



सत्यमेव जयते

रेल भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सी ई एन आर आर बी - ०२/२०२४ - CEN RRB - 02/2024



Test Date	29/12/2024
Test Time	4:30 PM - 6:00 PM
Subject	RRB Technicians 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 : RRB Technicians Grade III

Q.1 Convert the decimal number $0.\overline{33}$ in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$.

Ans

☒ 1. $\frac{1}{99}$

☒ 2. $\frac{1}{3}$

☒ 3. $\frac{1}{33}$

☒ 4. $\frac{1}{9}$

Q.2 An object is placed in front of a concave mirror of focal length f, and it is found that an image of the same size as that of the object is formed. The object distance u is:

Ans

☒ 1. less than f

☒ 2. equal to 2f

☒ 3. greater than 2f

☒ 4. equal to f

Q.3 Identify the INCORRECT statement related to neurons.

Ans

☒ 1. Neurons typically have one long section called the axon.

☒ 2. Each neuron has multiple short, branching sections called dendrites.

☒ 3. Nervous tissue consists of cells known as neurons.

☒ 4. The cell body of a neuron has many nuclei.

Q.4 The energy transfer within the food web has a _____ pattern.

Ans

☒ 1. Unidirectional

☒ 2. Circular

☒ 3. Multidimensional

☒ 4. Bidirectional

Q.5 A shopkeeper lists the price of a fan at 22% above its cost price and offers a 15% discount on its list price. What is the cost price (in ₹) of the fan if he sells it at ₹5,185?

- Ans**
- ☐ 1. 4,800
 - ☒ 2. 5,000
 - ☐ 3. 4,500
 - ☐ 4. 5,680

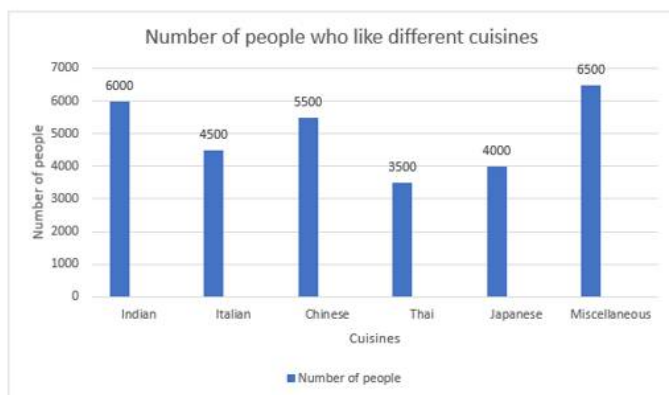
Q.6 What will happen if you pour some acetone on your palm?

- Ans**
- ☐ 1. It will cause no effect on the palm.
 - ☒ 2. It will cause the palm to feel cool.
 - ☐ 3. It will cause the palm to feel hot.
 - ☐ 4. It will cause the palm to feel itchy.

Q.7 Select the INCORRECT pair.

- Ans**
- ☒ 1. Lactic acid – 4 carbon molecules
 - ☐ 2. Pyruvate – 3 carbon molecules
 - ☐ 3. Glucose – 6 carbon molecules
 - ☐ 4. Ethanol – 2 carbon molecules

Q.8 Study the following bar graph and answer the question below.



What is the average number of people who like Indian, Chinese, Thai and miscellaneous cuisines?

- Ans**
- ☐ 1. 5535
 - ☐ 2. 5735
 - ☐ 3. 5355
 - ☒ 4. 5375

Q.9 Which of the following is produced when copper is heated in the presence of air?

- Ans**
- ☒ 1. Black-coloured copper (II) oxide
 - ☐ 2. Brown-coloured copper(II) oxide
 - ☐ 3. Black-coloured copper (I) oxide
 - ☐ 4. Blue-coloured copper(II) oxide

Q.10 What was the speed of the car if it travelled 150 km of distance in 3 hrs?

