



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



Test Date	27/12/2024
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 The mode of the observations 20, 23, 25, 30, 20, 31, 32, 35, 20, 41, 42, 43, 20 and 20 is:

Ans ☒ 1. 40

☒ 2. 30

☒ 3. 35

☒ 4. 20

Q.2 Accumulation of which substance in our muscles during sudden activity causes cramps?

Ans ☒ 1. Sucrose

☒ 2. Pyruvic acid

☒ 3. Lactic acid

☒ 4. Glucose

Q.3 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:

Some slippers are shoes.

Some shoes are belts.

Conclusions:

(I) Some belts are slippers.

(II) No belt is a slipper.

Ans ☒ 1. Both conclusions (I) and (II) follow

☒ 2. Only conclusion (I) follows

☒ 3. Only conclusion (II) follows

☒ 4. Neither conclusion (I) nor (II) follows

Q.4 In ΔPQR , $\angle Q = \angle R$ and $QR = 12$ cm, $PR = 10$ cm and PS be the altitude, then the length of PS is:

- Ans**
- ☐ 1. 3 cm
 - ☒ 2. 8 cm
 - ☐ 3. 11 cm
 - ☐ 4. 10 cm

Q.5 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 bulbs are lights.

Some lights are fans.

Conclusions:

(I) Some fans are bulbs.

(II) All bulbs are fans.

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

Q.6 Which of the following reactions is NOT an exothermic reaction?

- Ans**
- ☐ 1. Dilution of a strong acid
 - ☒ 2. Photosynthesis
 - ☐ 3. Respiration
 - ☐ 4. Burning of natural gas

Q.7 If 'A' stands for '+', 'B' stands for '×', 'C' stands for '÷' and 'D' stands for '−', what will be come in place of the question mark '?' in the following equation?

$$(14 \text{ B } 4) \text{ A } 2 \text{ C } (15 \text{ A } 5) \text{ B } 9 \text{ D } 34 \text{ C } (48 \text{ A } 6) \text{ B } 2 = ?$$

- Ans**
- ☐ 1. 45
 - ☒ 2. 37
 - ☐ 3. 22
 - ☐ 4. 17

Q.8 Which of the following forts, India's nomination for the UNESCO World Heritage List for 2024-25, was the site of the coronation of Shivaji Maharaj?

- Ans**
- ☐ 1. Korigad Fort
 - ☐ 2. Mangi-Tungi Fort
 - ☐ 3. Karnala Fort
 - ☒ 4. Raigad Fort

Q.9 Which organ of the human body pumps blood?

- Ans**
- ☐ 1. Liver
 - ☐ 2. Pancreas
 - ☐ 3. Stomach
 - ☒ 4. Heart

Q.10 By selling 8 oranges for ₹40, a man loses 20%. How many should he sell for ₹30 to gain 20% in the transaction?

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

Q.11 What is the position of the image formed by a concave mirror if the object is placed just beyond the centre of curvature of the mirror?

- Ans**
- ☒ 1. Between the centre of curvature and the focus point
 - ☐ 2. At infinity
 - ☐ 3. At the centre of curvature
 - ☐ 4. At the focus

Q.12 The surface area of a sphere is same as the curved surface area of a right circular cylinder whose height and diameter are 12 cm each. The radius of the sphere is.

- Ans**
- ☐ 1. 4 cm
 - ☐ 2. 8 cm
 - ☒ 3. 6 cm
 - ☐ 4. 12 cm

Q.13 In an election between two candidates, one got 55% of the total valid votes, and 20% of the votes were invalid. If the total number of votes was 7500, the number of valid votes that the other candidate got was:

- Ans**
- ☐ 1. 3000
 - ☐ 2. 2600
 - ☒ 3. 2700
 - ☐ 4. 3300

Q.14 The atomic mass of carbon-12 isotope is:

- Ans**
- ☐ 1. 6 u
 - ☒ 2. 12 u
 - ☐ 3. 16 u
 - ☐ 4. 14 u

Q.15 The founder and chairman of which of the following companies topped the EdelGive-Hurun India Philanthropy List 2024?

