



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARD
सीईएन ०२/२०२६ - तकनीशियन ग्रेड। सिगनल और तकनीशियन ग्रेड III
CEN 02/2026 - Technician Grade I Signal and Technician Grade III



Test Date	08/10/2026
Test Time	12:45 PM - 2:15 PM
Subject	RRB Technician Grade III

* 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 : Mathematics

Q.1	In $\triangle ABC$, $DE \parallel AC$, where D and E are the points on sides AB and BC, respectively. If $BD = 10$ cm and $AD = 4$ cm, then what is the ratio of the area of $\triangle BDE$ to the trapezium ADEC?
Ans	☒ A. 26 : 25 ☒ B. 25 : 26 ☒ C. 25 : 24 ☒ D. 24 : 25
Q.2	Five years ago from now, Aman was 6 times as old as Chaman. After 5 years from now, he will be 2 times as old as Chaman will then be. The present age of Aman (in years) is:
Ans	☒ A. 20 ☒ B. 19 ☒ C. 12 ☒ D. 16
Q.3	A school has three classes: X, Y and Z. Class X has 25 students with an average score of 70, Class Y has 35 students with an average score of 80, and Class Z has M students with an average score of 90. If the average score of all students is 80, find the value of M.
Ans	☒ A. 15 ☒ B. 20 ☒ C. 10 ☒ D. 25
Q.4	There are 48 students in section A and 52 students in section B of a class in a school. What is the minimum number of books required for their class library so that they can distribute equally among the students of section A or section B?
Ans	☒ A. 623 ☒ B. 625 ☒ C. 624 ☒ D. 626
Q.5	The sum of prime numbers upto 75 is:
Ans	☒ A. 711 ☒ B. 712 ☒ C. 714 ☒ D. 713

Q.6 A store applies two successive discounts of 20% and $(5y - 2)\%$ on the marked price of an item. If the final selling price is 60% of the marked price, what is the value of y ?

- Ans
- ☒ A. 4.4
 - ☒ B. 5.4
 - ☒ C. 6.4
 - ☒ D. 7.4

Q.7 Simplify: $\left(1 + \frac{q^2 - p^2 - r^2}{2pr}\right) \times \left(\frac{1}{q + p - r} + \frac{1}{r + q - p}\right)$

- Ans
- ☒ A. $\frac{1}{pqr}$
 - ☒ B. $\frac{q}{pr}$
 - ☒ C. $\frac{r}{pq}$
 - ☒ D. $\frac{p}{qr}$

Q.8 Two trains of lengths 120 metres and 180 metres are running in opposite directions on parallel tracks. The speed of the first train is 54 km/hr, and the speed of the second train is 72 km/hr. How much time will it take for the two trains to completely cross each other (rounded off to the nearest integer)?

- Ans
- ☒ A. 7 seconds
 - ☒ B. 9 seconds
 - ☒ C. 15 seconds
 - ☒ D. 12 seconds

Q.9 The average sale of cars by a dealer per day in the month of March, other than on Saturdays and Sundays, is 156. The average sale of cars per day on Sundays is 167. 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 150?

- Ans
- ☒ A. 113
 - ☒ B. 109
 - ☒ C. 110
 - ☒ D. 111

Q.10 If $\frac{1}{(\operatorname{cosec}\theta + 1)} + \frac{1}{(\operatorname{cosec}\theta - 1)} = 2\sec\theta$, $0^\circ < \theta < 90^\circ$, then the value of $\frac{\cot\theta - 2\operatorname{cosec}\theta}{\sec\theta}$ is:

- Ans
- ☒ A. $\frac{-\sqrt{2} - 4}{2}$
 - ☒ B. $\frac{\sqrt{2} + 4}{2}$
 - ☒ C. $\frac{\sqrt{2} - 4}{2}$
 - ☒ D. $\frac{-\sqrt{2} + 4}{2}$

