



# रेल भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS



## सी ई एन आर आर बी - ०२/२०२४ - CEN RRB - 02/2024

Test Date	23/12/2024
Test Time	12:45 PM - 2:15 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 Union Budget 2024-25 outlines a comprehensive strategy to achieve 'Viksit Bharat' by focusing on \_\_\_\_\_ key priorities that aim to create abundant opportunities for all citizens. Together, these initiatives are designed to propel India towards a developed nation status.

- Ans**
- ☒ 1. five
  - ☒ 2. eight
  - ☒ 3. nine
  - ☒ 4. ten

**Q.2** In a certain code language, 'WIFE' is coded as '1852' and 'FIRE' is coded as '7258'. What is the code for 'R' in the given code language?

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

**Q.3** Find the fourth proportional of 15, 25 and 12.

- Ans**
- ☒ 1. 20
  - ☒ 2. 30
  - ☒ 3. 15
  - ☒ 4. 25

**Q.4** To move an object on a horizontal table, one needs to apply:

- Ans**
- ☒ 1. unbalanced force
  - ☒ 2. an equal amount of perpendicular forces on the object in both upward and downward directions
  - ☒ 3. balanced force
  - ☒ 4. only a single force perpendicular to the object

**Q.5** What is the primary difference between the particles of a solid and those of a gas?

- Ans**
- ☐ 1. Solid particles have more energy than gas particles.
  - ☐ 2. Solid particles are made of different elements than gas particles.
  - ☒ 3. Solid particles are more closely packed than gas particles.
  - ☐ 4. Solid particles move more freely than gas particles.

**Q.6** JGLI is related to NKPM in a certain way based on the English alphabetical order. In the same way, PMRO is related to TQVS. To which of the following options is MJOL related, following the same logic?

- Ans**
- ☐ 1. QNPS
  - ☐ 2. NQPS
  - ☒ 3. QNSP
  - ☐ 4. NQSP

**Q.7** Study the following chart and answer the question that follows.



What is the total exports by Company X and Y in months of January and March?

- Ans**
- ☐ 1. 385 crore
  - ☐ 2. 375 crore
  - ☐ 3. 365 crore
  - ☒ 4. 380 crore

**Q.8** The value of  $\frac{11}{18} + \frac{7}{-27}$  is:

- Ans**
- ☐ 1.  $-\frac{19}{27}$
  - ☐ 2.  $-\frac{19}{54}$
  - ☒ 3.  $\frac{19}{54}$
  - ☐ 4.  $\frac{19}{27}$

**Q.9** For a candidate to clear an examination, he/she must score 55% marks. If he/she gets 120 marks and fails by 78 marks, the total marks of the examination is:

- Ans**
- ☐ 1. 300
  - ☐ 2. 320
  - ☐ 3. 400
  - ☒ 4. 360

**Q.10** Which hormone is present in greater concentration in areas of rapid cell division and promote cell division?

- Ans**
- ☐ 1. Absciscic acid
  - ☐ 2. Gibberellins
  - ☒ 3. Cytokinin
  - ☐ 4. Auxins

**Q.11** At what rate (in percentage) per annum on simple interest will a sum of money double itself in 8 years?

- Ans**
- ☐ 1. 6.25%
  - ☐ 2. 2.5%
  - ☐ 3. 5.6%
  - ☒ 4. 12.5%

**Q.12** Which of the following statements is correct related to male reproductive system?

- Ans**
- ☐ 1. Testes are located in the abdominal cavity.
  - ☐ 2. Formation of sperm takes place in seminal vessel.
  - ☒ 3. Testes secrete testosterone hormone.
  - ☐ 4. Sperm formation requires higher temperature than the normal body temperature.

**Q.13** 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 1 1 5 7 8 0 4 5 9 9 4 6 9 4 1 6 6 8 1 4 3 5 0 2 1 9 8 6 1 (Right)

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

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

**Q.14** What is the value of power if a man does 50 J of work in 10 s ?

- Ans**
- ☐ 1. 0.5 W
  - ☐ 2. 50 W
  - ☐ 3. 500 W
  - ☒ 4. 5 W

**Q.15** The number of solutions to the pair of linear equations  $5x - 3y = 7$  and  $7x + 4y = 18$  is:

- Ans**
- ☐ 1. three
  - ☒ 2. one
  - ☐ 3. infinite
  - ☐ 4. none

**Q.16** What is the full form of CNG and LPG, respectively?

- Ans**
- ☐ 1. Compressed Neutral Gas and Liquefied Pressured Gas
  - ☒ 2. Compressed Natural Gas and Liquefied Petroleum Gas
  - ☐ 3. Compressed Natural Gas and Liquefied Pressured Gas
  - ☐ 4. Compressed Neutral Gas and Liquefied Petroleum Gas

**Q.17** The carbohydrates which are not used immediately are stored in the form of \_\_\_\_\_, which serves as the internal energy reserve to be used as and when required by the plant.