- Ans**
- ☒ 1. HCL Technologies
 - ☐ 2. Reliance Industries
 - ☐ 3. WIPRO
 - ☐ 4. TCS

Q.16 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 : 163 :: 74 : Y

- Ans**
- ✓ 1. X = 81, Y = 149
 - ✗ 2. X = 86, Y = 129
 - ✗ 3. X = 93, Y = 156
 - ✗ 4. X = 79, Y = 145

Q.17 If $\tan \theta + \cot \theta = 13$, then find the value of $8 \tan^2 \theta + 8 \cot^2 \theta$.

- Ans**
- ✓ 1. 1336
 - ✗ 2. 169
 - ✗ 3. 167
 - ✗ 4. 1372

Q.18 JGOK is related to HEMI in a certain way based on the English alphabetical order. In the same way, TQYU is related to ROWS. To which of the following options is NKSO related, following the same logic?

- Ans**
- ✗ 1. ILQM
 - ✓ 2. LIQM
 - ✗ 3. ILMQ
 - ✗ 4. LIMQ

Q.19 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 the 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 : 75 :: 29 : Y

- Ans**
- ✗ 1. X = 28, Y = 74
 - ✗ 2. X = 26, Y = 76
 - ✗ 3. X = 21, Y = 89
 - ✓ 4. X = 23, Y = 81

Q.20 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?

85 A 17 C 82 D 11 B 2 =?

- Ans**
- ✓ 1. 65
 - ✗ 2. 67
 - ✗ 3. 68
 - ✗ 4. 66

Q.21 The age of a mother six years ago was six times the age of her daughter, at that time. Three years hence, the mother will be thrice as old as her daughter. What is the difference between the present age of the mother and her daughter?

- Ans**
- ☐ 1. 36 years
 - ☐ 2. 42 years
 - ☐ 3. 24 years
 - ☒ 4. 30 years

Q.22 In a certain code language, 'PILED' is coded as '65428' and 'PEDAL' is coded as '57628'. What is the code for 'I' in the given code language?

- Ans**
- ☐ 1. 2
 - ☒ 2. 4
 - ☐ 3. 6
 - ☐ 4. 8

Q.23 On November 9, 2024, which city recorded the highest Air Quality Index (AQI) among Punjab, Haryana, and Chandigarh?

- Ans**
- ☒ 1. Chandigarh
 - ☐ 2. Sonipat
 - ☐ 3. Bahadurgarh
 - ☐ 4. Mandi Gobindgarh

Q.24 The areas of three adjacent faces of a solid cuboid are 66 cm^2 , 192 cm^2 and 198 cm^2 . What is the volume (in cm^3) of the cuboid?

- Ans**
- ☐ 1. 1782
 - ☐ 2. 1792
 - ☒ 3. 1584
 - ☐ 4. 1594

Q.25 Find the compound interest on ₹13,000 in 2 years at 4% p.a., interest compounded yearly.

- Ans**
- ☒ 1. ₹1,060.80
 - ☐ 2. ₹996.50
 - ☐ 3. ₹1,086.60
 - ☐ 4. ₹997.60

Q.26 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:

Some books are trees.

All trees are mats.

All mats are ponds.

Conclusions:

(I) Some ponds are books.

(II) Some mats are books.

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

Q.27 Which animal was declared the official mascot of 2024 Khelo India Winter Games?

- Ans**
- ☐ 1. Yak
 - ☐ 2. Sheep
 - ☐ 3. Snow bear
 - ☒ 4. Snow leopard

Q.28 Who, along with Parthiv Dhar, won the Best Book on Cinema award for 'Kishore Kumar: The Ultimate Biography', as announced by the Ministry of Information & Broadcasting in October 2024?

- Ans**
- ☐ 1. Heena Choudhary
 - ☒ 2. Anirudha Bhattacharjee
 - ☐ 3. Nayanjyoti Sarma
 - ☐ 4. Sutapa Chakraborty

Q.29 Which of the following statements regarding saturated and unsaturated carbon compounds is correct?

Statement I: Saturated carbon compounds are hydrocarbons where carbon atoms are connected by single covalent bonds.

Statement II: Unsaturated carbon compounds are hydrocarbons where carbon atoms are connected by single covalent bonds.

- Ans**
- ☐ 1. Only statement II is correct.
 - ☒ 2. Only statement I is correct.
 - ☐ 3. Both statements I and II are correct.
 - ☐ 4. Neither statement I nor II is correct.