Q.11 The radius of the base of a cone is 7 cm and its slant height is 25 cm. The entire outer surface of the cone is to be painted at the rate of ₹2 per cm^2 . What is the total cost of painting the cone? (Use $\pi = \frac{22}{7}$)

- Ans
- ☒ A. ₹1,424
 - ☒ B. ₹1,440
 - ☒ C. ₹1,408
 - ☒ D. ₹1,480

Q.12 If 20% of k is 10 less than 1800% of 15, then k is:

- Ans
- ☐ A. 1340
 - ☐ B. 1280
 - ☐ C. 1260
 - ☒ D. 1300

Q.13 The four numbers X, $\sqrt{\frac{49}{121}}$, $1\frac{1}{3}$, and 4 are in proportion, then the value of X is:

- Ans
- ☒ A. $0.\overline{21}$
 - ☐ B. $\frac{7}{11}$
 - ☐ C. $2\frac{1}{3}$
 - ☐ D. $0.\overline{3}$

Q.14 A shopkeeper bought 6 identical mobile phones for a total of ₹30,000. He then sold 2 of these mobile phones for a total of ₹19,000. What is his gain percentage on the phones sold?

- Ans
- ☐ A. 88%
 - ☒ B. 90%
 - ☐ C. 91%
 - ☐ D. 89%

Q.15 Pipe P can fill a tank in 10 hours and Pipe Q can fill it in 20 hours. If both pipes are opened together for 5 hours, what fraction of the tank is still empty?

- Ans
- ☐ A. $\frac{1}{5}$
 - ☐ B. $\frac{1}{2}$
 - ☐ C. $\frac{1}{3}$
 - ☒ D. $\frac{1}{4}$

Q.16 The median of a symmetric distribution is 32 and the mode is 29. What is the mean?

- Ans
- ☐ A. 34
 - ☐ B. 36
 - ☐ C. 35.5
 - ☒ D. 33.5

Q.17 A cylindrical pillar is 20 cm in diameter and 35 m in height. Find the cost of painting the curved surface of the pillar at the rate of ₹30 per m².

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

- Ans
- ☒ A. ₹660
 - ☐ B. ₹704
 - ☐ C. ₹669
 - ☐ D. ₹707

Q.18 Two tangents AB and BC are drawn to the circle with centre O, such that $\angle ABC = 60^\circ$. If AB = 8.7 cm, find the length of OB.

- Ans
- ☒ A. $5.8\sqrt{3}$ cm
 - ☐ B. $8.5\sqrt{3}$ cm
 - ☐ C. $5\sqrt{3}$ cm
 - ☐ D. $8\sqrt{3}$ cm

Q.19 Three years ago, the populations of Villages S and T were in the ratio 7 : 2. Since then, S's population has increased by 3% per year, while T's population has decreased by 3% per year. If their combined population today is 36,155, what was the population of Village T three years ago? (Round your answer to the nearest integer)

- Ans ☒ A. 7,432
☒ B. 7,632
☒ C. 7,732
☒ D. 7,532

Q.20 A man has invested ₹57500 at a rate of 12% per annum simple interest for 2 years. Find the amount (in ₹) that he will receive after 2 years.

- Ans ☒ A. 71300
☒ B. 13800
☒ C. 14800
☒ D. 72300

Q.21 A certain sum amounts to ₹24255 in 12 months at 10% per annum compounded half-yearly. Find the sum.

- Ans ☒ A. ₹22000
☒ B. ₹33000
☒ C. ₹24000
☒ D. ₹21000

Q.22 A has 72 articles whereas B has X same kind of articles. If the ratio of articles of A and B is 9 : 11. Then the value of $72 + X$ is:

- Ans ☒ A. 160
☒ B. 200
☒ C. 180
☒ D. 140

Q.23 A train moving at 72 km/h crosses a platform 200 m long in 25 seconds. Find the length of the train.