- Ans**
- ☐ 1. 40 km/h
 - ☒ 2. 50 km/h
 - ☐ 3. 36 km/h
 - ☐ 4. 42 km/h

Q.11 Who among the following won the first 'MTArt Agency x India Art Fair Artist Prize' during the 15th India Art Fair held in February 2024?

- Ans**
- ☐ 1. Asha Parekh
 - ☐ 2. Devika Rani
 - ☒ 3. Sajid Wajid Sheikh
 - ☐ 4. Birendranath Sircar

Q.12 Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

WILD - IWLD - WLDI

TALK - ATLK - TLKA

- Ans**
- ☐ 1. FAIL - AFIL - LAIF
 - ☒ 2. VICE - IVCE - VCEI
 - ☐ 3. BOSE - OBSE - OSEB
 - ☐ 4. RICE - RCIE - ECIR

Q.13 Town L is to the south of Town B. Town Q is to the south-east of Town B. Town N is to the north of Town Q. Town M is to the west of Town B. Town N is to the east of Town M. Town L is to the south-west of Town N. What is the position of Town B with respect to Town N?

- Ans**
- ☐ 1. East
 - ☐ 2. North
 - ☒ 3. West
 - ☐ 4. South

Q.14 A current of 1 A is drawn by a filament of an electric bulb for 5 minutes. Then the amount of electric charge that flows through the circuit will be _____.

- Ans**
- ☐ 1. 150 C
 - ☐ 2. 10 C
 - ☒ 3. 300 C
 - ☐ 4. 5 C

Q.15 The kinetic energy E possessed by an object of mass m and moving with a uniform velocity v is _____.

- Ans**
- ☐ 1. $\frac{1}{3} m v^2$
 - ☒ 2. $\frac{1}{2} m v^2$
 - ☐ 3. $m v^2$
 - ☐ 4. $m v^{-2}$

Q.16 The sodium or potassium salts of which acid are defined as soaps?

- Ans**
- ☐ 1. Sulphuric acid
 - ☐ 2. Hydrochloric acid
 - ☒ 3. Carboxylic acid
 - ☐ 4. Nitric acid

Q.17 Seven boxes A, B, E, F, L, M and P are kept one over the other but not necessarily in the same order. Only A is kept above E. Only F is kept between E and B. Only P is kept below M. How many boxes are kept between L and P?

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

Q.18 Which of the following statements is correct when an acid is dissolved in water ?

- a) The separation of H^+ ions from HCl molecules cannot occur in the absence of water.
- b) Hydrogen ions must always be shown as H^+ (aq) or hydronium ion (H_3O^+).

- Ans**
- ☐ 1. Only a
 - ☐ 2. Neither a nor b
 - ☒ 3. Both a and b
 - ☐ 4. Only b

Q.19 Which of the following was discovered by Rutherford's gold foil experiment?

- Ans**
- ☐ 1. Electron
 - ☐ 2. Proton
 - ☒ 3. Nucleus
 - ☐ 4. Neutron

Q.20 Which of the following options should come in place of the question mark (?) in the given series to make it logically complete?

36, 72, 45, 90, 63, 126, ?

- Ans**
- ☐ 1. 95
 - ☒ 2. 99
 - ☐ 3. 106
 - ☐ 4. 83

Q.21 Who among the following concluded his tenure as the 50th Chief Justice of India in November 2024?

- Ans**
- ☐ 1. Justice Abhay S Oka
 - ☐ 2. Justice Sanjeev Khanna
 - ☒ 3. Justice DY Chandrachud
 - ☐ 4. Justice Surya Kant

Q.22 If the earth had no atmosphere, then the colour of the sky would be _____.

- Ans
- ✓ 1. black
 - ✗ 2. blue
 - ✗ 3. yellow
 - ✗ 4. red

Q.23 There are two classrooms A and B having a certain number of students. If 5 students are shifted from A to B, then B has twice the number of students as A. If 1 student is sent from B to A, then both classrooms will have the same number of students. How many students are there in B?

