रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARD
सीईएन ०२ /२०२५ - तकनीशियन ग्रेड I सिगनल और तकनीशियन ग्रेड III
CEN 02/2025 – Technician Grade I Signal and Technician Grade III

सत्यमेव जयते

Test Date	10/03/2026
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 What sum of money (in ₹) will yield ₹700 as simple interest in 2 years at 8% per annum?

Ans
- ✔ A. 4375
- ✘ B. 4575
- ✘ C. 3875
- ✘ D. 4775

Q.2 In a class, there are 36 boys and 24 girls. By what percentage should the number of girls be increased so that it becomes equal to the number of boys?

Ans
- ✘ A. 30%
- ✘ B. 40%
- ✘ C. 60%
- ✔ D. 50%

Q.3 When one-third of a number is increased by 10, the result is 65. Find the sum of the digits of the original number.

Ans
- ✘ A. 9
- ✘ B. 14
- ✘ C. 11
- ✔ D. 12

Q.4 In a family, the sum of the ages of a father and son is 50 years. 10 years from now, the difference in their ages will be 20 years. Find the ratio of the son's age to the father's age.

Ans
- ✔ A. 3:7
- ✘ B. 4:7
- ✘ C. 5:8
- ✘ D. 2:7

Q.5 Which of the following numbers is divisible by both 17 and 13?

Ans
- ✘ A. 22372
- ✘ B. 21401
- ✔ C. 21658
- ✘ D. 20049

Q.6 A cylindrical rod has an outer curved surface area of 7900 cm^2. If the length of the rod is 3 cm, then the outer radius (in cm) of the rod, correct to two places of decimal, is:
$\left(\text{Take } \pi = \frac{22}{7}\right)$

Ans
- ✗ A. 419.12
- ✗ B. 417.52
- ✓ C. 418.94
- ✗ D. 420.85

Q.7 A can do a piece of work in 63 hours; B and C together can do it in 48 hours, while A and C together can do it in 36 hours. How long (in hours) will B alone take to do it?

Ans
- ✓ A. 112
- ✗ B. 114
- ✗ C. 111
- ✗ D. 113

Q.8 If 40 pages are printed in 5 minutes by a printer, how many pages will be printed in 3 hours?

Ans
- ✗ A. 1810
- ✓ B. 1440
- ✗ C. 1620
- ✗ D. 1560

Q.9 If $2\tan A = 3$, then the value of $(\sec A + \tan A - 1)(\sec A - \tan A + 1)$ is:

Ans
- ✓ A. 3
- ✗ B. $\frac{2}{3}$
- ✗ C. 2
- ✗ D. $\frac{1}{3}$

Q.10 If $a + b = 12$ and $ab=8$ then the numerical value of $\left(\frac{a}{b} + \frac{b}{a}\right)$ will be:

Ans
- ✗ A. 20
- ✗ B. 12
- ✓ C. 16
- ✗ D. 14

Q.11 G is the centroid of the equilateral triangle ABC. If AB = 36 cm, then length (in cm) of AG is:

Ans
- ✗ A. $8\sqrt{6}$
- ✗ B. $10\sqrt{3}$
- ✗ C. $6\sqrt{6}$
- ✓ D. $12\sqrt{3}$

Q.12 Find the value of $38 - [27 - (90 \div 5 - (12 - 18 \div 6) \div 3)]$.

Ans
- ✓ A. 26
- ✗ B. 22
- ✗ C. 25
- ✗ D. 24

Q.13 A dealer buys two articles X and Y for ₹3,400 each. He marks each of them at the same price. He sells X by giving two successive discounts of 10% and 50% and still earns ₹323 as profit. If he sells Y at a single discount of 28%, then what is the profit percentage on Y?

Ans
- ✗ A. 75%
- ✓ B. 75.2%
- ✗ C. 74%
- ✗ D. 74.2%

Q.14 Two persons A and B start from the same point. A walks at 5 km/h. After 't' hours B starts and catches A after 2 hours of his own walking. If B's speed is 8 km/h, what is the value of 't'?

