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	4:30 PM - 6:00 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 The value of $\frac{\sin\theta}{\sec\theta+\tan\theta-1}+\frac{\cos\theta}{\operatorname{cosec}\theta+\cot\theta-1}$ is

Ans A). -1 B). 1 C). 0 D). 2

Correct Answer: B

Q.2 **Two years ago from now, Hitesh was 6 times as old as Jitesh. After 2 years from now, he will be 2 times as old as Jitesh will then be. The present age of Hitesh (in years) is:**

Ans A). 5 B). 6 C). 7 D). 8

Correct Answer: D

Q.3 **The length and breadth of a rectangular tank are such that when each is increased by 6 m, their ratio becomes 7 : 5. When each is decreased by 8 m, their ratio becomes 1 : 3. Find the breadth of the tank.**

Ans A). 3.00 meters B). 2.25 meters C). 2.50 meters D). 2.75 meters

Correct Answer: D

Q.4 **If the surface area of sphere is 616 cm^2, find its radius.** $\left(\text{Use } \pi=\frac{22}{7}\right)$

Ans A). 4 cm B). 7 cm C). 5 cm D). 6 cm

Correct Answer: B

Q.5 **Two pipes, Pipe A and Pipe B, can fill a tank in 8 hours and 12 hours, respectively. If both pipes are opened together, in how many hours will the tank be filled?**

Ans A). 5.5 hours B). 6.4 hours C). 4.8 hours D). 10.6 hours

Correct Answer: C

Q.6 **For a certain principal and annual rate of interest, the difference between the compound interest (compounded annually) and the simple interest after 2 years is ₹720. If both the principal and the annual rate of interest are doubled, what will be the new difference between the compound interest and the simple interest after 2 years?**

Ans A). ₹2,880 B). ₹5,760 C). ₹4,320 D). ₹5,040

Correct Answer: B

Q.7 **The amount on a sum of ₹2500 at 18% per annum compound interest, compounded annually, in 2 years will be:**

Ans A). ₹3365 B). ₹3481 C). ₹4116 D). ₹4198

Correct Answer: B

Q.8 The 7-digit number 236A3B9 is divisible by 3. Find the least possible value of (A+B).

Ans A). 4 B). 1 C). 10 D). 7

Correct Answer: B

Q.9 The median of the numbers, 5, 2x, 14, 18, 21 is 14. If x is positive integer, then number of possible values of x, is:

Ans A). 5 B). 4 C). 3 D). 7

Correct Answer: D

Q.10 Two trains start simultaneously from two stations and travel towards each other at speeds of 72 km/hr and 90 km/hr. When they meet, one train has traveled 72 km more than the other. Find the distance (in km) between the two stations.

Ans A). 696 B). 648 C). 712 D). 674

Correct Answer: B

Q.11 Simplify: $\frac{2\sin^2 A - \sin^4 A + \cos^4 A}{3\sin^4 A - 2\sin^6 A + 3\cos^4 A - 2\cos^6 A}$

Ans A). 1 B). sinA C). −1 D). secA

Correct Answer: A

Q.12 A car travels one-third of a distance at 30 km/h, one-third at 60 km/h, and the remaining one-third at 90 km/h. Find the average speed (in km/h).

Ans A). 536/11 B). 540/11 C). 545/11 D). 548/11

Correct Answer: B

Q.13 The sides of a triangle are in the ratio 13 : 14 : 15 and its perimeter is 42 cm. What is the area of the triangle?

Ans A). 168 cm^2 B). 120 cm^2 C). 42 cm^2 D). 84 cm^2

Correct Answer: D

Q.14 In a distribution, the mode is 18 and the mean is 22. Find the median. (Rounded off to 2 decimal places.)

Ans A). 21.33 B). 21.00 C). 20.33 D). 20.67

Correct Answer: D

Q.15 A man has invested ₹57500 at a rate of 8% per annum simple interest for 3 years. Find the amount (in ₹) that he will receive after 3 years.