- Ans
- ✗ 1. 22
 - ✗ 2. 17
 - ✓ 3. 19
 - ✗ 4. 26

Q.24 Refer to the given number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 9 @ 8 S 7 & 3 Ω 9 # 1 * £ 5 & % 4 6 (Right)

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

- Ans
- ✗ 1. More than two
 - ✓ 2. Two
 - ✗ 3. One
 - ✗ 4. None

Q.25 The Finance Minister, in the Union Budget 2024-25, announced the increased loan limit to ₹20 lakhs from the existing ₹10 lakhs of which of the following schemes?

- Ans
- ✗ 1. Stand-Up India Scheme
 - ✗ 2. Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)
 - ✗ 3. Prime Minister's Employment Generation Programme (PMEGP)
 - ✓ 4. Pradhan Mantri MUDRA Yojana (PMMY)

Q.26 The speed of light is _____.

- Ans
- ✗ 1. greater in glass than in water
 - ✗ 2. same in air, glass and water
 - ✗ 3. greater in water than in air
 - ✓ 4. greater in water than in glass

Q.27 A and B complete a work in 2 days. If A alone can do it in 4 days then, B alone can do 19-times of the same work in _____(days).

- Ans
- ✗ 1. 77
 - ✗ 2. 4
 - ✓ 3. 76
 - ✗ 4. 5

Q.28 Which of the following is the general formula of alkane?

- Ans**
- ☐ 1. $C_{2n}H_{2n}$
 - ☐ 2. C_nH_{2n}
 - ☐ 3. C_nH_n
 - ☒ 4. C_nH_{2n+2}

Q.29 Which of the following is NOT a suitable method to deal with non-biodegradable substances?

- Ans**
- ☐ 1. Reuse them
 - ☐ 2. Reduce their production
 - ☒ 3. Throw them openly
 - ☐ 4. Recycle them

Q.30 Devansh starts from point A and drives 10 km towards the North. He takes two simultaneous right turns and drives 3 km and 6 km, respectively. He takes a final right turn and drives 3 km to reach point B. How far (shortest distance) and towards which direction should he drive to reach Point A again? (All turns are 90 degrees turns only unless specified.)

- Ans**
- ☐ 1. 3 km East
 - ☐ 2. 4 km North
 - ☐ 3. 6 km South
 - ☒ 4. 4 km South

Q.31 Find the compound interest on ₹12,000 in 3 years at a rate of 10% per annum, compounded annually.

- Ans**
- ☐ 1. ₹3,872
 - ☐ 2. ₹3,672
 - ☐ 3. ₹3,772
 - ☒ 4. ₹3,972

Q.32 If a constant force of 2 Newton is applied on a body such that displacement of the body in the direction of the applied force is zero, then the work done by the force is _____.

- Ans**
- ☐ 1. 1 joules
 - ☐ 2. 20 joules
 - ☐ 3. 2 joules
 - ☒ 4. 0

Q.33 If the price of sugar decreases by 20%, then by what percentage must a householder increase her consumption of sugar so as to leave her expenditure on sugar unchanged?

- Ans**
- ☐ 1. $33\frac{1}{3}\%$
 - ☐ 2. $16\frac{2}{3}\%$
 - ☒ 3. 25%
 - ☐ 4. 20%

Q.34 An electric geyser of resistance $4\ \Omega$ produces 100 J of heat per sec. The current flowing through it will be:

- Ans**
- ☒ 1. 5 A
 - ☐ 2. 50 A
 - ☐ 3. 25 A
 - ☐ 4. 2.5 A

Q.35 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.)