Ans
- ✗ A. 1.5
- ✓ B. 1.2
- ✗ C. 1.4
- ✗ D. 1.3

Q.15 Given that $74^{0.45} = x$, $74^{0.12} = y$ and $x^z = y^2$, then the value of z is close to:

Ans
- ✗ A. 2.52
- ✓ B. 0.53
- ✗ C. 3.99
- ✗ D. 1.45

Q.16 A can complete a piece of work in 10 days and B can complete the same work in 15 days, when each works individually. Both A and B work together for 3 days. After that, B leaves the work, and A alone completes the remaining work. How many days will A take to finish the remaining work alone?

Ans
- ✗ A. 8 days
- ✓ B. 5 days
- ✗ C. 6 days
- ✗ D. 10 days

Q.17 A, B, and C invested money in the ratio of 2 : 3 : 4 for periods in the ratio of 6 : 4 : 3, respectively. If the total profit is ₹1,32,000, what is the share of C?

Ans
- ✗ A. ₹45,000
- ✗ B. ₹43,000
- ✗ C. ₹42,000
- ✓ D. ₹44,000

Q.18 The average age of six girls increases by four months, if a 12 - year old girl is replaced by a new girl. The age of the new girl is:

Ans
- ✗ A. 16 years
- ✗ B. 15 years
- ✓ C. 14 years
- ✗ D. 13 years

Q.19 During a sale, 44% of the goods are sold at a profit of 47%. Of the remaining goods, 25% are sold at a profit of 22%, and the rest are sold at a loss of 38%. If the overall profit is x%, what is the value of x?

Ans
- ✗ A. 18.5
- ✗ B. 18
- ✓ C. 7.8
- ✗ D. 12.4

Q.20 A trapezium has parallel sides of lengths 17 cm and 29 cm, and the distance between them is 15 cm. What is the area of the trapezium?

Ans
✗ A. 335 cm2
✗ B. 315 cm2
✗ C. 325 cm2
✓ D. 345 cm2

Q.21 The price of a laptop increased by 20% in the first month, then decreased by 10% in the second month, and increased again by 15% in the third month. If the original price of the laptop was ₹1,20,000, what is the final price after these three changes?

Ans
✓ A. ₹1,49,040
✗ B. ₹1,42,800
✗ C. ₹1,38,000
✗ D. ₹1,41,000

Q.22 Simplify: (3.6 × 2.5) − (4.8 ÷ 1.6) + (3.2 × 0.5)

Ans
✗ A. 7.8
✗ B. 7.4
✓ C. 7.6
✗ D. 7.2

Q.23 The salary of Mina is ₹80,000. Out of which she deposits x% amount at 15% simple interest. If the accumulated amount for the money deposited after 3 years is ₹17,400, then find the value of x.

Ans
✗ A. 25
✗ B. 12
✗ C. 20
✓ D. 15

Q.24 What is the mode of the following data?
50, 43, 40, 51, 44, 46, 40, 43, 41, 45, 46, 40, 45, 47, 45, 49, 47, 40

Ans
✓ A. 40
✗ B. 43
✗ C. 46
✗ D. 45

Q.25 Find the third proportional to $a^3 - b^3$ and $a^2 + b^2 + ab$, when a = 16 and b = 12.

Ans
✗ A. 150
✗ B. 160
✓ C. 148
✗ D. 158

Section : **General Intelligence and Reasoning**

Q.26 **Ap, Bx, Cu, Dk, Ey, Fn and Gm are sitting around a circular table facing the centre. Dk sits to the immediate right of Bx. Cu is the immediate neighbour of Ey and Dk. Fn sits second to the right of Ap. What is the position of Gm with respect to Ey?**

Ans
✗ A. Third to the right
✗ B. Immediate left
✗ C. Second to the left
✓ D. Second to the right

Q.27 What should come in place of ? in the given series based on the English alphabetical order?

GXK OFS WNA EVI ?

Ans
✗ A. MRF
✗ B. MDO
✓ C. MDQ
✗ D. MDR

Q.28 AD 24 is related to BE 12 in a certain way. In the same way, KN 68 is related to LO 34. To which of the following is HK 42 related, following the same logic?