Q.30 What sum will earn a simple interest of ₹960 in 3 years at 16% per year rate of interest?

- Ans**
- ☐ 1. ₹1,600
 - ☒ 2. ₹2,000
 - ☐ 3. ₹2,200
 - ☐ 4. ₹1,800

Q.31 Evaluate the given expression.

$$(24 \div 3) \times 2$$

- Ans**
- ☐ 1. 4
 - ☐ 2. 18
 - ☐ 3. 12
 - ☒ 4. 16

Q.32 In the rear-view mirror of cars, people use which of the following?

- Ans**
- ☐ 1. Plano-convex lens
 - ☒ 2. Convex mirror
 - ☐ 3. Biconvex lens
 - ☐ 4. Concave mirror

Q.33 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. TP – OI
 - ☒ 2. BX – WQ
 - ☒ 3. KO – WA
 - ☒ 4. AW – VP

Q.34 Which of the following processes involves the transfer of a source of energy (food) from outside the body of an organism to inside?

- Ans**
- ☒ 1. Nutrition
 - ☒ 2. Transportation
 - ☒ 3. Metabolism
 - ☒ 4. Translocation

Q.35 The kind of energy possessed by a moving body by virtue of its motion is _____.

- Ans**
- ☒ 1. kinetic energy
 - ☒ 2. electromagnetic energy
 - ☒ 3. potential energy
 - ☒ 4. nuclear energy

Q.36 Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

SALT - ALST - TLAS

HOLE - OLHE - ELOH

- Ans**
- ☒ 1. FING - INFG - INGF
 - ☒ 2. GREW - GERW - WERG
 - ☒ 3. VIBE - IBVE - EBIV
 - ☒ 4. ROAM - ORAM - MOAR

Q.37 Select the term which is not an identity.

- Ans**
- ☒ 1. $(a + b)^2 = a^2 + b^2 + 2ab$
 - ☒ 2. $(a - b)^2 = a^2 + b^2 - 2ab$
 - ☒ 3. $(a + 1)(a + 2) = a^2 + 3a + 2$
 - ☒ 4. $(a + b)^2 = a^2 + b^2$

Q.38 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) 8 7 7 8 5 2 7 1 4 3 2 4 7 7 6 4 5 3 1 2 6 7 9 7 9 8 0 1 3 3 (Right)

How many such odd digits are there, each of which is immediately preceded by a perfect square and immediately followed by an even digit? (Note: 1 will be considered as a perfect square.)

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

Q.39 A change of state directly from gas to solid without changing into liquid state is called:

- Ans**
- ☐ 1. vaporisation
 - ☒ 2. deposition
 - ☐ 3. solidification
 - ☐ 4. fusion

Q.40 The value of $\left(-\frac{5}{3}\right) \times \left(\frac{9}{25}\right) + \left(\frac{1}{5} - 3\right) = ?$

- Ans**
- ☐ 1. 0
 - ☒ 2. $-\frac{17}{5}$
 - ☐ 3. $-\frac{4}{5}$
 - ☐ 4. $\frac{9}{5}$

Q.41 A worker lifts a rice bag of 10 kg from the ground and puts it on the truck 2 m above the ground. Calculate the work done by him on the rice bag. (Given, $g = 10 \text{ m s}^{-2}$)

- Ans**
- ☐ 1. 59 J
 - ☒ 2. 200 J
 - ☐ 3. 100 J
 - ☐ 4. 153 J

Q.42 Which of the following is produced when zinc oxide reacts with carbon?

- Ans**
- ☐ 1. Zn and CO_2
 - ☒ 2. Both Zn and CO
 - ☐ 3. Only Zn
 - ☐ 4. Only CO

Q.43 What is the SI unit of momentum?

- Ans**
- ☐ 1. $\text{kg m}^{-1} \text{s}^{-1}$
 - ☐ 2. kg m
 - ☒ 3. kg m s^{-1}
 - ☐ 4. kg m s

Q.44 A combination of two lenses of power +2.0 D and -0.25 D is equivalent to a single lens of power:

- Ans**
- ☒ 1. +1.75 D
 - ☐ 2. +1.25 D
 - ☐ 3. +2.25 D
 - ☐ 4. -3.5 D

Q.45 Which one of the following plant parts is NOT used for vegetative propagation?