- Ans ☒ A. 250 m
☒ B. 200 m
☒ C. 300 m
☒ D. 350 m

Q.24 Ali sold an article for ₹6400. If the cost price of the article was ₹5600, then the profit percentage earned by Ali was:

- Ans ☒ A. 14%
☒ B. $15\frac{1}{7}\%$
☒ C. $14\frac{2}{7}\%$
☒ D. 15%

Q.25 Ram can do a job in x days. Mohan is twice as fast as Ram. Raghav is 50% more efficient than Mohan. If Ram, Mohan and Raghav together finish the job in 4 days, what is the value of x?

- Ans ☒ A. 26
☒ B. 28
☒ C. 22
☒ D. 24

Q.26	In a certain code language, 'youth bean phone' is coded as ' jp wr sd' and 'lady phone song' is coded as 'wd lz wr'. How is 'phone' coded in the given language?
Ans	☒ A. wr ☒ B. wd ☒ C. jp ☒ D. sd
Q.27	18 is related to 59 following a certain logic. Following the same logic, 23 is related to 74. To which of the following is 31 related, following the same logic? (NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)
Ans	☒ A. 98 ☒ B. 102 ☒ C. 106 ☒ D. 112
Q.28	What should come in place of '?' in the given series? 18 21 25 30 36 ?
Ans	☒ A. 51 ☒ B. 43 ☒ C. 65 ☒ D. 41
Q.29	What should come in place of the question mark (?) in the given series based on the English alphabetical order? BUN HAT NGZ TMF ?
Ans	☒ A. ZSL ☒ B. ZLS ☒ C. ZSE ☒ D. ZES
Q.30	Refer to the following letter series and answer the question. Counting to be done from left to right only. (Left) S Q B T V J Y H G T E X A J T E H Y B V F T E B M (Right) How many such consonants are there each of which is immediately preceded by a vowel and also immediately followed by a vowel?
Ans	☒ A. None ☒ B. One ☒ C. Three ☒ D. Two
Q.31	If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 5482136, how many digits will appear more than once in the new number thus formed?
Ans	☒ A. One ☒ B. None ☒ C. Two ☒ D. Three
Q.32	Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster pair.)
Ans	☒ A. FI-EH ☒ B. SV-QW ☒ C. AD-ZC ☒ D. LO-KN

Q.33 A, B, C, D, E and F 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.
D lives on an odd numbered floor but not 5. The sum of floors on which D and F live is 5. Only 3 people live between F and B. C lives immediately above A.
How many people live between C and D?

- Ans

A. 2

B. 1

C. 4

D. 3

Q.34 Refer to the following letter series and answer the question.
(Left) M S H T N D K U Z G O A Q C R X F I W Y E (Right)
How many letters are there in the English alphabetical series between the letter which is seventh from the right end and fifth from the left end of the series?

- Ans

A. Four

B. Three

C. Six

D. Five

Q.35 Amit starts from Point A and drives 9 km towards south. He then takes a right turn, drives 14 km, turns right and drives 12 km. He then takes a right turn and drives 18 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

A. 5 km to the east

B. 4 km to the east

C. 5 km to the west

D. 4 km to the west

Q.36 If '+' means '×', '−' means '+', '×' means '÷', '÷' means '−', then what will come in place of the question mark (?) in the following equation?

 $12 - 6 + 3 \times 2 = ?$

- Ans

A. 15

B. 9

C. 21

D. 18

Q.37 In the word JOURNEY, if the letters are arranged in reverse alphabetical order, how many letters retain their original position?

- Ans

A. Three

B. Two

C. One

D. None

Q.38 L is the brother of Y. Y is the father of V. E is the father of Q. Q is the son of V. How is L related to Q?