- Ans**
- ☐ 1. glucose
  - ☐ 2. cellulose
  - ☒ 3. starch
  - ☐ 4. glycogen

**Q.18** As per the Hurun India rich list 2024, who replaced Reliance Industries chairman Mukesh Ambani?

- Ans**
- ☐ 1. Nikesh Arora
  - ☒ 2. Gautam Adani
  - ☐ 3. Nithin Kamath
  - ☐ 4. Jayshree Ullal

**Q.19** What historic achievement did Manu Bhaker accomplish at the 2024 Paris Olympics?

- Ans**
- ☐ 1. First Indian female shooter to win an Olympic gold
  - ☐ 2. First Indian to win an Olympic medal in shooting
  - ☒ 3. First athlete of independent India to win two Olympic medals in a single edition
  - ☐ 4. First athlete to win medals in both individual and team events

**Q.20** Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

GIN, JLQ, MOT, PRW, ?

- Ans**
- ☐ 1. ZUS
  - ☐ 2. SZU
  - ☐ 3. ZSU
  - ☒ 4. SUZ

**Q.21** Select the INCORRECT pair.

- Ans**
- ☐ 1. Rice – digested in our body
  - ☐ 2. Protein – digested in our body
  - ☐ 3. Plastic – does not breakdown by the action of bacteria
  - ☒ 4. Coal – digested in our body

**Q.22** Which body part in the human body is composed of stratified squamous epithelium?

- Ans**
- ☐ 1. Oesophagus
  - ☒ 2. Skin
  - ☐ 3. Lining of the kidney tubules
  - ☐ 4. Lining of the intestine



**Q.23** According to the Bohr's model, what is the maximum number of electrons for the second energy level?

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

**Q.24** Which of the following is a property of liquids?

- Ans**
- ☐ 1. Liquids are rigid.
  - ☐ 2. Liquids have fixed shape.
  - ☐ 3. Liquids have no fixed volume.
  - ☒ 4. The rate of diffusion of liquids is higher than that of solids.

**Q.25** Modes of reproduction in various organisms depend on the \_\_\_\_\_.

- Ans**
- ☐ 1. respiratory pigments of the organisms
  - ☐ 2. nervous system of the organisms
  - ☐ 3. nutritive strategy of the organisms
  - ☒ 4. body design of the organisms

**Q.26** The sum of the squares of the sides of a rhombus is  $1600 \text{ cm}^2$ . What is the perimeter of the rhombus?

- Ans**
- ☒ 1. 80 cm
  - ☐ 2. 40 cm
  - ☐ 3. 20 cm
  - ☐ 4. 60 cm

**Q.27** A tap can fill a tank in 6 hours. After half the tank is filled, three more similar taps are opened. What is the total time taken to fill the tank completely?





- Ans**
- ☐ 1. 4 hours
  - ☐ 2. 3 hours 15 min
  - ☐ 3. 4 hours 15 min
  - ☒ 4. 3 hours 45 min

**Q.28** Cotton clothes are preferred in summer season because:

- Ans**
- ☐ 1. cotton does not absorb sweat
  - ☐ 2. cotton is unable to expose sweat to the atmosphere for evaporation
  - ☒ 3. cotton is a good absorber of water and exposes sweat to atmosphere for evaporation
  - ☐ 4. cotton is a bad absorber of water and exposes sweat to atmosphere for evaporation

**Q.29** Consider the following statements about a mixture and determine which of the statements is/are correct.

1. A mixture has a variable composition.
2. In compounds, the composition of each new substance is always fixed.
3. A mixture shows the properties of the constituent substances.