- Ans
- ☐ 1. Stem
 - ☐ 2. Root
 - ☒ 3. Seed
 - ☐ 4. Leaves

Q.46 Which of the following statements is/are correct regarding the atomic number of an element?

Statement I: The atomic number of an element represents the number of protons present in the nucleus of an atom.

Statement II: The atomic number of an element represents the number of neutrons present in the nucleus of an atom.

- Ans
- ☐ 1. Neither statement I nor II is correct.
 - ☒ 2. Only statement I is correct.
 - ☐ 3. Only statement II is correct.
 - ☐ 4. Both statements I and II are correct.

Q.47 Krishi Sakhi Convergence Programme (KSCP), under the Lakhpati Didi programme, was launched from which of the following places in June 2024 by Prime Minister Narendra Modi?

- Ans
- ☐ 1. Ahmedabad
 - ☐ 2. Nagpur
 - ☐ 3. Lucknow
 - ☒ 4. Varanasi

Q.48 ఈ క్రింద I మరియు II సంఖ్యలతో కూడిన రెండు కారణాలతో ఒక ప్రకటన ఇవ్వబడింది. ప్రకటనను జాగ్రత్తగా చదవి, ప్రకటనలో ఇచ్చిన సంఘటన/పరిశీలన/సమాచారంను రెండింటిలో ఏది/ఏవి సరిగ్గా వివరిస్తుందో నిర్ణయించండి.

ప్రకటన - ఒక దేశం, ప్రాంతం, నివాస స్థలం నుండి ఒక వ్యక్తి లేదా వ్యక్తులు మరొక దేశం, ప్రాంతం, నివాస స్థలంలో స్థిరపడటానికి వెళ్లడాన్ని వలస అంటారు.

కారణాలు:

I. ఒక వ్యక్తి లేదా వ్యక్తులు ఉద్యోగం లేదా ఆర్థిక అవకాశాల కోసం, కుటుంబం కోసం లేదా చదువుకోవడానికి వలసపోతారు. మరికొందరు సంపూర్ణ, హింస, ఉగ్రవాదం లేదా మానవ హక్కుల ఉల్లంఘనల నుండి తప్పించుకోవడానికి వలసపోతారు.

II. ఒక వ్యక్తి లేదా వ్యక్తులు వాతావరణ మార్పు, ప్రకృతి వైపరీత్యాలు లేదా ఇతర పర్యావరణ కారకాల యొక్క ప్రతికూల ప్రభావాలకు ప్రతిస్పందనగా వలసపోతారు.

- Ans
- ☐ 1. I కానీ లేదా II కానీ సాధ్యమయ్యే కారణం కాదు.
 - ☒ 2. I మరియు II రెండూ సాధ్యమయ్యే కారణాలు.
 - ☐ 3. I మాత్రమే సాధ్యమైన కారణం.
 - ☐ 4. II మాత్రమే సాధ్యమైన కారణం.

Q.49 Who took over as the new Director General (Acquisition) in the Defence Ministry in January 2024?

- Ans
- ☒ 1. Samir Kumar Sinha
 - ☐ 2. Arun Kumar Sinha
 - ☐ 3. Rajeev Kumar
 - ☐ 4. Ramesh Chandra

Q.50 A and B complete a work in 2 days. If A alone can do it in 4 days then, B alone can do 21-times of the same work in _____(days).

- Ans
- ☒ 1. 84
 - ☐ 2. 85
 - ☐ 3. 4
 - ☐ 4. 5

Q.51 A series of compounds in which the same functional group substitutes for hydrogen in a carbon chain is called _____.

- Ans**
- ☐ 1. isochores
 - ☐ 2. isomers
 - ☐ 3. isobars
 - ☒ 4. homologous series

Q.52 Which of the following metals does NOT react with cold water?

- Ans**
- ☐ 1. Potassium
 - ☐ 2. Sodium
 - ☐ 3. Calcium
 - ☒ 4. Magnesium

Q.53 The value of $0.0488 \div 0.002 = ?$

- Ans**
- ☐ 1. 18.7
 - ☐ 2. 21.5
 - ☒ 3. 24.4
 - ☐ 4. 13.8

Q.54 A train of 24 carriages, each of 60 m length, while an engine also of 60 m length is running at a speed of 50 km/h. In how much time will the train cross a bridge 1.5 km long?