- Ans

A. Father's brother

B. Wife's father's brother

C. Mother's father's brother

D. Brother

Q.39	If 'A' stands for '+', 'B' stands for '−', 'C' stands for '×', and 'D' stands for '÷', what will come in place of the question mark (?) in the following equation? 11 C 4 B 21 D 3 A 12 = ?
Ans	✗ A. 51 ✗ B. 45 ✓ C. 49 ✗ D. 47
Q.40	What should come in place of '?' in the given series? 31, 33, 37, 43, 51 ?
Ans	✗ A. 60 ✗ B. 62 ✗ C. 63 ✓ D. 61
Q.41	FGDZ is related to XYVR in a certain way based on the English alphabetical order. In the same way, VWTP is related to NOLH. To which of the following is GHEA related, following the same logic?
Ans	✗ A. YYVS ✗ B. YAVB ✓ C. YZWS ✗ D. YZVS
Q.42	LNLM is related to PRPQ in a certain way based on the English alphabetical order. In the same way, QSQR is related to UWUV. To which of the following is ZBZA related, following the same logic?
Ans	✗ A. DECE ✗ B. DGC I ✓ C. DFDE ✗ D. DFCE
Q.43	In this question, a question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and decide the appropriate answer. Q. Five people – M, N, O, P, and Q – are sitting around a circular table facing the center. Who is sitting exactly between M and Q? (I) O is sitting to the immediate right of M. N is to the immediate left of Q. (II) P is sitting to the immediate left of O. M is not adjacent to Q.
Ans	✗ A. Data in Statement II alone is sufficient to answer the question while data in statement I is not ✓ B. Both statements I and II together are NOT sufficient to answer the question ✗ C. Both statements I and II together (and not statement 1 alone or statement 2 alone) are sufficient to answer the question. ✗ D. Data in Statement I alone is sufficient to answer the question while data in statement II is not
Q.44	In a certain code language, 'GOAT' is coded as '7269' and 'TEAO' is coded as '4679'. What is the code for 'E' in the given code language?
Ans	✗ A. 7 ✗ B. 6 ✗ C. 9 ✓ D. 4
Q.45	A, B, C, D, E and F 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. The product of floors on which A and B live is 10. E lives immediately above C. The sum of floors on which D and A live is 11. What is the sum of floors on which B and E live?
Ans	✗ A. 7 ✓ B. 6 ✗ C. 5 ✗ D. 8

Q.46 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 @ 9 # 5 ? 2 ! 0 & 4

Code V Y A D F I L O R U

- 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 third element.

What is the code for the following group of number-symbols?
5 ? & 0 2

- Ans ☒ A. © F R O ©
☒ B. D F R O I
☒ C. © F O R I
☒ D. D F R O ©

Q.47 In the word PRIVATE, when all letters are arranged in English alphabetical order (from left to right). Which of the letters are in the 3rd and 4th position (from left to right) in the new arrangement?

- Ans ☒ A. I P
☒ B. E I
☒ C. R T
☒ D. P R

Q.48 Seven people, P, Q, R, S, T, U and V, are sitting in a row facing north. Only two people sit between Q and S. T sits to the immediate left of U. R sits third to the right of Q. V is the immediate neighbor of both S and P. If the person sitting at the extreme left end swaps his position with V, who will now be the immediate neighbor of V?

- Ans ☒ A. Q
☒ B. S
☒ C. T
☒ D. P

Q.49 Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans ☒ A. XC - EJ
☒ B. WB - DI
☒ C. OT - BI
☒ D. BG - IN

Q.50 In this question, a question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and decide the appropriate answer.
Among 5 poles, E, H, N, O and Y each having a different height, which pole is the shortest?
(I) Y is taller than N.
(II) O is taller than Y. E is only shorter than one pole.