(3, 12, 36)

(8, 32, 96)

- Ans**
- ☐ 1. (12, 42, 144)
 - ☐ 2. (14, 48, 144)
 - ☐ 3. (12, 48, 124)
 - ☒ 4. (12, 48, 144)

Q.36 The area (in cm^2) of an equilateral triangle whose altitude from vertex is 9 cm, is:

- Ans**
- ☐ 1. $\frac{9\sqrt{3}}{4}$
 - ☐ 2. $\frac{3\sqrt{3}}{2}$
 - ☐ 3. $12\sqrt{3}$
 - ☒ 4. $27\sqrt{3}$

Q.37 The arithmetic mean of 22.5, 56, 42.5, $2x + 1$, $x - 2$, $3x$, 36 is 30. Find x, where $x > 0$.

- Ans**
- ☒ 1. 9
 - ☐ 2. 7
 - ☐ 3. 6
 - ☐ 4. 4

Q.38 In what duration will a sum of money double itself at 5% per annum simple interest?

- Ans**
- ☐ 1. 18 years
 - ☐ 2. 12 years
 - ☐ 3. 10 years
 - ☒ 4. 20 years

Q.39 Which of the following best describes the mixture of air?

- Ans**
- ☐ 1. Colloids
 - ☐ 2. Suspension
 - ☐ 3. Heterogeneous mixture
 - ☒ 4. Homogeneous mixture

Q.40 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 pair does not belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans**
- ☒ 1. LH-KN
 - ☒ 2. NJ-MP
 - ☒ 3. JF-IL
 - ☒ 4. QM-PR

Q.41 A man sells two houses at the rate of ₹1.995 lakhs each. On one he gains 5% and on the other he loses 5%. His gain or loss percentage in the whole transaction is:

- Ans**
- ☒ 1. 0.25% loss
 - ☒ 2. 0.25% gain
 - ☒ 3. 25% loss
 - ☒ 4. 2.5% loss

Q.42 Lakhan and Ram start a business by investing ₹48,000 and ₹72,000, respectively. What is Ram's share out of the annual profit of ₹6,530?

- Ans**
- ☒ 1. ₹2,450
 - ☒ 2. ₹2,612
 - ☒ 3. ₹3,080
 - ☒ 4. ₹3,918

Q.43 Seven people, A, B, E, F, P, Q and R, are sitting in a row, facing north. Only two people sit between A and E. Only P sits to the right of Q. Only one person sits between E and Q. R sits at some place to the right of B but at some place to the left of F. Who sits third from the right end of the row?

- Ans**
- ☒ 1. E
 - ☒ 2. F
 - ☒ 3. B
 - ☒ 4. R

Q.44 Which of the following statements is/are correct related to eco-system?
(i) UV radiation is not damaging to organisms.
(ii) Ozone at the higher levels of the atmosphere is a product of UV radiation acting on oxygen molecule.
(iii) The amount of ozone in the atmosphere began to drop sharply in 1980.

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

Q.45 Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.
PL-QN-ST
JF-KH-MN

- Ans**
- ☒ 1. MI-NK-PQ
 - ☒ 2. TP-UR-WY
 - ☒ 3. SO-TQ-VX
 - 4.

Q.46 Match the following.

(i) Ovary	(a) fertilisation
(ii) Oviduct	(b) implantation
(iii) Uterus	(c) nourishes the growing embryo
(iv) Placenta	(d) makes the female gametes

- Ans
- ☒ 1. (i)-(d), (ii)-(b), (iii)-(a), (iv)-(c)
 - ☒ 2. (i)-(d), (ii)-(c), (iii)-(b), (iv)-(a)
 - ☒ 3. (i)-(d), (ii)-(a), (iii)-(b), (iv)-(c)
 - ☒ 4. (i)-(b), (ii)-(a), (iii)-(d), (iv)-(c)

Q.47 Refer to the given number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 3 Ω 9 # 1 7 3 @ 1 ^ 9 # * £ 5 8 S 7 & * £ 5 (Right)

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

- Ans
- ☒ 1. None
 - ☒ 2. One
 - ☒ 3. More than two
 - ☒ 4. Two

Q.48 In a displacement reaction, what is the key factor that determines whether a more reactive metal will displace a less reactive metal from its compound?