**Ans**  1. Only 1 and 2  
 2. 1, 2 and 3  
 3. Only 1  
 4. Only 2 and 3





**Q.30** As of October 2024 , India is the home to \_\_\_\_ UNESCO World Heritage Sites.

**Ans**  1. 53  
 2. 33  
 3. 63  
 4. 43





**Q.31** 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 : 87 :: 14 : Y

**Ans**  1. X = 8, Y = 154  
 2. X = 8, Y = 153  
 3. X = 9, Y = 153  
 4. X = 9, Y = 155

**Q.32** The average of two numbers is M. If one number is N, then the other number is:

**Ans**  1. 2M  
 2. M - N  
 3. 2N  
 4. 2M - N

**Q.33** The term \_\_\_\_\_ refers to the densely packed kidney filtration unit.

**Ans**  1. Neurone  
 2. Nephron  
 3. Capillary  
 4. Glomerulus

Q.34

In a certain code language,

$A + B$  means 'A is the wife of B',

$A - B$  means 'A is the brother of B',

$A \times B$  means 'A is the father of B',

and  $A \div B$  means 'A is the sister of B'.

How is P related to T if ' $P + Q - R \times S \div T$ '?

Ans

- ☐ 1. Mother's brother's wife
- ☐ 2. Father's sister
- ☒ 3. Father's brother's wife
- ☐ 4. Mother

Q.35

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.)

$X : 72 :: 22 : Y$

Ans

- ☐ 1.  $X = 18, Y = 96$
- ☒ 2.  $X = 12, Y = 132$
- ☐ 3.  $X = 18, Y = 132$
- ☐ 4.  $X = 12, Y = 110$

Q.36

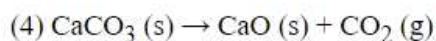
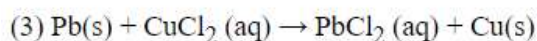
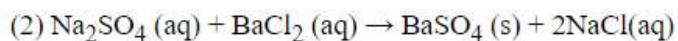
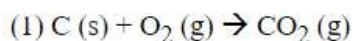
Which of the following transports food, carbon dioxide and nitrogenous wastes in a dissolved form?

Ans

- ☐ 1. Lymph
- ☒ 2. Plasma
- ☐ 3. Blood platelets
- ☐ 4. Red blood corpuscles

Q.37

Which of the following is/are the example/s of double displacement reaction?



Ans

- ☐ 1. 1 and 4 only
- ☐ 2. 1, 2 and 3 only
- ☒ 3. Only 2
- ☐ 4. 2 and 3 only

**Q.38** Many nerve fibres are bound together by which tissue and make up a nerve?

- Ans**
- ☐ 1. Vascular tissue
  - ☒ 2. Connective tissue
  - ☐ 3. Epithelial tissue
  - ☐ 4. Meristematic tissue

**Q.39** Pipe A is 3 times faster than pipe B. Both pipes together fill a tank in 36 min. How much time will pipe A alone take to fill the tank?

- Ans**
- ☐ 1. 156 min
  - ☐ 2. 80 min
  - ☒ 3. 48 min
  - ☐ 4. 100 min

**Q.40** The pollen needs to be transferred from the stamen to the stigma. If this transfer of pollen occurs in the same flower, this phenomenon is known as:

- Ans**
- ☐ 1. spore formation
  - ☒ 2. self-pollination
  - ☐ 3. cross-pollination
  - ☐ 4. fertilisation

**Q.41** The value of  $\tan A + \frac{1}{\tan A}$  is:

- Ans**
- ☐ 1.  $\operatorname{cosec} A \cot A$
  - ☒ 2.  $\operatorname{cosec} A \sec A$
  - ☐ 3.  $\cos A \sec A$
  - ☐ 4.  $\operatorname{cosec} A \sin A$

**Q.42** An amount is distributed among A, B and C in the ratio of 5: 7: 15. If B's share is ₹1,400 out of the total amount, then the total amount is:

- Ans**
- ☐ 1. ₹8,100
  - ☐ 2. ₹4,200
  - ☐ 3. ₹2,700
  - ☒ 4. ₹5,400

**Q.43** In this question, a statement is followed by two courses of action, 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: The bee population in the region has been steadily declining due to the widespread use of pesticides in agriculture.

Courses of Action:

- I. Introduce regulations that restrict the use of certain pesticides during peak pollination seasons.
- II. Establish urban beekeeping programmes to artificially boost the bee population and pollination efforts.