Ans A). 13800 B). 71300 C). 14800 D). 72300

Correct Answer: B

Q.16 Find the value of $\left[2^{-1}\left\{\left(\frac{3}{4}\right)^2 + \left(\frac{4}{3}\right)^{-2}\right\}^{-1}\right]$.

Ans A). $\frac{2}{9}$ B). $\frac{14}{9}$ C). $\frac{4}{9}$ D). $\frac{1}{3}$

Correct Answer: C

Q.17 A tank is provided with two inlet pipes, A and B, and one outlet pipe, C. Pipe A alone can fill the tank completely in 12 hours, while pipe B alone can do so in 18 hours. Pipe C, on the other hand, can empty the full tank in 36 hours. Initially, all three pipes are opened simultaneously and allowed to operate together. After 4 hours of operation, the outlet pipe C is closed, while the inlet pipes A and B continue to function. Determine how much additional time (in hours) will be required to fill the tank completely.

Ans A). 4 B). 5 C). 6 D). 3

Correct Answer: A

Q.18 If x : 12 = 5 : 6, what is the value of x?

Ans A). 14 B). 8 C). 12 D). 10

Correct Answer: D

Q.19 The average sale of cars by a dealer per day in the month of March, other than on Saturdays and Sundays, is 136. The average sale of cars per day on Sundays is 138. 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 199?

Ans A). 520 B). 528 C). 525 D). 521

Correct Answer: C

Q.20 A shopkeeper buys 15 notebooks at ₹20 each and sells them all for a total of ₹360. What is the profit or loss percentage?

Ans A). Loss of 20% B). Profit of 25% C). Loss of 15% D). Profit of 20%

Correct Answer: D

Q.21 **Which of the following is NOT correct regarding the properties of a circle?**

Ans A). The ratio of perimeter and diameter of a circle is constant. B). The largest chord divides the circle in two equal halves.
C). The length of a chord decreases when the chord is drawn near to centre.
D). The largest chord of the circle with radius 7 units has length 14 units.

Correct Answer: C

Q.22 **Mohit sold a watch to Raman at a profit of 8% and Raman sold it to Karan at a loss of 5%. If Karan pays ₹1,710 for it, for how much did Mohit purchase it? (Rounded off to the nearest integer)**

Ans A). ₹1,617 B). ₹1,667 C). ₹1,697 D). ₹1,637

Correct Answer: B

Q.23 **If 20% of k is 10 less than 1200% of 25, then k is:**

Ans A). 1450 B). 1410 C). 1430 D). 1490

Correct Answer: A

Q.24 **A shopkeeper marks up the price of a bag by (3y + 8)% above its cost price. He offers a 25% discount on the marked price and obtains a 2% profit. What is the value of y? (Rounded off to the nearest integer)**

Ans A). 10 B). 9 C). 8 D). 7

Correct Answer: B

Q.25 **In triangle PQR, points S and T lie on PQ and PR, respectively, such that ST ∥ QR. If PS : SQ = 4 : 7 and PT = 12 cm, then PR is equal to:**

Ans A). 24 cm B). 30 cm C). 27 cm D). 33 cm

Correct Answer: D

Section : **General Intelligence and Reasoning**

Q.26 **Z is the mother of N. N is the sister of T. O is the father of U. U is the husband of T. How is Z related to O?**

Ans A). Mother B). Wife's sister C). Son's wife's mother D). Sister

Correct Answer: C

Q.27 **What should come in place of '?' in the given series?**
28, 32, 40, 52, 68 ?

Ans A). 87 B). 89 C). 86 D). 88

Correct Answer: D

Q.28 **GDSV is related to LBXT in a certain way based on the English alphabetical order. In the same way, QZCR is related to VXHP. To which of the given options is AVMN related to, following the same logic?**

Ans A). FTRL B). GUSK C). GSQL D). ESQM

Correct Answer: A

Q.29 **In a certain code language, 'TERM' is coded as '3812' and 'RATE' is coded as '1438'. What is the code for 'A' in the given code language?**

Ans A). 2 B). 3 C). 4 D). 1

Correct Answer: C

Q.30 **Refer to the following letter series and answer the question that follows. Counting to be done from left to right only.**