- Ans
- ☒ 1. Concentration of the compound
 - ☒ 2. Temperature of the reaction
 - ☒ 3. Size of the metal atoms
 - ☒ 4. Position of the metals in the reactivity series

Q.49 Which of the following is a covalent compound?

- Ans
- ☒ 1. MgCl_2
 - ☒ 2. NaCl
 - ☒ 3. MgO
 - ☒ 4. CH_4

Q.50 Which one of the following organisms shows multiple fission?

- Ans
- ☒ 1. Plasmodium
 - ☒ 2. Yeast
 - ☒ 3. Hydra
 - ☒ 4. Leishmania

Q.51 What is the measure of each exterior angle of a regular decagon?

- Ans
- ☐ 1. 60°
 - ☐ 2. 30°
 - ☒ 3. 36°
 - ☐ 4. 45°

Q.52 Which of the following statements about solutions is correct?

- Ans
- ☐ 1. A solution is a heterogeneous mixture.
 - ☐ 2. The concentration of a solution can only be expressed in terms of mass per cent.
 - ☒ 3. The solute is present in a smaller amount than the solvent.
 - ☐ 4. Solutions can be separated using simple filtration.

Q.53 Evaluate the given expression.

$$(-20) \times (-1) + 14 \div 7$$

- Ans
- ☐ 1. 18
 - ☐ 2. -22
 - ☒ 3. 22
 - ☐ 4. -18

Q.54 Which of the following is NOT a reproductive part of Rhizopus?

- Ans
- ☐ 1. Sporangiohores
 - ☐ 2. Sporangium
 - ☐ 3. Spores
 - ☒ 4. Hyphae

Q.55 What term is used for the reaction between acids and bases that results in the formation of salt and water?

- Ans
- ☒ 1. Neutralisation reaction
 - ☐ 2. Hydrolysis reaction
 - ☐ 3. Polymerisation reaction
 - ☐ 4. Photosynthesis reaction

Q.56 The ratio of the volumes of two cubes is 729 : 1331. What is the ratio of their total surface areas?

- Ans
- ☐ 1. 27 : 121
 - ☐ 2. 729 : 1331
 - ☒ 3. 81 : 121
 - ☐ 4. 9 : 11

Q.57 The value of $x^{\frac{1}{2}} \times Y^{-1} \times z^{\frac{2}{3}}$, when $x = 9$, $Y = 3$, and $z = 8$ is:

- Ans
- ☐ 1. 6
 - ☐ 2. 18
 - ☒ 3. 3
 - ☐ 4. 4

Q.58 Which city won the UN-Shanghai Global Award for its sustainable urban development initiatives in 2024?

- Ans**
- ☐ 1. Agadir
 - ☐ 2. Doha
 - ☒ 3. Thiruvananthapuram
 - ☐ 4. Melbourne

Q.59 Refer to the given series and answer the question that follows (all numbers are single-digit numbers only, and all counting is to be done from left to right).

(Left) 9 7 4 5 1 8 2 7 5 1 3 4 2 3 7 4 9 5 2 7 5 6 9 2 8 5 4 1 9 3 (Right)

How many such odd digits are there, each of which is immediately preceded by an odd digit and also immediately followed by an odd digit?

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

Q.60 The ratio between the present ages of Amit and Amita is 7 : 5, respectively. The ratio between Amit’s age 5 years ago and Amita’s age 5 years hence is 1 : 1. After how many years from now will the age of Amit and Amita together be 72 years?

- Ans**
- ☐ 1. 4 years
 - ☒ 2. 6 years
 - ☐ 3. 5 years
 - ☐ 4. 7 years

Q.61 A book is pushed with a constant force of 1 N. It displaces 1 m in the direction of the force. The work done by the force is:

- Ans**
- ☐ 1. 0
 - ☐ 2. -1 J
 - ☒ 3. +1 J
 - ☐ 4. 2 J

Q.62 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Which numbers should replace X and Y so that the pattern followed by the two numbers on the left side of :: is same as that on the right side of ::?