- Ans ☒ A. Data in statement II alone is sufficient to answer the question while data in statement I is not
☒ B. Both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question
☒ C. Both statements I and II together are NOT sufficient to answer the question
☒ D. Data in statement I alone is sufficient to answer the question while data in statement II is not

Q.51	If a person stands close to a wall and pushes the wall with his hands, which of the following is a correct statement regarding the force exerted by the wall on the person?
Ans	☒ A. The wall does not exert any force on the person. ☒ B. The wall exerts a greater force in the same direction as the direction of the push. ☒ C. The wall pulls the person toward itself. ☒ D. The wall exerts an equal and opposite force back on the person.
Q.52	A hockey puck of mass 0.5 kg slides across ice with an initial velocity of 8 m/s. If a player applies a constant force for 0.5 s and the puck's velocity increases to 12 m/s, what is the magnitude of the applied force?
Ans	☒ A. 6 N ☒ B. 2 N ☒ C. 8 N ☒ D. 4 N
Q.53	When an object is moving along a straight line at a variable speed, how can we express the magnitude of its rate of motion?
Ans	☒ A. Displacement ☒ B. Average velocity ☒ C. Total acceleration ☒ D. Constant speed
Q.54	Which scenario demonstrates negative work being done by a person on a suitcase?
Ans	☒ A. A person lifting a suitcase vertically upward ☒ B. A person holding a suitcase stationary over their head ☒ C. A person lowering a suitcase slowly to the ground ☒ D. A person dropping a suitcase so it falls freely under gravity
Q.55	Which of the following statements best explains what happens to the speed of sound when it travels from air into water?
Ans	☒ A. The speed of sound remains the same in air and water. ☒ B. The speed of sound increases as it moves from air to water. ☒ C. The speed of sound changes the pitch as it enters water. ☒ D. The speed of sound decreases as it moves from air to water.
Q.56	Which of the following is not an example of uniform circular motion?
Ans	☒ A. A ball rolling on a straight road ☒ B. The moon revolving around the Earth ☒ C. The blades of a ceiling fan rotating at constant speed ☒ D. An artificial satellite orbiting the Earth
Q.57	Which of the following statements is incorrect about the fluid mosaic model?
Ans	☒ A. Cell membrane consists of a lipid bilayer. ☒ B. Membrane molecules can move sideways, flip, and rotate, making it fluid in nature. ☒ C. Layer of special fat molecules with water-attracting heads faces outward and water-repelling tails inward. ☒ D. Fats in the membrane act as gatekeepers, helping substances pass through.
Q.58	Bryophytes exhibit limited ability to colonize dry terrestrial environments compared to pteridophytes as:
Ans	☒ A. They lack vascular tissues and need moisture. ☒ B. They produce seeds that cannot survive in dry conditions. ☒ C. They have needle-like leaves that reduce water loss. ☒ D. They reproduce through flowers that require insect pollination.

Q.59 A runner completes a 400 m circular track in 80 s, ending at the starting point. What is the magnitude of average velocity for this run?

- Ans
- ☐ A. 5 m/s
 - ☐ B. 4 m/s
 - ☐ C. 10 m/s
 - ☒ D. 0 m/s

Q.60 If two organisms belong to the same genus but different species, it means:

- Ans
- ☐ A. They are less related than organisms in different genera.
 - ☐ B. They have no common characteristics.
 - ☒ C. They are closely related but differ at the species level.
 - ☐ D. They are identical in all characteristics.

Q.61 Animals with a backbone are classified under the subphylum _____.

- Ans
- ☒ A. Vertebrata
 - ☐ B. Annelida
 - ☐ C. Mollusca
 - ☐ D. Arthropoda

Q.62 Which of the following best describes how plants exhibit movement due to growth?

- Ans
- ☒ A. A stem bending toward a light source
 - ☐ B. Roots absorbing water from the soil
 - ☐ C. A Mimosa leaf closing when touched
 - ☐ D. A Venus flytrap leaf snapping shut

Q.63 During a hike, a person walks 7 km east and then 24 km north. Which description best matches the person’s resultant displacement vector?

- Ans
- ☒ A. A vector of 25 km pointing northeast from the starting point
 - ☐ B. A vector of 7 km pointing east from the starting point
 - ☐ C. A vector of 24 km pointing north from the starting point
 - ☐ D. A vector of 31 km pointing north from the starting point

Q.64 Which of the following simple machines should be used to lift a large rock vertically upwards with least effort, given all the simple machines are ideally designed?