- Ans**
- ☒ 1. 3.6 min
 - ☐ 2. 4 min
 - ☐ 3. 3 min
 - ☐ 4. 4.4 min

Q.55 Which of the following is/are NOT present in the plasma?

- Ans**
- ☐ 1. Hormones
 - ☐ 2. Salts
 - ☒ 3. Undigested food
 - ☐ 4. Proteins

Q.56 The inverse ratio of 1 : 2 : 3 is:

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

Q.57 Which of the following options should come in place of the question mark (?) in the given series to make it logically complete?

78, 124, 152, 198, 226, 272, ?

- Ans**
- ☐ 1. 294
 - ☐ 2. 286
 - ☒ 3. 300
 - ☐ 4. 320

Q.58 What digit must be assigned to k so that the 7-digit number 451k603 is exactly divisible by 9?

- Ans**
- ☒ 1. 8
 - ☐ 2. 5
 - ☐ 3. 7
 - ☐ 4. 2

Q.59 Which team won the gold medal at 2024 Badminton Asia Team Championships in February 2024?

- Ans**
- ☐ 1. Malaysia
 - ☒ 2. India
 - ☐ 3. Thailand
 - ☐ 4. Japan

Q.60 Seven people, A, B, E, F, P, Q and R, are sitting in a row, facing north. Only two people sit to the left of B. Only three people sit between B and R. P sits second to the right of B. Only two people sit between P and A. F sits at some place to the right of E but at some place to the left of Q. How many people sit to the right of F?

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

Q.61 In a certain code language, 'ROSE' is coded as '4618' and 'SEAR' is coded as '6438'. What is the code for 'O' in the given code language?

- Ans**
- ☐ 1. 4
 - ☐ 2. 6
 - ☐ 3. 8
 - ☒ 4. 1

Q.62 A shopkeeper allows a 4% discount on his marked price. If the cost price of an article is ₹120 and he has to make a profit of 10%, then his marked price must be:

- Ans**
- ☐ 1. ₹127.50
 - ☒ 2. ₹137.50
 - ☐ 3. ₹120.50
 - ☐ 4. ₹117.50

Q.63 If 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same in 2 days, the time taken by 40 men and 20 boys in doing the same type of work will be:

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

Q.64 The population of a town is 1,76,400. If it increases at the rate of 5% per annum, then what will be its population 2 years hence?

- Ans**
- ☐ 1. 1,94,572
 - ☐ 2. 1,94,621
 - ☐ 3. 1,93,636
 - ☒ 4. 1,94,481

Q.65

If $x = 3^2 \times 2^3$, then $x^4 = ?$

Ans

☐ 1. $3^8 \times 2^3$

☒ 2. $3^8 \times 2^{12}$

☐ 3. $3^6 \times 2^3$

☐ 4. $3^6 \times 2^7$

Q.66

A girl pushes a trolley with a constant force F through a distance s , the work done will be:

Ans

☐ 1. $F - s$

☐ 2. F/s

☒ 3. $F \times s$

☐ 4. $F + s$

Q.67

Which tissue is responsible for the movement in our body?

Ans

☒ 1. Muscular tissue

☐ 2. Cartilage

☐ 3. Epithelial tissue

☐ 4. Areolar tissue

Q.68

In a certain code language,

$P + Q$ means 'P is the father of Q',

$P - Q$ means 'P is the son of Q',

$P \times Q$ means 'P is the wife of Q' and

$P \div Q$ means 'P is the brother of Q'.

Based on the above, how is K related to R if ' $M \div N \times O + K \times L - R$ '?

Ans

☒ 1. Son's wife

☐ 2. Son

☐ 3. Daughter

☐ 4. Mother

Q.69

A cube-shaped metal box of 1 kg mass is kept on the horizontal surface of a table. Assuming acceleration due to gravity is 10 m/sec^2 , the thrust acting on the table surface is _____.

Ans

☐ 1. 1 N

☐ 2. 100 N

☐ 3. 1000 N

☒ 4. 10 N

Q.70 Select the correct option related to the function of auxin in plants.