(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.)

X : 19 :: 92 : Y

- Ans**
- ☐ 1. X = 98, Y = 24
 - ☐ 2. X = 84, Y = 26
 - ☒ 3. X = 76, Y = 23
 - ☐ 4. X = 88, Y = 21

Q.63 In a certain code language, ‘REVS’ is coded as ‘6942’ and ‘ORES’ is coded as ‘6421’. What is the code for ‘V’ in the given code language?

- Ans**
- ☐ 1. 2
 - ☒ 2. 9
 - ☐ 3. 4
 - ☐ 4. 6

Q.64 What was the key defense procurement, approved in September 2024, to enhance India's naval defense capabilities?

- Ans**
- ☐ 1. Launch of a new aircraft carrier for the Indian Navy
 - ☐ 2. Acquisition of advanced naval radar systems
 - ☒ 3. Approval of seven Project 17B stealth frigates for the Indian Navy
 - ☐ 4. Procurement of multi-role submarines

Q.65 Which of the following natural phenomena is due to the force of gravitation between the moon and the earth?

- Ans**
- ☐ 1. Blue color of the sky
 - ☐ 2. Thunderstorms
 - ☒ 3. Tides
 - ☐ 4. Rainbow

Q.66 The distance from the focus point of a mirror to the pole is known as:

- Ans**
- ☐ 1. radius of curvature
 - ☒ 2. focal length
 - ☐ 3. aperture
 - ☐ 4. centre of curvature

Q.67 An object is placed between F and 2F of a concave lens. Which of the following options represents the characteristics of the image formed?

- Ans**
- ☐ 1. Virtual and enlarged
 - ☒ 2. Virtual and diminished
 - ☐ 3. Real and diminished
 - ☐ 4. Real and enlarged

Q.68 What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and '×' and '÷' are interchanged?

$35 \times 7 - 2 \div 6 - 13 = ?$

- Ans**
- ☐ 1. 7
 - ☒ 2. 6
 - ☐ 3. 4
 - ☐ 4. 9

Q.69 What is the mode of the following data?

66, 69, 83, 69, 84, 74, 71, 83, 69, 84, 73, 83, 69, 71, 84, 74, 83, 66, 74, 71, 83, 66, 90, 90

- Ans**
- ☐ 1. 90
 - ☒ 2. 83
 - ☐ 3. 74
 - ☐ 4. 84

Q.70 What is the function of the growth hormone secreted by the pituitary gland?

- Ans**
- ☐ 1. It regulates the blood sugar level.
 - ☐ 2. It regulates the menstrual cycle.
 - ☒ 3. It stimulates growth in all organs.
 - ☐ 4.

Q.71 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?

$16\ C\ 24\ A\ 3\ B\ 8\ D\ 5 = ?$

- Ans**
- ✓ 1. 75
 - ✗ 2. 65
 - ✗ 3. 70
 - ✗ 4. 80

Q.72 If A's income is 40% less than B's income, then A's income is what percentage of B's income?

- Ans**
- ✗ 1. 166.67%
 - ✓ 2. 60%
 - ✗ 3. 40%
 - ✗ 4. 75%

Q.73 What was the theme of 'Vigilance Awareness Week' observed from 28th October to 3rd November 2024, which is an initiatives of the Central Vigilance Commission in the fight against corruption?

- Ans**
- ✗ 1. Say No to Corruption; Commit to the Nation
 - ✗ 2. Corruption Free India for a Developed National
 - ✗ 3. Satark Bharat, Samriddh Bharat
 - ✓ 4. Culture of Integrity for Nation's Prosperity

Q.74 Seven people, A, B, C, D, E, F and G, are sitting in a row, facing north. B sits third from the right end. Only one person sits to the left of D. F sits to the right of B but left of G. E is an immediate neighbour of C and D. How many people sit between A and G?