- Ans
- ☐ A. A lever with a short effort arm
 - ☒ B. A pulley system with multiple supporting strands
 - ☐ C. A single fixed pulley for changing direction
 - ☐ D. An inclined plane at a steep angle

Q.65 Which of the following would change if a neutron is added to the nucleus of an atom, but not a proton or electron?

- Ans
- ☐ A. The charge on the nucleus would become negative.
 - ☒ B. The mass number would increase, but the charge of element would not change.
 - ☐ C. The atomic number would increase, changing the element.
 - ☐ D. The number of electrons would change, altering reactivity.

Q.66 Which formula is correct for calculating power(P) when work(W) and time(t) are given?

- Ans
- ☐ A. $P = W + t$
 - ☐ B. $P = W - t$
 - ☒ C. $P = W/t$
 - ☐ D. $P = W \times t$

Q.67 The statement that electrons are embedded in a positive sphere is explained by which model?

- Ans
- ☐ A. Bohr’s model
 - ☐ B. Rutherford model
 - ☒ C. Plum Pudding model
 - ☐ D. Heisenberg

Q.68	A plant is kept in a sealed glass container for several days. Which life process is most likely to be affected?
Ans	☒ A. Gas exchange with surrounding ☐ B. Transport of nutrients ☐ C. Water absorption by roots ☐ D. Conversion of food into energy
Q.69	Which of the following is not a connective tissue in animals?
Ans	☐ A. Cartilage ☐ B. Tendon ☐ C. Ligament ☒ D. Neuron
Q.70	'Interconversion of states of matter' and 'burning' are examples of:
Ans	☐ A. both chemical changes ☐ B. chemical and physical change, respectively ☐ C. both physical changes ☒ D. physical and chemical change, respectively
Q.71	Which process is carried out by Azotobacter bacteria in the soil as part of the nitrogen cycle?
Ans	☐ A. Conversion of nitrates into nitrogen gas ☐ B. Conversion of ammonia into proteins ☐ C. Conversion of ammonia into nitrites ☒ D. Conversion of nitrogen gas into ammonia
Q.72	Which of the following statements is/are correct about the twinkling of stars as observed from Earth? (i) Twinkling occurs due to atmospheric refraction. (ii) The density of Earth's atmosphere is uniform at all heights. (iii) The apparent position of stars shifts slightly due to changing atmospheric conditions. (iv) Twinkling is more pronounced for planets than for stars.
Ans	☐ A. Both (ii) and (iv) ☐ B. Both (iii) and (iv) ☒ C. Both (i) and (iii) ☐ D. Both (i) and (ii)
Q.73	A student shines a laser beam from water into air at an angle to the normal. She observes that the beam bends away from the normal as it passes into air. Which concept of the laws of refraction is best demonstrated by this observation?
Ans	☒ A. When light travels from a denser to a rarer medium, it bends away from the normal. ☐ B. Light always travels straight through different media, which is explained by the laws of refraction. ☐ C. Total internal reflection explains the behavior when the laser beam passes into air. ☐ D. The law of reflection determines that the laser beam bends away from the normal.
Q.74	The element commonly referred to as the "building block of life" is:
Ans	☒ A. Carbon ☐ B. Iron ☐ C. Helium ☐ D. Sulphur
Q.75	Which of the following events marks the beginning of the menstrual cycle in human females?
Ans	☐ A. Fertilization of ovum by sperm cell ☐ B. Ovulation of a mature egg ☐ C. Implantation of fertilized egg ☒ D. Shedding of the uterine lining

- Q.76

A solution of ammonium sulfate is found to have a pH of about 5. Which statement explains this observation?
- Ans

☒ A. The salt is from a weak base and strong acid, causing acidic hydrolysis

☐ B. The salt acts as a buffer, resisting pH change

☐ C. The salt is from a weak acid and strong base, causing basic hydrolysis

☐ D. The salt is from a strong base and strong acid, making it neutral
- Q.77

Which layer of the atmosphere is primarily responsible for most weather phenomena on Earth?
- Ans