Ans
✓ A. IL 21
✗ B. IM 21
✗ C. JM 33
✗ D. JL 31

Q.29 Shreya is the wife of Govind. Govind is the brother of Harshit. Harshit is the father of Mahak. Mahak is the sister of Aditya. How is Shreya related to Aditya?

Ans
✗ A. Mother's brother's wife
✓ B. Father's brother's wife
✗ C. Mother's brother's daughter
✗ D. Father's brother's daughter

Q.30 Refer to the following number series and answer the question that follows. (All numbers are single-digit numbers only. Counting to be done from left to right only.)

(Left) 3 5 4 3 6 7 8 9 9 6 6 3 3 7 8 8 1 7 5 3 (Right)

How many such odd numbers are there, each of which is immediately preceded by an even number and also immediately followed by an odd number?

Ans
✓ A. THREE
✗ B. TWO
✗ C. ONE
✗ D. NONE

Q.31 In a certain code language, 'never fear life' is coded as 'ro sb kp' and 'now or never' is coded as 'sb tg ct'. How is 'never' coded in the given language? (All the codes are two-letter codes only.)

Ans
✗ A. kp
✗ B. tg
✗ C. ct
✓ D. sb

Q.32 In a certain code language,

A + B means 'A is the sister 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 T related to K if 'T ÷ G – D + M x K'?

Ans
✗ A. Brother
✗ B. Father
✓ C. Wife's father
✗ D. Wife's brother

Q.33 Keval starts from point Y and drives 77 km towards North. He then takes a right turn, drives 34 km, turns right and drives 36 km. He then takes a right turn and drives 65 km. He then turns left, drives 41 km to stop 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-degree turns only unless specified.)

Ans
- ✔ A. 31 km towards east
- ✘ B. 29 km towards west
- ✘ C. 30 km towards east
- ✘ D. 33 km towards north

Q.34 In a row of 47 people facing north, Kamu sits 12^{th} from the left end. If only 12 people sit to the right of Tara, then how many people sit between Kamu and Tara?

Ans
- ✘ A. 19
- ✔ B. 22
- ✘ C. 21
- ✘ D. 20

Q.35 GDFH is related to JGIK in a certain way based on the English alphabetical order. In the same way, OLNP is related to ROQS. To which of the given options is TQSU related, following the same logic?

Ans
- ✔ A. WTVX
- ✘ B. VTWY
- ✘ C. WTUX
- ✘ D. WUTX

Q.36 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 one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans
- ✘ A. JO – HM
- ✘ B. CH – AF
- ✘ C. FK – DI
- ✔ D. PU – MR

Q.37 The position(s) of how many letters will remain unchanged if each letter in the word EDUCATORS is arranged in English alphabetical order?

Ans
- ✘ A. One
- ✘ B. Two
- ✘ C. Four
- ✔ D. None

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

29 35 46 52 63 ?

Ans
- ✘ A. 71
- ✘ B. 70
- ✘ C. 67
- ✔ D. 69

Q.39 All the individual letters in the word PICKLED are arranged in alphabetical order. How many letters are there in the English alphabetical order between the letter which is second from the left and the one which is fourth from the right in the new letter cluster thus formed?

Ans
- ✗ A. Three
- ✓ B. Four
- ✗ C. Two
- ✗ D. One

Q.40 What should come in place of '?' in the given series?

7 21 63 189 567 ?

Ans
- ✗ A. 1700
- ✗ B. 1702
- ✗ C. 1703
- ✓ D. 1701

Q.41 Select the pair which follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.

GAU : JDX
REF : UHI

Ans
- ✗ A. ZTD : CWH
- ✗ B. QEW : SGY
- ✗ C. SYI : UZL
- ✓ D. CNH : FQK

Q.42 What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

8 ÷ 2 + 14 x 7 - 7 = ?

Ans
- ✗ A. 12
- ✗ B. 18
- ✗ C. 14
- ✓ D. 21

Q.43 If 'P' stands for '×', 'Q' stands for '÷', 'R' stands for '−' and 'S' stands for '+', then what will come in place of the question mark (?) in the following equation?