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



**Q.44** If the diameter and the height of a cylinder are 10 cm and 10.5 cm, respectively, then using  $\pi = \frac{22}{7}$ , find the volume of the cylinder.

- Ans**
- ☒ 1.  $825 \text{ cm}^3$
  - ☐ 2.  $985 \text{ cm}^3$
  - ☐ 3.  $785 \text{ cm}^3$
  - ☐ 4.  $888 \text{ cm}^3$

**Q.45** At what rate (in percentage) per annum will a sum of money double itself in 16 years on simple interest?

- Ans**
- ☐ 1. 12.5%
  - ☐ 2. 5.6%
  - ☒ 3. 6.25%
  - ☐ 4. 2.5%

**Q.46** Six people—Adam, Brad, Clara, David, Emily and Farah—are sitting in a straight line, facing north. Only one person sits to the left of Clara. Only one person sits between Clara and Brad. David sits second to the right of Emily. Adam is neither an immediate neighbour of Clara nor sits at the extreme end of the line.

Q. Who sits at the extreme right end of the line?

- Ans**
- ☐ 1. David
  - ☐ 2. Emily
  - ☐ 3. Brad
  - ☒ 4. Farah

**Q.47** Which of the following terms defines the ability of metals to be drawn into thin wires?

- Ans**
- ☒ 1. Ductility
  - ☐ 2. Neither malleability nor ductility
  - ☐ 3. Both malleability and ductility
  - ☐ 4. Malleability

**Q.48** Chami Murmu, an Indian environmental activist, was awarded the Padma Shri in 2024 for her work in founding the \_\_\_\_\_, which has planted over 3 million trees in Jharkhand.

- Ans**
- ☐ 1. Green India Mission
  - ☐ 2. Prakriti Raksha Abhiyan
  - ☒ 3. Sahayogi Mahila Bagraisai
  - ☐ 4. Van Mahotsav Foundation

**Q.49** Seven people, A, B, D, L, X, Y and Z, are sitting in a row, facing north. Only five people sit between B and L. Z sits to the immediate left of L. Only one person sits between Z and D. A sits at some place to the left of Y but at some place to the right of X. Who sits third from the left end of the row?

- Ans**
- ☐ 1. Y
  - ☐ 2. X
  - ☐ 3. D
  - ☒ 4. A

**Q.50** One atmosphere is equal to \_\_\_\_\_.

- Ans**
- ☒ 1.  $1.01 \times 10^5$  Pa
  - ☐ 2.  $1.01 \times 10^6$  Pa
  - ☐ 3.  $1.01 \times 10^{-5}$  Pa
  - ☐ 4.  $1.01 \times 10^{-6}$  Pa

**Q.51** Why did the Government of India remove the 'monument of national importance' status from the statue of John Nicholson?

- Ans**
- ☐ 1. It was considered irrelevant to India's independence struggle.
  - ☐ 2. The statue was in a deteriorating condition.
  - ☒ 3. It was linked to British colonial legacy.
  - ☐ 4. The statue was found to be historically inaccurate.

**Q.52** In a certain code language, 'over the top' is written as 'ak ot yh' and 'the rock is ' is coded as 'ot gb tk '. How is 'the' coded in the given language?

- Ans**
- ☐ 1. sy
  - ☒ 2. ot
  - ☐ 3. ql
  - ☐ 4. mr

**Q.53** Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

TX-VS-WY

UY-WT-XZ

- Ans**
- ☒ 1. OS-QN-RT
  - ☐ 2. IM-KH-LO
  - ☐ 3. LP-NK-OR
  - ☐ 4. FJ-HE-IL

**Q.54** The third edition of the joint military exercise 'AUSTRALIND' is being conducted between the armies of which two countries?

- Ans**
- ☐ 1. India and Japan
  - ☒ 2. India and Australia
  - ☐ 3. India and New Zealand
  - ☐ 4. India and Singapore

**Q.55** Simplify the given expression.

$$5 + 9 - 9 \div 3 \times 4$$

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

**Q.56** Which of the following are small-sized in animal cells while in plant cells these are very large in size?

- Ans**
- ☒ 1. Vacuoles
  - ☐ 2. Lysosomes
  - ☐ 3. Golgi apparatus
  - ☐ 4. Plastids

**Q.57** 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 car is a bus.

No bus is a plane.

Conclusions:

(I) No bus is a car.

(II) No car is a plane.