(Left) E S Y C X Z O W Y O N F H G U K M H G U K T V A Q E F I H G K (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). Two C). Three D). One

Correct Answer: B

Q.31 **Mr. Z starts from Point Y and drives 3 km towards South. He then takes a left turn, drives 6 km, turns left and drives 9 km. He then takes a left turn and drives 15 km. He takes a final left turn, drives 6 km and stops at Point Z. How far (shortest distance) and towards which direction should he drive in order to reach Point Y again? (All turns are 90 degrees turns only unless specified)**

Ans A). 9 km towards East B). 7 km towards South C). 2 km towards North D). 5 km towards East

Correct Answer: A

Q.32 **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.**

Question:
Five projects – Orion, Nimbus, Vertex, Pulse and Zenith – were completed on different days from Monday to Friday of the same week. On which day was Pulse completed?

Statements:
(I) Pulse was completed one day before Zenith.
(II) Zenith was completed on Friday.

Ans A). Both statements I and II together are NOT sufficient to answer the question

B). Data in Statement II alone is sufficient to answer the question while data in Statement I is not

C). Data in Statement I alone is sufficient to answer the question while data in Statement II is not

D). Both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.

Correct Answer: D

Q.33 **The position(s) of how many letters will remain unchanged if each letter in the word SKYLINE is arranged in alphabetical order?**

Ans A). Three B). One C). None D). Two

Correct Answer: B

Q.34 **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 are to be followed directly as given in the table.**

Number/symbol	4	@	1	#	8	%	3	&	6	$	2	+	9	5
Code	J	M	H	T	A	P	K	F	B	R	D	U	L	Q

Conditions –
(i) If the first and last elements are numbers and the first element is a smaller number than the last element, the first element is to be coded with the code of the last element.
(ii) If the second and fourth elements are symbols, interchange the codes of the second and fourth elements.
(iii) If the third element is an odd number, the third element is to be coded as ©.

What is the code for the following group of numbers?
28369

Ans A). LA©BL B). LAKBL C). LAKBD D). DAKBL

Correct Answer: A

Q.35 **8 is related to 63 following a certain logic. Following the same logic, 10 is related to 99. To which of the following is 12 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 A). 143 B). 144 C). 145 D). 146

Correct Answer: A

Q.36 **What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?**
105 – 90 × 6 ÷ 3 + 110 = ?

Ans A). 44 B). 45 C). 40 D). 42

Correct Answer: C

Q.37 **What will come in the place of '?' in the following equation, if '+' and '×' are interchanged and '-' and '÷' are interchanged?**
7 × 32 - 4 + 5 ÷ 12 = ?

Ans A). 17 B). 35 C). 63 D). 87

Correct Answer: B

Q.38 **Which of the following letter-clusters will replace the question mark (?) in the given series to make it logically complete?**

DGJL GJMO ? MPSU PSVX

Ans A). JMSP B). JMPS C). JMPR D). JMRP

Correct Answer: C

Q.39 **Refer to the following series and answer the question.**
(Left)
I T A H K I J B A S I K P A H C L E F I R
A H (Right)

How many letters are there in the English alphabetical order between the letter which is seventh from the right end and third from the left end of the series?

Ans A). eleven B). ten C). twelve D). nine

Correct Answer: B

Q.40 **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 D and C live is 10. A lives immediately above E. The sum of floors on which B and D live is 11.
What is the product of floors on which A and C live?

Ans A). 8 B). 4 C). 6 D). 2

Correct Answer: A

Q.41 **In a certain code language, 'chest wife sip' is coded as ' wv ua nv' and 'sip unit ghost' is coded as 'ef wv ie'. How is 'sip' coded in the given language?**

Ans A). wv B). nv C). ua D). ef

Correct Answer: A

Q.42 **Select the pair which follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.**
SUX−TVY
GIL−HJM

Ans A). TVY−UWZ B). TVY−TWY C). TUW−UWZ D). TUW−TVY

Correct Answer: A

Q.43 **What should come in place of '?' in the given series?**

9 14 21 30 41 ?