53 R 61 S 96 P 3 Q 2 S 28 P 6 R 99 Q 3 S 32 = ?

Ans
- ✗ A. 348
- ✓ B. 303
- ✗ C. 365
- ✗ D. 328

Q.44 Refer to the following letter series and answer the question that follows. Counting to be done from left to right.

(Left) S I C X Z O A K L N T E W A Q D F H G U K O (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. Three
- ✗ C. One
- ✓ D. Two

Q.45 Mr. Ok starts from Point O and drives 7 km towards the west. He then takes a right turn, drives 7 km, turns right and drives 2 km. He then takes a left turn and drives 6 km. He then takes a right turn and drives 19 km. He then takes a right turn and drives 16 km. He then takes a final right turn, drives 14 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point O again? (All turns are 90 degrees turns only unless specified.)

Ans
- ✗ A. 4 km towards South
- ✗ B. 4 km towards East
- ✓ C. 3 km towards North
- ✗ D. 3 km towards West

Q.46 In a certain code language, 'mind your business' is coded as 'gv tr fy' and 'your turn now' is coded as 'cb gv kq'. How is 'your' coded in the given language? (All the codes are two-letter codes only.)

Ans
- ✗ A. fy
- ✓ B. gv
- ✗ C. tr
- ✗ D. kq

Q.47 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. DF–BD
- ✗ B. OQ–MO
- ✗ C. UW–SU
- ✓ D. IK–FK

Q.48 Seven boxes A, B, C, D, E, F and G are kept one over the other but not necessarily in the same order. C is not kept below G. Only five boxes are kept below E. Only one box is kept between C and E. B is kept above A but below G. F is not the topmost box. Which box is kept immediately below F?

Ans
- ✗ A. B
- ✗ B. D
- ✓ C. C
- ✗ D. E

Q.49 What should come in place of ? in the given series based on the English alphabetical order?

CHM FKK INI LQG ?

Ans
- ✓ A. OTE
- ✗ B. HGY
- ✗ C. OLI
- ✗ D. NHG

Q.50 Seven people, A, K, Q, D, E, F and N, are sitting in a row, facing north. D sits sixth from the right end of the row. Only three people sit between F and D. E is the immediate neighbour of Q and N. K sits second to the left of N. Who sits third to the left of A?

Ans
- ✗ A. D
- ✗ B. Q
- ✓ C. E
- ✗ D. K

Section : **General Science**

Q.51 The difference in electrical conductivity between diamond and graphite arises because:

Ans
- ✔ A. Graphite has delocalized electrons; diamond does not
- ✘ B. Diamond has metallic bonding, graphite does not
- ✘ C. Diamond has tightly packed ions
- ✘ D. Both have free electrons, but in different numbers

Q.52 Identify the product formed when copper metal is exposed to dilute hydrochloric acid.

Ans
- ✘ A. Salt and chlorine gas
- ✘ B. Salt and hydrogen gas
- ✔ C. No reaction
- ✘ D. Only Salt

Q.53 A convex mirror of focal length 'X' cm forms an image at a distance of 8 cm when the object is placed at a distance of 40 cm in front of the mirror. What is the value of X?

Ans
- ✘ A. - 10 cm
- ✔ B. + 10 cm
- ✘ C. - 20/3 cm
- ✘ D. + 20/3 cm

Q.54 If the pH of a solution is 3, what is the concentration of hydrogen ions in the solution?

Ans
- ✘ A. $3\times10-2M$
- ✔ B. $1\times10-3$ M
- ✘ C. $3\times10-3$ M
- ✘ D. $1\times10-2$ M

Q.55 Which of the following is/are NOT true about action reaction forces?

(i) Action reaction forces are unequal in magnitude and always act in the same direction.
(ii) Action reaction forces act on different bodies.
(iii) Action reaction forces act on the same body.

Ans
- ✔ A. Both (i) and (iii)
- ✘ B. Only (ii)
- ✘ C. Only (iii)
- ✘ D. Both (i) and (ii)

Q.56 Meristematic tissue contributes to plant growth because its cells:

Ans
- ✘ A. Have thick secondary walls
- ✔ B. Continuously divide throughout life
- ✘ C. Contain large central vacuoles
- ✘ D. Are permanently differentiated

Q.57 Choose a term to complete the analogy.