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

**Q.58** Among all the seven-coloured lights, which colour deviates the most after falling on a prism?

- Ans**
- ☐ 1. Yellow
  - ☐ 2. Indigo
  - ☒ 3. Violet
  - ☐ 4. Red

**Q.59**  $(x - y)(x + y)(x^2 + y^2)(x^4 + y^4)$  is equal to :

- Ans**
- ☐ 1.  $x^{16} - y^{16}$
  - ☒ 2.  $x^8 - y^8$
  - ☐ 3.  $x^{16} + y^{16}$
  - ☐ 4.  $x^8 + y^8$

**Q.60** Simplify the given expression.

$$3 + 6 \times (5 + 4) \div 3 - 7$$

- Ans**
- ☐ 1. 11
  - ☒ 2. 14
  - ☐ 3. 15
  - ☐ 4. 16

**Q.61** Which of the following statements is/are correct related to transportation?

- (i) Arteries are the vessels which carry blood away from the heart to various organs of the body.
- (ii) The arteries have thin and elastic walls.
- (iii) Veins have valves that ensure that blood flows only in one direction.

**Ans**

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

**Q.62** Two trains 135 m and 155 m in length, respectively, are running in opposite directions, one at the rate of 80 km/h and the other at the rate of 65 km/h. In how much time will they be completely clear of each other from the moment they meet?

**Ans**

- ☐ 1. 7.5 sec
- ☐ 2. 6.8 sec
- ☐ 3. 6.5 sec
- ☒ 4. 7.2 sec

**Q.63** An organism simply splits into two equal halves during cell division. What is it known as?

**Ans**

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

**Q.64** In which of the following states was the 4<sup>th</sup> Asmita Khelo India National Judo League/Ranking Judo Tournament 2024-25 held?

**Ans**

- ☐ 1. Madhya Pradesh
- ☒ 2. Kerala
- ☐ 3. Karnataka
- ☐ 4. Jharkhand

**Q.65** Select the INCORRECT statement from the following options.

**Ans**

- ☐ 1. The kinetic energy of an object increases with the increase of its mass.
- ☒ 2. The kinetic energy is the energy possessed by an object due to its position.
- ☐ 3. The kinetic energy is the energy possessed by an object due to its motion.
- ☐ 4. The kinetic energy of an object increases with the increase of its velocity.

**Q.66** An object weighs 60 N when measured on the Earth. What would be its weight when measured on the moon?  
(Given, acceleration due to gravity (g) of the moon is  $\frac{1}{6}$  th of the g of the earth)

**Ans**

- ☐ 1. 70 N
- ☒ 2. 10 N
- ☐ 3. 40 N
- ☐ 4. 60 N



**Q.67** Starting from rest, Raju attains a velocity of 24 m/s in a minute with his bicycle. The acceleration of the bicycle is:

- Ans**
- ☐ 1.  $0 \text{ m/s}^2$
  - ☐ 2.  $0.6 \text{ m/s}^2$
  - ☒ 3.  $0.4 \text{ m/s}^2$
  - ☐ 4.  $0.2 \text{ m/s}^2$

**Q.68** 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**
- ☐ 1. CEG
  - ☐ 2. JLN
  - ☒ 3. FUT
  - ☐ 4. TVX

**Q.69** How are three resistances  $3 \Omega$ ,  $4 \Omega$ , and  $6 \Omega$  connected in combination, so that their total resistance will be  $13 \Omega$ ?

- Ans**
- ☐ 1.  $3 \Omega$  in series with  $6 \Omega$  and  $4 \Omega$  in parallel
  - ☐ 2. All in parallel
  - ☒ 3. All in series
  - ☐ 4. Does not depend on any combination

**Q.70** While subtracting  $-2$  from  $-\frac{3}{10}$ , the resultant value is:

- Ans**
- ☒ 1.  $1\frac{7}{10}$
  - ☐ 2.  $1\frac{3}{10}$
  - ☐ 3.  $1\frac{4}{5}$
  - ☐ 4.  $1\frac{3}{5}$

**Q.71** Which of the following expressions gives the correct formula for mass by mass percentage of a solution?

- Ans**
- ☐ 1.  $((\text{Mass of solvent})/(\text{Mass of solution})) \times 100$
  - ☐ 2.  $((\text{Volume of solute})/(\text{Mass of solution})) \times 100$
  - ☐ 3.  $((\text{Mass of solute})/(\text{Volume of solution})) \times 100$
  - ☒ 4.  $((\text{Mass of solute})/(\text{Mass of solution})) \times 100$