Ans A). 50 B). 52 C). 54 D). 49

Correct Answer: C

Q.44 **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 A). SPM B). GEA C). OMI D). MKG

Correct Answer: A

Q.45 **Seven people, L, M, N, O, X, Y and Z are sitting in a row, facing north. N sits third to the left of Y. O sits second to the left of N. X sits to the immediate right of Z. More than three people sit between X and L. Who sits exactly between O and N?**

Ans A). Z B). L C). M D). X

Correct Answer: C

Q.46 **Each vowel in the word COMPUTE is changed to the letter immediately following it in the English alphabetical order and each consonant is changed to the letter immediately preceding it in the English alphabetical order. Which of the following letters will be fourth from the left in the new group of letters thus formed?**

Ans A). H B). P C). J D). O

Correct Answer: D

Q.47 **Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?**
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans A). OQN B). FIE C). MOL D). ACZ

Correct Answer: B

Q.48 **Seven boxes, A, B, C, D, G, H and I, are kept one over the other, but not necessarily in the same order.**
D is kept second from the bottom. Only three boxes are kept between D and C. I is kept at one of the positions below D. Only H is kept between C and B. A is kept at one of the positions above C.
How many boxes are kept between G and C?

Ans A). Two B). Four C). Three D). One

Correct Answer: A

Q.49 **A question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and decide the appropriate answer.**

Question:
A, B, C, D and E are sitting around a circular table, facing the centre. Who sits to the immediate right of B?

Statements:
(I) B sits to the immediate right of A. C sits to the immediate left of E.
(II) D sits second to the right of A. C sits to the immediate right of D.

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

Correct Answer: C

Q.50 **What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?**
231 ÷ 3 - 721 x 7 + 24 = ?

Ans A). 774 B). 773 C). 771 D). 772

Correct Answer: D

Section : **General Science**

Q.51 **Which of the following is a major reason for the rich biodiversity found in the Indian Himalayas?**

Ans A). Variation in altitude and climate B). Even distribution of rainfall C). Active vegetation and farming
D). Consistent soil fertility across the nation

Correct Answer: A

Q.52 **Why are electrons not included in the calculation of an atom's mass number?**

Ans A). Electrons outnumber protons and neutrons B). Electrons determine the atom's charge only
C). Electrons have negligible mass compared to protons and neutrons D). Electrons are heavier than protons and neutrons

Correct Answer: C

Q.53 **How can a persistent warmer atmosphere alter precipitation patterns within the water cycle?**

Ans A). It will lead to more snowfall in all regions B). It will result in less rainfall worldwide C). It will always increase gentle rainfall everywhere
D). It can cause more intense and irregular rainfall events

Correct Answer: D

Q.54 **Which meristem is located at the base of certain plants and helps them regenerate after cutting?**

Ans A). Girth Meristem B). Apical Meristem C). Lateral Meristem D). Intercalary Meristem

Correct Answer: D

Q.55 **Which among the following does NOT play a direct role in causing surface ocean currents?**

Ans A). Rotation of the Earth B). Amount of rainfall over the ocean C). Temperature of ocean surface D). Wind blowing across the ocean

Correct Answer: B

Q.56 **The unit cell of the nervous system is called as _____.**

Ans A). Axon B). Dendrite C). Muscle fibre D). Neuron

Correct Answer: D

Q.57 **Which scenario results in zero work done by a constant force?**

Ans A). A force acts perpendicular to the direction of motion B). A force acts at an acute angle to the direction of motion
C). A force acts against the direction of displacement D). A force acts parallel to the direction of motion

Correct Answer: A

Q.58 **An atom of phosphorus has an electronic configuration of 2, 8, 5. What is its valency and how does it attain stability?**

Ans A). Phosphorus has a valency of 5, as it loses five electrons. B). Phosphorus has a valency of 5, equal to the number of valence electrons.
C). Phosphorus has a valency of 3, as it gains three electrons to achieve a stable configuration.
D). Phosphorus has a valency of 3, as it loses three electrons to achieve stability.

Correct Answer: C

Q.59 Which of the following is a reason, scientists classify living organisms?