- Ans**
- ☐ 1. Make plants insect resistant
 - ☐ 2. Induce flowering
 - ☐ 3. Increases stem width
 - ☒ 4. Helps the cells to grow longer

Q.71 Which of the following compounds is used in a soda-acid fire extinguisher?

- Ans**
- ☐ 1. Na_2CO_3
 - ☐ 2. $\text{Ca}(\text{OH})_2$
 - ☒ 3. NaHCO_3
 - ☐ 4. H_2CO_3

Q.72 Which of the following statements is correct about the ozone?

- Ans**
- ☒ 1. Decrease in the amount of ozone in the atmosphere is due to chlorofluorocarbons (CFC).
 - ☐ 2. It causes blood cancer.
 - ☐ 3. It is not poisonous.
 - ☐ 4. It is formed by combining only two atoms of oxygen.

Q.73 A ball of mass 0.5 kg is moving with a uniform velocity of 6 m/s. The kinetic energy of the ball is:

- Ans**
- ☒ 1. 9 J
 - ☐ 2. 6 J
 - ☐ 3. 15 J
 - ☐ 4. 12 J

Q.74 Use of regenerative cells in the process of budding is present in:

- Ans**
- ☐ 1. Spirogyra
 - ☐ 2. Amoeba
 - ☐ 3. Planaria
 - ☒ 4. Hydra

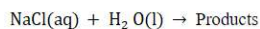
Q.75 If each vowel in the word MAJORITY is changed to the letter following it in the English alphabetical order and each consonant is changed to the letter preceding it in the English alphabetical order, then how many letters are common between the original word and the group of letters thus formed?

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

Q.76 Which of the following is INCORRECTLY matched related to the excretory system of humans?

- Ans**
- ☒ 1. Ureter - a pair
 - ☒ 2. Urethra - a pair
 - ☒ 3. Kidney - a pair
 - ☒ 4. Urinary bladder - unpaired

Q.77 Which products are formed in the chlor-alkali process when electricity is passed through an aqueous sodium chloride solution?



- Ans**
- ☒ 1. $\text{NaCl} + \text{H}_2$
 - ☒ 2. $\text{NaHCO}_3 + \text{Cl}_2$
 - ☒ 3. $\text{NaOH} + \text{H}_2 + \text{Cl}_2$
 - ☒ 4. $\text{H}_2 + \text{O}_2$

Q.78 Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

YTL, QLD, IDV, AVN, ?

- Ans**
- ☒ 1. SNG
 - ☒ 2. SMF
 - ☒ 3. SMG
 - ☒ 4. SNF

Q.79 Which of the following equations is true, when two objects A and B of masses M and m are separated by a distance d, F is the force of attraction between them and G is the universal gravitational constant?

- Ans**
- ☒ 1. $F = G \frac{M \times m}{d}$
 - ☒ 2. $F = G \frac{1}{d^2}$
 - ☒ 3. $F = G \frac{M \times m}{d^2}$
 - ☒ 4. $F = G \frac{M}{d^2}$

Q.80 Which of the following metals reacts with very dilute nitric acid to evolve hydrogen gas?

- Ans**
- ☒ 1. Mn
 - ☒ 2. Fe
 - ☒ 3. Zn
 - ☒ 4. Al

Q.81 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 # 2 & % 4 6 @ 8 S 7 1 * £ 5 (Right)

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

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

Q.82 The weight of an object on the Moon is _____

- Ans
- ☒ 1. less than the weight on the earth
 - ☐ 2. equal to the weight on the earth
 - ☐ 3. may be greater than or less than depending on the density of the object
 - ☐ 4. greater than the weight on the earth

Q.83 Which of the following is a connective tissue?

- Ans
- ☐ 1. Muscle
 - ☐ 2. Cuboidal epithelium
 - ☒ 3. Blood
 - ☐ 4. Columnar epithelium

Q.84 Which statement is NOT true for magnetic field lines?

- Ans
- ☐ 1. The relative strength of the magnetic field is shown by the degree of closeness of the field lines.
 - ☐ 2. No two field lines are found to cross each other.
 - ☐ 3. Inside the magnet, the direction of field lines is from its south pole to its north pole.
 - ☒ 4. Magnetic field lines are not closed curves.

