:9	
	✗ 2. 5:11	
	✗ 3. 7:11	
	✗ 4. 9:13	
Q.80	The ratio of the cost prices of articles X and Y is 1:2. A man earns a profit of 12% by selling X and incurs a loss of 36% by selling Y. What is his overall gain or loss percentage in the entire transaction?	
Ans	✓ 1. Loss, 20%	
	✗ 2. Gain, 20%	
	✗ 3. Gain, 26.5%	
	✗ 4. Loss, 24.5%	
Q.81	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. X has exam on Friday. Only two people have exams between Y and X. Only four people have exams between C and Y. D has exam immediately after F. Z doesn't have exam on Monday. How many people have exam(s) between Z and E?	
Ans	✓ 1. Four	
	✗ 2. Two	
	✗ 3. Three	
	✗ 4. One	
Q.82	A can do a work in 9 days and B in 12 days. They work on alternate days, beginning with B. In how many days will the work be completed?	
Ans	✗ 1. $8\frac{1}{3}$	
	✗ 2. $9\frac{1}{3}$	
	✓ 3. $10\frac{1}{3}$	
	✗ 4. $12\frac{1}{3}$	
Q.83	Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern. JM-HK-FI MP-KN-IL	
Ans	✗ 1. QS-NP-KO	
	✓ 2. PS-NQ-LO	
	✗ 3. PS-NQ-KO	
	✗ 4. QS-MP-KO	
Q.84	In a certain code, 'green apple sweet' is coded as 'ta lo mi' 'red apple fresh' is coded as 'ku lo pe' 'green mango fresh' is coded as 'ta si pe' (all the codes are two letter coded only) What is the code for "green apple"?	
Ans	✗ 1. ku lo	
	✗ 2. mi si	
	✓ 3. ta lo	

Q.85	Why are metals such as sodium and calcium extracted by electrolytic reduction instead of heating with carbon?	
Ans	☒ 1. They decompose when heated with carbon	
	☒ 2. They have greater affinity for oxygen than carbon	
	☒ 3. They exist only as molten chlorides in nature	
	☒ 4. They form unstable oxides at high temperature	
Q.86	A boat travels 36 km downstream in 3 hours and returns upstream covering the same distance in 5 hours. What is the speed of boat in still water?	
Ans	☒ 1. 10.2 km/hour	
	☒ 2. 9.6 km/hour	
	☒ 3. 11.7 km/hour	
	☒ 4. 8.5 km/hour	
Q.87	What should come in place of ? in the given series based on the English alphabetical order? JMQ ILP HKO GJN ?	
Ans	☒ 1. FJM	
	☒ 2. FIN	
	☒ 3. FIM	
	☒ 4. FJN	
Q.88	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. KI-EF	
	☒ 2. SQ-NL	
	☒ 3. AY-VT	
	☒ 4. LJ-GE	
Q.89	India commemorated the _____ birth anniversary of Rabindranath Tagore on May 7, 2025.	
Ans	☒ 1. 164th	
	☒ 2. 166th	
	☒ 3. 160th	
	☒ 4. 162nd	
Q.90	Calculate the population standard deviation of the data 13, 17, 23, 26, 31, 28, 15, 34, 17, and 26. (Round off your answer to two decimal places.)	
Ans	☒ 1. 7.18	
	☒ 2. 7.26	
	☒ 3. 6.81	
	☒ 4. 6.19	

Q.91	Refer to the following letter, number, symbol series and answer the question that follows. (NOTE: All numbers are single digit numbers only) Counting to be done from left to right only. (Left) H 9 & 3 L ! 6 M \$ 7 R @ 4 C % 2 F # 5 K * 8 P (Right) How many such symbols are there, each of which is immediately preceded by a number and also immediately followed by another symbol?	
Ans	☒ 1. Two	
	☒ 2. None	
	☒ 3. One	
	☒ 4. Three	
Q.92	Five years ago, the ratio of the ages of Amit and Bhanu was 2 : 3. Fifteen years from now, their ages will be in the ratio of 5 : 6. Find the sum of their present ages. (Give your answer in years and months, if relevant.)	
Ans	☒ 1. 43 years, 4 months	
	☒ 2. 80 years	
	☒ 3. 43 years	
	☒ 4. 43 years, 3 months	
Q.93	Akshay has borrowed an amount of ₹440000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 5% per annum after 4 years?	
Ans	☒ 1. 87000	
	☒ 2. 89000	
	☒ 3. 78000	
	☒ 4. 88000	
Q.94	What should be done in order to minimise waste production?	
Ans	☒ 1. Increase plastic usage	
	☒ 2. Maximise plastic packaging of products	
	☒ 3. Use non-biodegradable products	
	☒ 4. Change and adapt sustainable lifestyle	
Q.95	When using the sign convention for spherical mirrors, which direction along the principal axis is considered positive?	
Ans	☒ 1. To the right of the origin (along + x-axis)	
	☒ 2. To the left of the origin (along - x-axis)	
	☒ 3. Upwards from the principal axis	
	☒ 4. Downwards from the principal axis	
Q.96	Seven people, F, J, M, L, R, V and X, are sitting in a row, facing north. Only three people sit to the left of X. Only M sits to the right of R. Only three people sit between R and V. J sits at some place to the left of L but at some place to the right of F. How many people sit to the left of V?	
Ans	☒ 1. 4	
	☒ 2. 2	
	☒ 3. 3	
	☒ 4. 1	

Q.97	The radius and slant height of a cone are 59.5 cm and 85 cm, respectively. Find its total surface area. (Take $\pi = \frac{22}{7}$)	
Ans	☒ 1. 30,021.5 cm ²	
	☒ 2. 28,021.5 cm ²	
	☒ 3. 27,021.5 cm ²	
	☒ 4. 27,000.5 cm ²	
Q.98	What is the sign of the focal length for a convex lens as per the sign convention for spherical lenses?	
Ans	☒ 1. Zero	
	☒ 2. Variable	
	☒ 3. Negative	
	☒ 4. Positive	
Q.99	A student uses a convex lens to project an image of a tree onto a wall. If the image is found to be smaller than the tree, what can be inferred about the tree's position relative to the lens?	
Ans	☒ 1. The tree is at twice the focal length from the lens.	
	☒ 2. The tree is placed beyond twice the focal length (beyond 2F) of the lens.	
	☒ 3. The tree is between the lens and its focal point.	
	☒ 4. The tree is at the focal point of the lens.	
Q.100	Which demand advanced by the Moderate leadership of the Indian National Congress (1885–1905) most clearly reflected their objective of expanding Indian involvement within colonial decision-making structures?	
Ans	☒ 1. Curtailment of regressive indirect taxation	
	☒ 2. Expansion of legislative councils for Indian representation	
	☒ 3. Immediate transfer of political authority to Indian hands	
	☒ 4. Preferential allocation of bureaucratic appointments to Indians	