Ans A). To ensure that all species become similar B). To organize organisms by similarities and differences
C). To make all organisms genetically identical D). To change the natural habitat of organisms

Correct Answer: B

Q.60 In a reflex arc, the receptor first detects the_____.

Ans A). Stimulus B). Effector C). Response D). Hormone

Correct Answer: A

Q.61 A student records the motion of a ball that travels from point Q to point R, then returns to point S, all along the same straight path. If the ball covers 70 meters to reach R from Q and then 30 meters from R to S, which best represents the physical difference between the total path length and displacement for this journey?

Ans A). The displacement is always greater than the path length because it measures the shortest route.
B). The path length depends only on the final position, while displacement depends on the entire journey.
C). The path length and displacement are equal because the motion occurs along a straight path.
D). The path length is the total distance travelled, while displacement is the net straight-line distance from Q to S.

Correct Answer: D

Q.62 Which method can best be used to confirm the presence of a colloidal mixture due to the Tyndall effect?

Ans A). Heating the mixture to evaporate the solvent B). Filtering the mixture using filter paper
C). Allowing the mixture to stand undisturbed for several hours D). Shining a beam of light through the mixture and observing scattered light

Correct Answer: D

Q.63 Which of the following options correctly describes a suspension?

Ans A). Suspensions are stable and do not require stirring. B). Suspensions are always transparent like true solutions.
C). The particles in a suspension settle over time and can be separated by filtration.
D). The particles in a suspension scatter light but do not settle.

Correct Answer: C

Q.64 What is the charge and location of an electron in an atom?

Ans A). Negative, outside nucleus B). Positive, inside nucleus C). Neutral, inside nucleus D). Negative, inside nucleus

Correct Answer: A

Q.65 If the object is placed at the focus of a convex lens, the image will be:

Ans A). at 2F, real and of same size B). at infinity, virtual and reduced C). between F and 2F, real and inverted
D). at infinity, real and highly enlarged

Correct Answer: D

Q.66 To carry nerve impulses over long distances, a neural prosthetic should mimic which part of a neuron?

Ans A). The branching dendrites near the cell body B). The cell body containing the nucleus C). The elongated axon with myelin sheath
D). The synaptic terminals at the end of the neuron

Correct Answer: C

Q.67 A student places an object 30 cm in front of a convex lens of focal length 15 cm. Based on the lens formula, where will the image be formed?

Ans A). 15 cm on the other side of the lens B). 30 cm on the other side of the lens C). 45 cm on the other side of the lens
D). 60 cm on the other side of the lens

Correct Answer: B

Q.68 A scientist is studying disfunctioning of smooth endoplasmic reticulum in animal cells. Which cellular process is most likely to be directly affected by this change?

Ans A). Protein synthesis and modification B). Energy production and ATP synthesis C). Cell division and chromosome separation
D). Synthesis of lipids and detoxification of drugs

Correct Answer: D

Q.69 Why are saturated hydrocarbons generally unreactive under normal conditions?

Ans A). They contain strong sigma (σ) bonds that require high energy to break.
B). They are highly polar and dissolve in water, preventing reactions. C). They contain weak pi (π) bonds that break easily.
D). They react spontaneously with oxygen at room temperature.

Correct Answer: A

Q.70 A child's near point is 50 cm, but normal near point for a human eye is 25 cm. What is the required power of the lens to correct the child's near point?

Ans A). -1.0 D B). +1.0 D C). -2.0 D D). +2.0 D

Correct Answer: D

Q.71 A circular coil of radius r carries current I. If the number of turns of the coil is doubled (keeping radius and current same), the magnetic field at the centre will _____ .

Ans A). Remain unchanged B). Double C). Reduce to half D). Become four times

Correct Answer: B

Q.72 If you shout to your friend who is at the same distance from you across a playground and is also touching the other end of a steel rail, through which path will your friend hear your voice first, and why?

Ans A). Across the playground because sound travels more easily through air than through solids.

B). Through the steel rail because solids make every sound louder than air.

C). Across the playground because sound does not travel efficiently through steel.

D). Through the steel rail because sound travels much faster in solids than in air.