**Q.72** Which of the following reactions is an example of decomposition reaction?

- Ans**
- ☐ 1. Burning of natural gas
  - ☐ 2. Formation of water from  $\text{H}_2(\text{g})$  and  $\text{O}_2(\text{g})$
  - ☐ 3. Burning of coal
  - ☒ 4. Silver chloride turns grey in sunlight

**Q.73** The smallest 3-digit natural number that is completely divisible by 8 and 12 is:

- Ans**
- ☐ 1. 144
  - ☐ 2. 108
  - ☐ 3. 124
  - ☒ 4. 120

**Q.74** Refer to the given number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 2 % 8 4 5 3 @ # 1 \* 5 7 & 9 + Ω 6 £ (Right)

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

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

**Q.75** Which of the following points always lie(s) on the principal axis of a spherical mirror?

- i)Principal Focus
- ii)Point of incidence
- iii)Pole

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

**Q.76** 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 apples are mangoes.

Some mangoes are lemons.

Conclusions:

(I) At least some mangoes are apples.

(II) Some apples are lemons.

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

**Q.77** 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**
- ☐ 1. EZU
  - ☒ 2. FAW
  - ☐ 3. WRM
  - ☐ 4. XSN

**Q.78** If a train travelling with a velocity of 20 m/s undergoes a uniform acceleration of  $4 \text{ m/s}^2$ , what is the value of its velocity in 5 seconds?

- Ans**
- ☒ 1. 40 m/s
  - ☐ 2. 80 m/s
  - ☐ 3. 16 m/s
  - ☐ 4. 60 m/s

**Q.79** Electromagnetic Induction was discovered by:

- Ans**
- ☐ 1. Einstein
  - ☐ 2. Edison
  - ☒ 3. Faraday
  - ☐ 4. Newton

**Q.80** Seven boxes, A, B, C, D, E, F and G, are kept one over the other but not necessarily in the same order. Only C is kept above D. Only two boxes are kept between D and F. Only G is kept below A. B is not kept immediately above F. Which box is kept fourth from the top ?

- Ans**
- ☐ 1. B
  - ☒ 2. E
  - ☐ 3. D
  - ☐ 4. H

**Q.81** What will come in the place of '?' in the following equation, if '-' and 'x' are interchanged and '+' and '÷' are interchanged?

$$23 \times 13 - 7 \div 14 + 7 = ?$$

- Ans**
- ☐ 1. -56
  - ☐ 2. -76
  - ☐ 3. -92
  - ☒ 4. -66

**Q.82** Select the correct equation(s) that relate(s) the final and initial velocity of a freely falling object with respect to time.

(A)  $s = ut + 2at^2$

(B)  $v = u + \frac{1}{2}at$

(C)  $(v - u) = at$

- Ans**
- ☐ 1. Only (A)
  - ☐ 2. (A) and (B)
  - ☐ 3. (B) and (C)
  - ☒ 4. Only (C)

**Q.83** Which of the following tissues is present in stems, around vascular bundles, in the veins of leaves and the hard covering of seeds and nuts?

- Ans**
- ☐ 1. Apical meristem
  - ☐ 2. Parenchyma
  - ☒ 3. Sclerenchyma
  - ☐ 4. Epidermis

**Q.84** Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 2 9 + % 8 4 5 3 @ S 7 & Ω 6 # 1 \* £ (Right)

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

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

**Q.85** If the mode of a data exceeds its mean by 16.2, then the mode exceeds the median by \_\_\_\_\_. (Use empirical formula to find the answer.)

- Ans**
- ☐ 1. 12.4
  - ☒ 2. 10.8
  - ☐ 3. 8.25
  - ☐ 4. 10.2

**Q.86** A retailer permits a trade discount of 15%, followed by a cash discount of 20%, on an article. The net percentage of discount is:

- Ans**
- ☒ 1. 32%
  - ☐ 2. 31%
  - ☐ 3. 33%
  - ☐ 4. 34%

**Q.87** If an object with a mass of 0.1 kg moves with a uniform velocity of  $2\text{ms}^{-1}$ , its kinetic energy is \_\_\_\_\_.