Q.85 The Finance Minister launched Nari Shakti branches of which bank to empower women entrepreneurs in November 2024?

- Ans
- ☐ 1. SBI
 - ☐ 2. HDFC Bank
 - ☒ 3. Union Bank
 - ☐ 4. PNB

Q.86 What is the colour of the flame when magnesium burns in air?

- Ans
- ☐ 1. Green
 - ☐ 2. Red
 - ☐ 3. Pink
 - ☒ 4. White

Q.87 D, E, F, G, L, M and N are sitting around a circular table facing the centre. Only two people sit between M and N when counted from the right of M. Only two people sit between N and E when counted from the right of N. Only three people sit between M and F when counted from the right of M. D sits to the immediate left of G. Who sits third to the left of L?

- Ans
- ☐ 1. N
 - ☒ 2. G
 - ☐ 3. D
 - ☐ 4. M

Q.88 One year ago, the ratio of the ages of Sara and Dipti was 3 : 4, respectively. Four years hence, this ratio would become 4 : 5. The present age of Sara is:

- Ans**
- ☐ 1. 15 years
 - ☐ 2. 19 years
 - ☐ 3. 12 years
 - ☒ 4. 16 years

Q.89 Which of the following is/are NOT a parasitic organism?

- Ans**
- ☒ 1. Amoeba
 - ☐ 2. Ticks
 - ☐ 3. Cuscuta
 - ☐ 4. Lice

Q.90 Select the INCORRECT pair.

- Ans**
- ☐ 1. Plastic glass – non-biodegradable
 - ☐ 2. Vegetable – biodegradable
 - ☐ 3. Paper cup – biodegradable
 - ☒ 4. Kulhad – non-biodegradable

Q.91 Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

RMK, UOL, XQM, ASN, ?

- Ans**
- ☒ 1. DUO
 - ☐ 2. EUO
 - ☐ 3. DUP
 - ☐ 4. DQO

Q.92 In a row of 45 students, facing north, Kevin is 16th from the right end. If Luther is 10th to the left of Kevin, what is Luther's position from the left end of the row?

- Ans**
- ☐ 1. 23rd
 - ☒ 2. 20th
 - ☐ 3. 22nd
 - ☐ 4. 21st

Q.93 Vacuoles are present mainly of large size in _____.

- Ans**
- ☐ 1. animal cells
 - ☐ 2. both plant cells and animal cells
 - ☒ 3. plant cells
 - ☐ 4. bacteria

Q.94 Prime Minister Narendra Modi inaugurated PARAM Rudra Supercomputer at which of the following places in September 2024?

- Ans**
- ☒ 1. Kolkata
 - ☐ 2. Hyderabad
 - ☐ 3. Chennai
 - ☐ 4. Bengaluru

Q.95 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. QU-RT
 - ☒ 2. LP-MQ
 - ☐ 3. FJ-GI
 - ☐ 4. IM-JL

Q.96 If $3 : 6 :: 6 : a$, what is the value of a ?

- Ans**
- ☒ 1. 12
 - ☐ 2. 18
 - ☐ 3. 16
 - ☐ 4. 36

Q.97 Which of the following is treated with dry slaked lime $[\text{Ca}(\text{OH})_2]$ to make bleaching powder?

- Ans**
- ☒ 1. Chlorine gas
 - ☐ 2. Hydrogen gas
 - ☐ 3. Carbon dioxide gas
 - ☐ 4. Water

Q.98 Town I is to the east of Town X. Town L is to the west of Town X. Town N is to the north of Town L. Town P is to the north-east of Town L. Town P is to the east of Town N. Town I is to the south-west of Town P. What is the position of Town P with respect to Town X?

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

Q.99 The average temperature for Monday, Tuesday, Wednesday, and Thursday was 48°C , and for Tuesday, Wednesday, Thursday, and Friday was 46°C . If the temperature on Monday was 42°C , find the temperature on Friday.

- Ans**
- ☐ 1. 36°C
 - ☐ 2. 40°C
 - ☐ 3. 38°C
 - ☒ 4. 34°C

Q.100

The work done by a constant force acting on a body is _____.

Ans

✓ 1. either positive or negative

✗ 2. always zero

✗ 3. always negative

✗ 4. always positive

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