☐ A. Mesosphere

☒ B. Troposphere

☐ C. Thermosphere

☐ D. Stratosphere
- Q.78

What is a common observation when magnesium reacts with air?
- Ans

☐ A. It forms green crystals

☒ B. It forms a white powdery ash

☐ C. It forms a blue solution

☐ D. It forms a red residue
- Q.79

Bleaching powder is obtained by the action of chlorine gas on:
- Ans

☒ A. slaked lime

☐ B. lime water

☐ C. water

☐ D. quicklime
- Q.80

Which symbol represents the element oxygen?
- Ans

☒ A. O

☐ B. C

☐ C. S

☐ D. N
- Q.81

Which of the following factors contributes to the high plant diversity in India?
- Ans

☒ A. Varied climatic zones

☐ B. Limited rainfall

☐ C. Consistent altitude

☐ D. Uniform soil types
- Q.82

An object is placed at a distance of twice the focal length (2F) from a convex lens along its principal axis. What is the nature and position of the image formed?
- Ans

☐ A. Image is at infinity; real and inverted

☒ B. Image is at 2F on the other side; real, inverted and same size

☐ C. Image is between F and 2F; real, inverted and diminished

☐ D. Image is at focus; real, inverted and diminished
- Q.83

Which statement best illustrates the Law of Constant Proportions when considering the composition of water from different sources?
- Ans

☐ A. Hydrogen and oxygen combine in any ratio to form water.

☐ B. Hydrogen and oxygen form water only under certain temperature and pressure.

☒ C. Water from any source contains hydrogen and oxygen in the same mass ratio.

☐ D. Water contains hydrogen and oxygen in different ratios depending on its source.
- Q.84

Reverberation is the phenomenon of:
- Ans

☐ A. Refraction of sound waves

☐ B. Reflection of sound once

☐ C. Absorption of sound

☒ D. Persistence of sound due to multiple reflections

Q.85 How does soap help in cleaning greasy clothes?

- Ans
- ☒ A. It forms micelles that trap grease and wash it away
 - ☐ B. It reacts with water to form acid
 - ☐ C. It dissolves grease in water directly
 - ☐ D. It changes the colour of grease to make it invisible

Q.86 Why does diamond have a much higher hardness compared to graphite?

- Ans
- ☐ A. Graphite is made of flexible chains of atoms
 - ☒ B. Diamond has a three-dimensional network with strong bonds
 - ☐ C. Graphite has metallic bonding between atoms
 - ☐ D. Diamond has loosely packed atoms in sheets

Q.87 Which of the following best describes a heterogeneous mixture?

- Ans
- ☐ A. A mixture of gases with identical properties
 - ☒ B. A mixture where the components are not uniformly distributed
 - ☐ C. A substance containing only one kind of particle
 - ☐ D. A mixture where the components are evenly mixed throughout

Q.88 A mining company discovers a new metal that is low in the activity series and is found in its native state. Which extraction method should the company prioritize to obtain the pure metal efficiently?

- Ans
- ☐ A. Thermal decomposition of the ore
 - ☐ B. Electrolysis of molten metal salt
 - ☐ C. Roasting in air followed by reduction
 - ☒ D. Physical separation such as hand picking or washing

Q.89 Which type of tissue is mainly responsible for movement in the musculoskeletal system?

- Ans
- ☐ A. Connective tissue
 - ☒ B. Muscle tissue
 - ☐ C. Epithelial tissue
 - ☐ D. Nervous tissue

Q.90 Damage to which part of the brain is most likely to cause immediate disruption of breathing and heartbeat?

- Ans
- ☐ A. Cerebrum
 - ☒ B. Medulla oblongata
 - ☐ C. Cerebellum
 - ☐ D. Hypothalamus

Section : **General Awareness**

Q.91 In February 2026, the qualification-level load test of the Drogue Parachute for the Gaganyaan mission was conducted by DRDO at which facility?