Correct Answer: D

Q.73 A ray of light enters a glass prism from air. Which change occurs to the speed of the light as it enters the prism?

Ans A). Light moves infinitely fast in glass B). The speed of light remains unchanged C). The speed of light decreases inside the prism

D). The speed of light increases inside the prism

Correct Answer: C

Q.74 A student observes a decomposition reaction where a pale yellow powder changes into a red-brown solid and a colourless gas upon heating. Which compound was used?

Ans A). Potassium permanganate B). Lead nitrate C). Silver bromide D). Zinc carbonate

Correct Answer: B

Q.75 Which of the following is the reason for having a scientific system of classifying living organisms?

Ans A). To measure the lifespan of organisms B). To enhance reproduction in organisms

C). To avoid confusion in naming and grouping organisms D). To improve crop production

Correct Answer: C

Q.76 Which of the following plant groups includes a green mat-like plant growing on a damp wall that lacks true roots and vascular tissues?

Ans A). Bryophyta B). Thallophyta C). Lichen D). Pteridophyta

Correct Answer: A

Q.77 Why does the number of protons in an atom never change during chemical reactions?

Ans A). Protons move to other atoms easily B). Protons stay in the electron cloud C). Protons combine with electrons to form neutrons

D). Protons are tightly bound in the nucleus

Correct Answer: D

Q.78 If a constant force acts in the direction of motion on an object, what does the work-energy theorem say about its kinetic energy?

Ans A). Only the potential energy changes. B). The object's kinetic energy stays the same. C). The object's kinetic energy increases.

D). The object's kinetic energy decreases.

Correct Answer: C

Q.79 A prism produces a spectrum when white light passes through it. If the refractive index for red light is 1.50 and for violet light is 1.54, what does this suggest about the behavior of the different colors in the prism?

Ans A). Both colors bend equally B). Violet light bends more than red light C). Red light bends more than violet light

D). Both colors travel without bendung

Correct Answer: B

Q.80 In reactivity series metals are arranged in decreasing order of their activity. The metal which lies at the top of series is:

Ans A). Magnesium B). Potassium C). Aluminium D). Sodium

Correct Answer: B

Q.81 Which of the following real-life scenarios best demonstrates how human activity can reduce biodiversity in an ecosystem?

Ans A). Seasonal migration of birds B). Deforestation causing species loss C). Animals moving to a new region

D). Natural succession in a grassland

Correct Answer: B

Q.82 Which statement best describes why ethanol is considered an important fuel?

Ans A). It is the only liquid fuel used in vehicles worldwide. B). It is primarily used as a food preservative.

C). It is mainly used for making plastics in the industry. D). It burns cleanly and produces less smoke compared to many traditional fuels.

Correct Answer: D

Q.83 Which of the following is NOT a branched alkane?

Ans A). Isopentane B). Neopentane C). N-pentane D). Isobutane

Correct Answer: C

Q.84 A man carries a heavy bag horizontally at a uniform speed across a level floor. What is the work done by the force exerted by the man on the bag in the direction of motion?

Ans A). The work done is negative because the bag is heavy.

B). The work done is zero because the force is perpendicular to the displacement.

C). The work done is positive because the man carries the bag forward. D). The work done is negative since the force resists motion.

Correct Answer: B

Q.85 A cyclist covers the first 6 kilometers of her journey in 20 minutes and the next 9 kilometers in 30 minutes. What is her average speed for the entire trip in kilometers per hour (km/h)?

Ans A). 20 km/h B). 18 km/h C). 15 km/h D). 12 km/h

Correct Answer: B

Q.86 Which method is commonly used to separate a pure solid from its solution in a homogeneous mixture?

Ans A). Filtration B). Distillation C). Decantation D). Crystallization

Correct Answer: D

Q.87 Which of the following indicators turns red in acidic solution and blue in basic solution?

Ans A). Phenolphthalein B). Methyl orange C). Turmeric D). Litmus

Correct Answer: D

Q.88 Why is it essential for an organism's body to carry out life processes during periods of rest?