- Ans**
- ☐ 1. 0.1 joule
  - ☐ 2. 0.4 joule
  - ☐ 3. 0.05 joule
  - ☒ 4. 0.2 joule

**Q.88** Out of an earning of ₹720, Rama spends 65%. How much does she save?

- Ans**
- ☐ 1. ₹316
  - ☒ 2. ₹252
  - ☐ 3. ₹350
  - ☐ 4. ₹390

**Q.89** Who took the oath as the new Chief Minister of Haryana in the Assembly Election 2024?

- Ans**
- ☐ 1. Shri Om Prakash Chautala
  - ☐ 2. Shri Dushyant Chautala
  - ☐ 3. Shri Manohar Lal Khattar
  - ☒ 4. Shri Nayab Singh Saini

**Q.90** When the selling price of a TV is ₹18,700, the shopkeeper incurs a loss of 15%. What should be the selling price of that TV so as to gain 15%?

- Ans**
- ☐ 1. ₹43,200
  - ☒ 2. ₹25,300
  - ☐ 3. ₹19,800
  - ☐ 4. ₹34,200



**Q.91** 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?

23 D 18 C 3 B 5 A 17 = ?

- Ans**
- ☐ 1. 26
  - ☐ 2. 46
  - ☒ 3. 36
  - ☐ 4. 56

**Q.92** Silver ornaments become black after some time because silver reacts with \_\_\_\_\_ present in the air.

- Ans**
- ☐ 1. oxygen
  - ☐ 2. nitrogen
  - ☒ 3. sulphur
  - ☐ 4. carbon dioxide

**Q.93** Which of the following options should come in place of the question mark (?) in the given series to make it logically complete?

859, 768, 677, 586, 495, ?

- Ans**
- ☐ 1. 388
  - ☐ 2. 426
  - ☒ 3. 404
  - ☐ 4. 462

**Q.94** Anu is two years older than Kanu, who is twice as old as Tanu. If the total of their ages is 32, then what is the difference in age of Anu and Tanu?

- Ans**
- ☐ 1. 14 years
  - ☒ 2. 8 years
  - ☐ 3. 7 years
  - ☐ 4. 12 years

**Q.95** PQRS is a trapezium in which  $QR \parallel PS$  and  $PR = RS$ . If  $\angle PQR = 96^\circ$  and  $\angle QPR = 34^\circ$ , then what is the measure of  $\angle PRS$ ?

- Ans**
- ☐ 1.  $75^\circ$
  - ☐ 2.  $70^\circ$
  - ☒ 3.  $80^\circ$
  - ☐ 4.  $65^\circ$

**Q.96** The Lunar Polar Exploration Mission (LUPEX) is a planned collaborative lunar mission involving which two space agencies?

- Ans**
- ☐ 1. NASA and ESA
  - ☒ 2. ISRO and JAXA
  - ☐ 3. ISRO and NASA
  - ☐ 4. JAXA and CNSA

**Q.97**  $C_2H_2$ ,  $C_2H_4$ , and  $C_2H_6$  belong to which group of hydrocarbons?

- Ans**
- ☐ 1. Alkane, alkyne, and alkene hydrocarbons, respectively
  - ☐ 2. Alkane, alkene, and alkyne hydrocarbons, respectively
  - ☐ 3. Alkene, alkyne, and alkane hydrocarbons, respectively
  - ☒ 4. Alkyne, alkene, and alkane hydrocarbons, respectively

**Q.98** The focal length of a spherical mirror is 12 cm, then the radius of curvature of this mirror will be:

- Ans**
- ☐ 1. 3cm
  - ☒ 2. 24cm
  - ☐ 3. 2cm
  - ☐ 4. 6cm

**Q.99** Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

FJN, IMQ, LPT, OSW, ?

- Ans**
- ☐ 1. SUY
  - ☒ 2. RVZ
  - ☐ 3. RUY
  - ☐ 4. RUZ

**Q.100** Pranay starts from Point A and drives 45 km towards North. He then takes a right turn, drives 35 km, turns right and drives 75 km. He then takes a right turn and drives 25 km. He takes a final right turn, drives 30 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?

(All turns are 90 degree turns only unless otherwise specified.)

- Ans**
- ☐ 1. 10 km towards North
  - ☐ 2. 10 km towards South
  - ☐ 3. 10 km towards East
  - ☒ 4. 10 km towards West