- Ans
- ☐ A. Defence Bioengineering and Electromedical Laboratory, Bengaluru
 - ☐ B. Integrated Test Range, Chandipur
 - ☐ C. Aeronautical Test Range, Chitradurga
 - ☒ D. Rail Track Rocket Sled facility of TBRL, Chandigarh

Q.92 In June 2026, the 20th National Statistics Day was celebrated under which theme?

- Ans
- ☐ A. Statistics for Sustainable Development
 - ☐ B. Harnessing Official Statistics for Growth
 - ☒ C. Unlocking the Potential of Administrative Data
 - ☐ D. Data-Driven Governance for Viksit Bharat

Q.93 During the national consultation workshop held in November 2025, which international organization’s representative recognized India as one of the world’s largest contributors to the global nursing workforce?

- Ans**
- ☐ A. United Nations Children's Fund (UNICEF)
 - ☐ B. World Family welfare Organization (WFWO)
 - ☐ C. International Council of Nurses (ICN)
 - ☒ D. World Health Organization (WHO)

Q.94 The Third India–Australia Annual Summit was held on 9 July 2026 in which of the following places?

- Ans**
- ☒ A. Melbourne
 - ☐ B. Perth
 - ☐ C. New Delhi
 - ☐ D. Chennai

Q.95 Which one of the following policy reforms implemented in late 2025 mandated safety provisions, including transport facilities, for women working night shifts in India?

- Ans**
- ☐ A. POSH Act, amendment 25, 2021
 - ☐ B. Vishaka Guidelines 2019
 - ☒ C. Occupational Safety, Health and Working Conditions Code, 2020
 - ☐ D. Safe City Project, labour working conditions act 2021

Q.96 In March 2026, the Indian Armed Forces contingent arrived at which of the following places to participate in the eleventh edition of the Joint Military Exercise “LAMITIYE-2026”?

- Ans**
- ☒ A. Seychelles
 - ☐ B. Maldives
 - ☐ C. Mauritius
 - ☐ D. Thailand

Q.97 In February 2026, the Digital India BHASHINI Division (DIBD) signed an MoU with which institution to enhance multilingual banking services?

- Ans**
- ☐ A. National Payments Corporation of India (NPCI)
 - ☒ B. Reserve Bank of India (RBI)
 - ☐ C. Securities and Exchange Board of India (SEBI)
 - ☐ D. Small Industries Development Bank of India (SIDBI)

Q.98 The agreement signed in July 2026 to resolve pending payment issues under the Narmada Award involved which group of States?

- Ans**
- ☒ A. Gujarat, Madhya Pradesh, Maharashtra and Rajasthan
 - ☐ B. Maharashtra, Chhattisgarh, Gujarat and Rajasthan
 - ☐ C. Madhya Pradesh, Gujarat, Telangana and Maharashtra
 - ☐ D. Gujarat, Rajasthan, Uttar Pradesh and Madhya Pradesh

Q.99 In June 2026, who was granted an extension and reappointed as the Chairman of the Central Board of Direct Taxes (CBDT) until December 31, 2026?

- Ans**
- ☐ A. Tuhin Kanta Pandey
 - ☐ B. Nitin Gupta
 - ☒ C. Ravi Agrawal
 - ☐ D. Sanjay Malhotra

Q.100 The book “Sanskritir Ratna Bhandar: Bhaowaiyar Itibritto“, released by Vice President C. P. Radhakrishnan in June 2026, was written by whom?

- Ans**
- ☒ A. Dr. Jayanta Kumar Roy and Sangita Roy
 - ☐ B. Uday Sankar Bhattacharya and Sangita Roy
 - ☐ C. Jayanta Mahapatra and Sangita Roy
 - ☐ D. Dr. Jayanta Kumar Roy and Ananda Roy