Ans A). To speed up reproduction B). To ensure vital body functions continue for survival C). To prepare the body for sudden movement

D). To reset the brain's functions

Correct Answer: B

Q.89 A concave lens has a focal length of 30 cm. At what distance should the object from the lens be placed so that it forms an image at 20 cm from the lens?

Ans A). 80 cm behind the lens B). 20 cm behind the lens C). 40 cm in front of the lens D). 60 cm in front of the lens

Correct Answer: D

Q.90 When a straight conductor of fixed length is placed in a uniform magnetic field and the current through it is doubled, the force on the conductor also doubles. Which of the following underlying principles explains this proportional relationship?

Ans A). The force is directly proportional to the current B). The force is determined by the direction of the field

C). The force depends only on the conductor's length D). The force is inversely proportional to the current

Correct Answer: A

Section : **General Awareness**

Q.91 Which of the following conducted the successful flight-test of the Pinaka Long Range Guided Rocket on July 8, 2026?

Ans A). Defence Research & Development Organisation B). Bharat Dynamics Limited C). Indian Army D). Hindustan Aeronautics Limited

Correct Answer: A

Q.92 The 13th edition of the India–Kyrgyzstan Joint Special Forces Exercise KHANJAR, held in February 2026, commenced in which state?

Ans A). Sikkim B). Assam C). Arunachal Pradesh D). Uttarakhand

Correct Answer: B

Q.93 In which of these states was "CLAP for Children" launched in September 2025 to make cities safer and more supportive for children?

Ans A). Andhra Pradesh B). Telangana C). Maharashtra D). Karnataka

Correct Answer: B

Q.94 Which athlete won the men's 400m hurdles title at the Indian Athletics Series 2026 in Thiruvananthapuram, Kerala?

Ans A). Vignesh B B). Ayyasamy Dharun C). Amit Kumar D). Santhosh Kumar Tamilarasan

Correct Answer: D

Q.95 In July 2026, the Defence Acquisition Council (DAC) approved the procurement of the AKASH TARANG system for which armed force?

Ans A). Indian Air Force B). Indian Navy C). Indian Army D). Indian Coast Guard

Correct Answer: C

Q.96 According to the Union Budget 2026–27, the Bio-Pharma SHAKTI scheme has been proposed with an outlay of _____.

Ans A). ₹12,000 crore over five years B). ₹15,000 crore over five years C). ₹8,000 crore over five years D). ₹10,000 crore over five years

Correct Answer: D

Q.97 The Memorandum of Understanding (MoU) signed between the Digital India BHASHINI Division (DIBD) and the Reserve Bank of India (RBI) in February 2026 primarily aims at which of the following purposes?

Ans A). Integrate language AI models to enhance multilingual banking access and promote financial inclusion

B). Develop a comprehensive Central Bank Digital Currency (CBDC) platform for nationwide retail and wholesale digital transactions

C). Develop a comprehensive national financial fraud detection and prevention framework to enhance banking security

D). Create a unified digital payment gateway to enable seamless interoperability and real-time transactions across banks and financial institutions

Correct Answer: A

Q.98 The Union Budget 2026–27 proposed upgrading which of the following institutions into the National Institute of Hospitality?

Ans A). National Skill Development Corporation B). Indian Institute of Tourism and Travel Management

C). Indian Institute of Food Processing Technology D). National Council for Hotel Management and Catering Technology

Correct Answer: D

Q.99 Which organisation organised the Regional AIM SUMVAAD–North East Chapter 2026 in July 2026?

Ans A). National Skill Development Corporation (NSDC) B). Indian Space Research Organisation (ISRO)

C). Atal Innovation Mission (AIM), NITI Aayog D). Defence Research and Development Organisation (DRDO)

Correct Answer: C

Q.100 Which initiative of the Union Ministry of Panchayati Raj received the Gold Award at the National Awards for e-Governance (NAeG) 2026 under the category 'Digital Transformation by Use of Data Analytics in Digital Platforms by Central Ministries/States/UTs'?

Ans A). AuditOnline Platform B). Panchayat Advancement Index C). SVAMITVA Scheme D). e-GramSwaraj Portal

Correct Answer: B

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