Apical Meristem : Length :: Lateral Meristem : _____

Ans
- ✘ A. Tips of stems
- ✘ B. Nodes
- ✔ C. Girth
- ✘ D. Cell differentiation only

Q.58 Two bodies A and B are travelling in uniform motion, the slope of the distance- time graph of body A is greater than the slope of the distance - time graph of body B. Which of the following statements is correct?

Ans
- ✗ A. The speed of body A is equal to the speed of body B.
- ✓ B. The speed of body A is greater than speed of body B.
- ✗ C. The speed of body A is less than the speed of body B.
- ✗ D. The acceleration of body A is greater than the acceleration of body B.

Q.59 Which cropping pattern maintains soil fertility through planned crop succession?

Ans
- ✓ A. Crop rotation
- ✗ B. Monocropping
- ✗ C. Mixed cropping
- ✗ D. Relay cropping

Q.60 A device often used in electric circuits to change the resistance without changing the voltage source is the _____.

Ans
- ✗ A. Fuse
- ✗ B. Ammeter
- ✗ C. Voltmeter
- ✓ D. Rheostat

Q.61 The distance between the pole and the position of the object placed in front of a concave mirror is 120 cm. A real and inverted image is formed by this mirror on a screen at 40 cm from the pole of this mirror. What will be the focal length of this mirror?

Ans
- ✗ A. - 60 cm
- ✗ B. + 30 cm
- ✓ C. - 30 cm
- ✗ D. + 60 cm

Q.62 Complete the analogy.

Kharif : Rainy season :: Rabi :_____

Ans
- ✗ A. Summer season
- ✓ B. Winter season
- ✗ C. Autumn season
- ✗ D. Spring season

Q.63 The location of an object is always described by specifying a point of reference known as the _____.

Ans
- ✓ A. Origin
- ✗ B. Displacement
- ✗ C. Final position
- ✗ D. Axis

Q.64 The rough endoplasmic reticulum is associated with:

Ans
- ✗ A. Lipid synthesis
- ✗ B. DNA replication
- ✓ C. Protein synthesis
- ✗ D. Enzyme breakdown

Q.65 Which statement most accurately describes why food webs provide greater stability to an ecosystem compared to single food chains?

Ans
- ✗ A. They involve only producers.
- ✗ B. They have fewer organisms.
- ✗ C. They recycle only energy.
- ✓ D. They allow multiple feeding relationships, ensuring balance.

Q.66 Which of the following pairs are correctly matched as structural isomers?
A) Pentane − 2-methylbutane
B) Butane − 2-methylpropane
C) Benzene − cyclohexene

Ans
- ✓ A. A and B only
- ✗ B. B and C only
- ✗ C. A and C only
- ✗ D. A, B and C

Q.67 If the velocity-time graph is curved (non-linear), the object is moving with _____.

Ans
- ✗ A. Constant speed
- ✗ B. Uniform acceleration
- ✗ C. Constant rate of change of momentum
- ✓ D. Non-uniform acceleration

Q.68 Which of the following is **NOT** attributed to Areolar connective tissues in the human body?

Ans
- ✗ A. Filling the space inside organs
- ✓ B. Storing fat globules for insulation
- ✗ C. Supporting internal organs
- ✗ D. Helping in the repair of tissues

Q.69 Which property do isobars share?

Ans
- ✗ A. Same chemical properties
- ✓ B. Same mass number
- ✗ C. Same number of protons
- ✗ D. Same atomic number

Q.70 A car has a mass of 120 kg. How much work must be done to raise its speed from 72 km/h to 108 km/h?

Ans
- ✓ A. 3.0×10^4 J
- ✗ B. 4.0×10^4 J
- ✗ C. 1.0×10^4 J
- ✗ D. 2.0×10^4 J

Q.71 If two isotopes of an element 'X' are X-35 and X-37, the average atomic mass of chlorine (if X-35 = 25% and X-37 = 75%) will be:

Ans
- ✗ A. 35.5 u
- ✗ B. 36.0 u
- ✗ C. 34.5 u
- ✓ D. 36.5 u

Q.72 In the electrolytic refining of copper, which of the following acts as the **anode**?

Ans
- ✗ A. Pure copper plate
- ✗ B. Copper sulphate solution
- ✗ C. Carbon electrode
- ✓ D. Impure copper block

Q.73 In a chemical reaction, 5.6 g of sodium reacts with 8.0 g of chlorine to form sodium chloride. What is the mass of sodium chloride formed according to the Law of Conservation of Mass?

Ans
- ✗ A. 8.0 g
- ✗ B. 12.4 g
- ✓ C. 13.6 g
- ✗ D. 14.4 g

Q.74 If an element forms an ion with a charge of −2, what does this indicate about its valency?

Ans
- ✗ A. The element has lost 2 electrons.
- ✓ B. The element has gained 2 electrons.
- ✗ C. The element has 2 electrons in the nucleus.
- ✗ D. The element has gained 2 protons.

Q.75 What happens to a ray of light that either passes through the principal focus (for a convex lens) or appears to meet at the principal focus (for a concave lens) before striking the lens?

Ans
- ✗ A. It always converges at the optical centre.
- ✗ B. It forms an image at the focal plane of the lens.
- ✓ C. It emerges parallel to the principal axis after refraction.
- ✗ D. It bends randomly after refraction.

Q.76 _____ is a process in which persistent, non-degradable chemicals become progressively more concentrated at each higher trophic level in a food chain.

Ans
- ✓ A. Biological magnification
- ✗ B. Ecological succession
- ✗ C. Bioremediation
- ✗ D. Biodegradation

Q.77 Choose a term to complete the analogy.

Prokaryotic cell : Small and simple :: Eukaryotic cell : _____

Ans
- ✗ A. Same size and complexity
- ✗ B. Irregular and simple
- ✗ C. Smaller and simple
- ✓ D. Larger and complex

Q.78 Which of the following is correct regarding the male and female gamete?

Ans
- ✓ A. Male gamete is small and motile; and female gamete is larger and non-motile.
- ✗ B. Male gamete is large and motile; and female gamete is smaller and non-motile.
- ✗ C. Male gamete is large and non-motile; and female gamete is smaller and motile.
- ✗ D. Male gamete is small and non-motile; and female gamete is larger and motile.

Q.79 Which of the following relations is **incorrect** for electric power (P)?

Ans
- ✗ A. P=I2R
- ✓ B. P=R/V2
- ✗ C. P=V2/R
- ✗ D. P=VI

Q.80 A convex mirror produces a magnification of 1/3 when an object is placed at a distance of 30 cm from it. How much will be the image distance?

Ans
- ✗ A. - 90 cm
- ✓ B. + 10 cm
- ✗ C. + 90 cm
- ✗ D. - 10 cm

Q.81 Which of the following is the method used for refining metals such as copper, zinc and silver?

Ans
- ✗ A. Distillation
- ✗ B. Extraction
- ✓ C. Electrolytic refining
- ✗ D. Smelting

Q.82 According to Bohr's model, where are electrons found in an atom?

Ans
- ✓ A. Moving in fixed circular orbits around the nucleus
- ✗ B. Fixed positions inside the nucleus
- ✗ C. Randomly scattered inside the atom
- ✗ D. Resting outside the atom in free space

Q.83 The solubility of **gases** in liquids generally:

Ans
- ✗ A. Is unaffected by temperature
- ✗ B. Increases with increase in temperature
- ✓ C. Decreases with increase in temperature
- ✗ D. First increases then decreases with increase in temperature

Q.84 A distance–time graph for uniform motion must pass through _____.

Ans
- ✗ A. (0, 1)
- ✗ B. (1, 1) only
- ✗ C. Any point
- ✓ D. The origin

Q.85 What is formed when the male germ-cell from the pollen grain fuses with the female gamete in flowering plants?

Ans
- ✗ A. Pollen grain
- ✓ B. Zygote
- ✗ C. Stigma
- ✗ D. Ovule

Q.86 The centre of curvature (C) of a concave mirror is located _____.

Ans
- ✗ A. Behind the mirror
- ✗ B. At the pole (P)
- ✓ C. In front of the mirror
- ✗ D. At infinity

Q.87 What specialisation is commonly found in the epidermal cells of plant roots to aid in their primary function?

Ans
- ✗ A. Irregularly thickened corners
- ✗ B. Large air cavities (aerenchyma)
- ✗ C. A thick, waxy coating of cutin
- ✓ D. Long, hair-like extensions

Q.88 Even though action and reaction forces are equal in size, they may not cause equal accelerations. Why?

Ans
- ✗ A. Because the forces act on the same object
- ✗ B. Because reaction forces are always weaker in effect
- ✓ C. Because each force acts on a different object, and the objects may have different masses
- ✗ D. Because only the larger force causes acceleration

Q.89 Addition reactions are characteristic of which type of hydrocarbons?

Ans
- ✓ A. Both alkynes and alkenes
- ✗ B. Only alkynes
- ✗ C. Only alkenes
- ✗ D. Only alkanes

Q.90 Which of the following correctly explains why veins have valves but arteries do not?

Ans
- ✓ A. Veins carry blood at low pressure and need valves to prevent backflow
- ✗ B. Veins carry blood under high pressure, so valves prevent it from bursting
- ✗ C. Arteries carry oxygenated blood and do not need valves
- ✗ D. Arteries are located deep inside the body and are supported by muscles

Section : General Awareness

Q.91 Provincial autonomy in provinces in place of dyarchy was introduced by which of the following British Indian government legislations?

Ans
- ✗ A. Indian Councils Act of 1909
- ✓ B. Government of India Act of 1935
- ✗ C. Indian Councils Act of 1892
- ✗ D. Government of India Act of 1919

Q.92 According to the Ministry of Defence, what was India's highest-ever defence production in 2024–25?

Ans
- ✓ A. ₹1.54 Lakh Crore
- ✗ B. ₹2.54 Lakh Crore
- ✗ C. ₹2.94 Lakh Crore
- ✗ D. ₹3.14 Lakh Crore

Q.93 Which Indian classical dance form originated in the southern state of Tamil Nadu and is traditionally performed in temples as a devotional offering?

Ans
- ✓ A. Bharatanatyam
- ✗ B. Odissi
- ✗ C. Kathak
- ✗ D. Mohiniyattam

Q.94 What is the focus of the 6G research project at IIIT-Naya Raipur funded under DST's TTDF scheme?

Ans
- ✗ A. Expanding smartphone production facilities
- ✗ B. Creating an AI-driven telecom cloud platform
- ✗ C. Building a 50-qubit quantum computer
- ✓ D. Developing a prototype for 6G cell-free communication

Q.95 The Henley Passport Index 2025 ranks India at which rank globally?

Ans
- ✗ A. 86
- ✓ B. 85
- ✗ C. 84
- ✗ D. 83

Q.96 India shares a *maritime boundary* (sea boundary) with which one of the following countries across the Arabian Sea or the Indian Ocean?

Ans
- ✓ A. Maldives
- ✗ B. Mongolia
- ✗ C. Russia
- ✗ D. Afghanistan

Q.97 PM Modi unveils how many Global Initiatives at the G20 Johannesburg Summit 2025?

Ans
- ✗ A. Five
- ✗ B. Seven
- ✓ C. Six
- ✗ D. Four

Q.98 In which year did India completely eliminate Quantitative Restrictions (QRs) on imports as part of trade liberalization?

Ans
- ✗ A. 1996
- ✗ B. 2005
- ✗ C. 1998
- ✓ D. 2001

Q.99 Which among the following battles in 1757 marked the beginning of British political control in India?

Ans
- ✗ A. Battle of Buxar
- ✗ B. Battle of Colachel
- ✗ C. Battle of Seringapatam
- ✓ D. Battle of Plassey

Q.100 Who among the following appoints the members of the State Public Service Commission (SPSC) under Article 316 of the Constitution of India?

Ans
- ✗ A. President of India
- ✗ B. Chief Justice of the High Court
- ✗ C. Prime Minister of India
- ✓ D. Governor of the State

"