- Ans**
- ✗ 1. Three
 - ✓ 2. Five
 - ✗ 3. Two
 - ✗ 4. Four

Q.75 In a certain code language,
'P – Q' means 'P is the sister of Q',
'P – Q' means 'P is the son of Q',
'P x Q' means 'P is the husband of Q' and
'P ÷ Q' means 'P is the daughter of Q'.
How is A related to E if 'A + B – C x D ÷ E'?

- Ans**
- ✗ 1. Son's daughter
 - ✗ 2. Daughter
 - ✓ 3. Daughter's daughter
 - ✗ 4. Sister

Q.76 Simplify the following expression:

9993×10007

- Ans
- ☐ 1. 91999949
 - ☐ 2. 9999951
 - ☒ 3. 99999951
 - ☐ 4. 9999949

Q.77 An organism simply splits into two equal halves during cell division. What is it known as?

- Ans
- ☒ 1. Binary fission
 - ☐ 2. Spore formation
 - ☐ 3. Regeneration
 - ☐ 4. Budding

Q.78 In a certain code language, 'REPS' is coded as '9631' and 'EARS' is coded as '6914'. What is the code for 'A' in the given code language?

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

Q.79 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 and decide which conclusion(s) logically follow(s) from the given statements.

Statements:

No door is a lock.

No lock is a key

Conclusions:

I. No door is a key.

II. No lock is a door.

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

Q.80 Which of the following statements is INCORRECT?

- Ans
- ☒ 1. All metals are equally reactive.
 - ☐ 2. Silver is less reactive than sodium.
 - ☐ 3. All metals are not equally reactive.
 - ☐ 4. Potassium is more reactive than gold.

Q.81 Which of the following sportspersons was one of the India's flagbearers for the Paris 2024 Olympics?

- Ans
- ☐ 1. MC Mary Kom
 - ☐ 2. Neeraj Chopra
 - ☐ 3. Vinesh Phogat
 - ☒ 4. A Sharath Kamal

Q.82 Given below is a statement followed by two courses of actions, numbered I and II. You must assume everything in the statement to be true, and on the basis of the information given in the statement, decide which of the courses of action logically follow(s) for pursuing.

Statement:

School X has received a notice from the Commissioner of Police on the many complaints that have been received regarding the traffic jam caused outside the school gates every morning between 8 a.m. and 9 a.m. due to illegal parking of cars.

Courses of Action:

(I) School X should deploy security personnel to monitor the illegal car parking outside school gates and clear any jams being caused.

(II) School X should ban parents from dropping their children by car to the school.

- Ans**
- ☒ 1. Both I and II follow
 - ☒ 2. Only I follows
 - ☒ 3. Neither I nor II follows
 - ☒ 4. Only II follows

Q.83 Organisms having only one cell are called _____.

- Ans**
- ☒ 1. singular
 - ☒ 2. unicellular
 - ☒ 3. multicellular
 - ☒ 4. unisexual

Q.84 A sum of money is to be distributed among four members A, B, C, and D in the ratio 4 : 7 : 9 : 3. If C gets ₹720 more than D, find the difference between C's and B's shares.

- Ans**
- ☒ 1. ₹240
 - ☒ 2. ₹480
 - ☒ 3. ₹160
 - ☒ 4. ₹360

Q.85 Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

ORN, QTP, SVR, UXT, ?

- Ans**
- ☒ 1. WVZ
 - ☒ 2. WZV
 - ☒ 3. VZW
 - ☒ 4. VWZ

Q.86 Simplify the given expression.

$$\left(\frac{2}{3} + \frac{1}{3}\right) \times 23 - 13 + 9$$

- Ans**
- ☒ 1. 29
 - ☒ 2. 16
 - ☒ 3. 23
 - ☒ 4. 19

Q.87 Identify the correct match.

- Ans**
- ☐ 1. Bacterial infections : Warts and HIV-AIDS
 - ☐ 2. Viral infections : Gonorrhoea and syphilis
 - ☐ 3. Bacterial infections : Warts and gonorrhoea
 - ☐ 4. Viral infections : Syphilis and HIV-AIDS
 - ☒ 5. Bacterial infections : Gonorrhoea and syphilis
 - ☐ 6. Viral infections : Warts and HIV-AIDS
 - ☐ 7. Bacterial infections : Warts and syphilis
 - ☐ 8. Viral infections : Gonorrhoea and HIV-AIDS

Q.88 Which of the following does NOT have neurons?

- Ans**
- ☒ 1. Adipocyte
 - ☐ 2. Nerves
 - ☐ 3. Spinal cord
 - ☐ 4. Brain

Q.89 The shortest distance measured from the initial to the final position of an object is known as _____.

- Ans**
- ☐ 1. acceleration
 - ☐ 2. velocity
 - ☒ 3. displacement
 - ☐ 4. speed

Q.90 Which of the following Union ministries presented a special festival series titled 'Amrit Parampara' in November 2024?

- Ans**
- ☒ 1. Ministry of Culture
 - ☐ 2. Ministry of External Affairs
 - ☐ 3. Ministry of Textiles
 - ☐ 4. Ministry of Tourism

Q.91 Which of the following edible acids is added to baking soda for making baking powder?

- Ans**
- ☐ 1. Sodium chloride
 - ☒ 2. Tartaric acid
 - ☐ 3. Lactic acid
 - ☐ 4. Vinegar

Q.92 When an object moves in a circular path with uniform speed, its motion is called _____.

- Ans**
- ☐ 1. linear motion
 - ☒ 2. uniform circular motion
 - ☐ 3. motion along a straight line
 - ☐ 4. motion along a hemisphere

Q.93 The number of factors of any prime number is:

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

Q.94 Which group of companies was named the principal sponsor for Team India at the Paris Olympics 2024?

- Ans
- ☐ 1. Aditya Birla
 - ☒ 2. Adani
 - ☐ 3. Reliance
 - ☐ 4. Puma

Q.95 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 and decide which conclusion(s) logically follow(s) from the given statements.

Statements:

All coats are jackets.

Some coats are sweaters.

Conclusions:

(I) Some jackets are not coats.

(II) Some jackets are sweaters.

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

Q.96 Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

IMH, LPK, OSN, RVQ, ?

- Ans
- ☐ 1. YUT
 - ☐ 2. YTU
 - ☐ 3. UTY
 - ☒ 4. UYT

Q.97 Which of the following endocrine glands secretes growth hormones?

- Ans
- ☒ 1. Pituitary gland
 - ☐ 2. Testes
 - ☐ 3. Thyroid gland
 - ☐ 4. Adrenal gland

Q.98 $\frac{\sin \theta (1 + \cos \theta)}{1 + \cos \theta - \sin^2 \theta}$, $0^\circ < \theta < 90^\circ$, is equal to :

- Ans
- ☐ 1. cosec θ
 - ☐ 2. sin θ
 - ☒ 3. tan θ
 - ☐ 4.

Q.99 A, B and C can do a piece of work in 15, 10 and 30 days, respectively. In how many days can A do the work if he is assisted by B and C on every 3rd day?

- Ans**
-  1. 12 days
 -  2. 9 days
 -  3. 6 days
 -  4. 15 days

Q.100 Dr. Avesh Kumar Tyagi, the recipient of Vigyan Shri Award 2024 in the field of Atomic Energy, is associated with which of the following institutes as of 01 November 2024?

- Ans**
-  1. Variable Energy Cyclotron Centre (VECC), Kolkata
 -  2. Bhabha Atomic Research Centre (BARC), Mumbai
 -  3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
 -  4. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam