



रेल भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सी ई एन आर आर बी - ०३/२०२४ - CEN RRB - 03/2024



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|-----------|----------------------|
| Test Date | 18/12/2024 |
| Test Time | 4:30 PM - 6:00 PM |
| Subject | RRB JE DMS CMA CS MS |

* 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 JE, DMS, CMA, CS, MS CBT-1

Q.1 Evaluate: $33 \div 9 \times 3 - 2 \times 3$

Ans 1. 8

2. 5

3. 7

4. 4

Q.2 Refer to the following number and symbol series and answer the question that follows.
Counting to be done from left to right only.
(Left) 3 & ^ 5 7 # 9 % 8 * 4 < 1 \$ 2 @ * 6 (Right)
How many such symbols are there which are immediately preceded by a number and also immediately followed by another number?

Ans 1. 5

2. 4

3. 3

4. 2

Q.3 What should come in place of the question mark (?) in the given series based on the English alphabetical order?

HFC JHE LJG NLI ?

Ans 1. PMK

2. PNK

3. PML

4. PNL

Q.4 The Indigo Rebellion took place in _____ during 1859-1860.

Ans 1. Madras

2. Bengal

3. Punjab

4. Bombay

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| Q.5 | Fleming's Left-Hand Rule is used to determine _____. |
| Ans | <input type="checkbox"/> 1. the amount of current flowing through the conductor |
| | <input type="checkbox"/> 2. the strength of the magnetic field |
| | <input checked="" type="checkbox"/> 3. the direction of force on a current-carrying conductor |
| | <input type="checkbox"/> 4. the magnitude of the force on a current-carrying conductor |
| Q.6 | 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 | <input type="checkbox"/> 1. IEB |
| | <input type="checkbox"/> 2. UQN |
| | <input checked="" type="checkbox"/> 3. ZWU |
| | <input type="checkbox"/> 4. NJG |
| Q.7 | Tarun ranked 21 st from the top and 12 th from the bottom in his class. How many students are there in his class? |
| Ans | <input type="checkbox"/> 1. 31 |
| | <input checked="" type="checkbox"/> 2. 32 |
| | <input type="checkbox"/> 3. 33 |
| | <input type="checkbox"/> 4. 34 |
| Q.8 | Seven people, W, X, Y, Z, E, F and G, are sitting in a row, facing north. Only two people sit to the right of Y. Only two people sit between Y and F. Only two people sit between E and W. W sits to the immediate left of Y. Z sits to the immediate right of X. Who sits at the third position from the left end of the row? |
| Ans | <input type="checkbox"/> 1. W |
| | <input type="checkbox"/> 2. Z |
| | <input type="checkbox"/> 3. Y |
| | <input checked="" type="checkbox"/> 4. G |
| Q.9 | The Pala King of Bengal, Dharamapala was defeated by which of the following Rashtrakuta kings? |
| Ans | <input type="checkbox"/> 1. Krishna I |
| | <input type="checkbox"/> 2. Indra III |
| | <input type="checkbox"/> 3. Govinda III |
| | <input checked="" type="checkbox"/> 4. Dhruva Dharavarsha |
| Q.10 | Which UNESCO World Heritage Site is a cave complex with stunning paintings and sculptures, located in Maharashtra? |
| Ans | <input type="checkbox"/> 1. Badami Caves |
| | <input type="checkbox"/> 2. Bhimbetka Caves |
| | <input type="checkbox"/> 3. Elephanta Caves |
| | <input checked="" type="checkbox"/> 4. Ajanta Caves |
| Q.11 | What was the venue of the 19 th annual meeting of the Secretaries of the Security Councils of the Shanghai Cooperation Organization (SCO)? |
| Ans | <input checked="" type="checkbox"/> 1. Astana, Kazakhstan |
| | <input type="checkbox"/> 2. Dhaka, Bangladesh |
| | <input type="checkbox"/> 3. New Delhi, India |
| | <input type="checkbox"/> 4. Kathmandu, Nepal |

Q.12 A man walks to a viewpoint and returns to the starting point by his car maintaining constant speed and thus takes a total time of 9 hours 15 minutes. He would have gained 2 hours by driving both ways. How long would it have taken for him to walk both ways with same walking speed?

- Ans**
- 1. 12 hours 30 minutes
 - 2. 11 hours 15 minutes
 - 3. 11 hours 45 minutes
 - 4. 10 hours 15 minutes

Q.13 What is the term for the band of colours produced when light is dispersed?

- Ans**
- 1. Absorption
 - 2. Refraction
 - 3. Spectrum
 - 4. Reflection

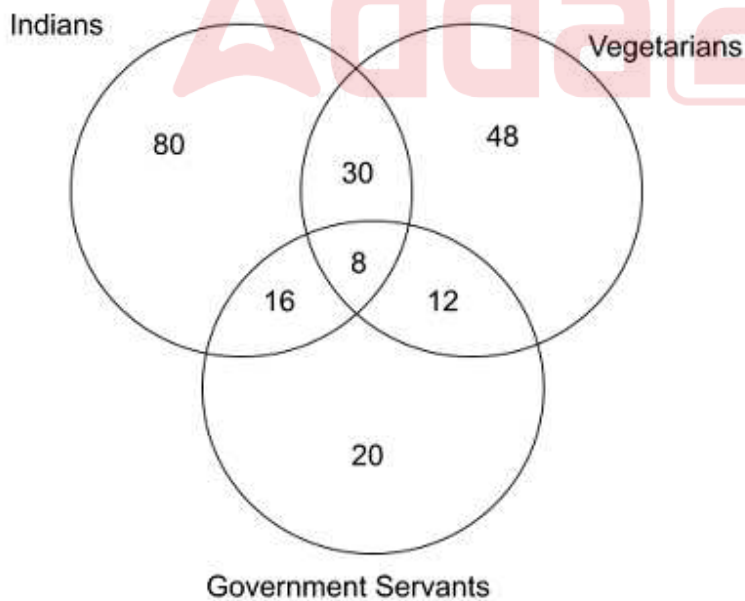
Q.14 The chemical name for 'Plaster of Paris' is:

- Ans**
- 1. calcium sulphate dihydrate
 - 2. calcium chloride hexahydrate
 - 3. calcium sulphate hemihydrate
 - 4. calcium chloride semihydrate

Q.15 AC is a chord of a circle. If X and Y are the two points, on the circumference of the circle, lying on the same side of the chord AC such that $\angle AXC = 58^\circ$, then what is the measure of $2\angle AYC$?

- Ans**
- 1. 58°
 - 2. 60°
 - 3. 120°
 - 4. 116°

Q.16 Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons.



How many such government servants are there who are Indians but not vegetarians?

- Ans**
- 1. 12
 - 2. 16
 - 3. 30
 - 4. 8

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| Q.17 | Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of ::? # : WZB :: BEG : % |
| Ans | <input checked="" type="checkbox"/> 1. # = EMJ, % = TWY <input checked="" type="checkbox"/> 2. # = FHJ, % = TWY <input checked="" type="checkbox"/> 3. # = EHJ, % = TWI <input checked="" type="checkbox"/> 4. # = EHJ, % = TWY |
| Q.18 | Which of the following is NOT a function of the Prime Minister in India? |
| Ans | <input checked="" type="checkbox"/> 1. Power to recommend for dissolution of the Parliament <input checked="" type="checkbox"/> 2. Appointment of Supreme Court judges <input checked="" type="checkbox"/> 3. Removal of Ministers <input checked="" type="checkbox"/> 4. Formation of the Council of Ministers |
| Q.19 | The average of seven consecutive odd numbers is 41. What is the smallest of these numbers? |
| Ans | <input checked="" type="checkbox"/> 1. 37 <input checked="" type="checkbox"/> 2. 33 <input checked="" type="checkbox"/> 3. 39 <input checked="" type="checkbox"/> 4. 35 |
| Q.20 | When hydrogen gas is passed through heated black copper (II) oxide, it: |
| Ans | <input checked="" type="checkbox"/> 1. reduces to form bluish copper solution <input checked="" type="checkbox"/> 2. oxidises to form bluish copper solution <input checked="" type="checkbox"/> 3. oxidises to form brownish copper metal <input checked="" type="checkbox"/> 4. reduces to form brownish copper metal |
| Q.21 | In a certain code language, 'pen pencil eraser' is coded as 'qp fq pw', 'pencil crayon box' is coded as 'bz er qp' and 'box pen board' is coded as 'er bq fg'. (All the codes are two-letter coded only.) What is the code for 'pencil' in that language? |
| Ans | <input checked="" type="checkbox"/> 1. bz <input checked="" type="checkbox"/> 2. qp <input checked="" type="checkbox"/> 3. fq <input checked="" type="checkbox"/> 4. er |
| Q.22 | In a certain code, 'butter milk ghee' is coded as 'dy la mt', 'biscuit ghee salad' is coded as 'bz qp la' and 'salad butter egg' is coded as 'st bz dy'. All the codes are two-letter codes only. What is ghee coded as? |
| Ans | <input checked="" type="checkbox"/> 1. mt <input checked="" type="checkbox"/> 2. la <input checked="" type="checkbox"/> 3. bz <input checked="" type="checkbox"/> 4. qp |

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| Q.23 | If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 1534876, what will be the sum of the digits which are third from the left and third from the right? |
| Ans | <input type="checkbox"/> 1. 8 <input type="checkbox"/> 2. 6 <input checked="" type="checkbox"/> 3. 10 <input type="checkbox"/> 4. 14 |
| Q.24 | According to clause (2) of Article 239A, any law created by the Parliament for Puducherry shall NOT be considered an amendment to the Constitution for the purposes of which Article? |
| Ans | <input type="checkbox"/> 1. Article 371 <input checked="" type="checkbox"/> 2. Article 368 <input type="checkbox"/> 3. Article 370 <input type="checkbox"/> 4. Article 356 |
| Q.25 | What does Family Planning aim at? |
| Ans | <input type="checkbox"/> 1. Preventing all pregnancies by recommending abortion <input type="checkbox"/> 2. Population growth <input checked="" type="checkbox"/> 3. Population control <input type="checkbox"/> 4. Increasing pollution |
| Q.26 | What is the average of all the natural numbers from 1 to 94? |
| Ans | <input type="checkbox"/> 1. 48 <input checked="" type="checkbox"/> 2. 47.5 <input type="checkbox"/> 3. 47 <input type="checkbox"/> 4. 48.5 |
| Q.27 | A milk man has 80 litres milk in one container and 68 litres milk in another container. Find the maximum capacity of a container, which can measure milk of either container exact number of times. |
| Ans | <input checked="" type="checkbox"/> 1. 4 litres <input type="checkbox"/> 2. 6 litres <input type="checkbox"/> 3. 5 litres <input type="checkbox"/> 4. 2 litres |
| Q.28 | If 'P' stands for '×', 'Q' stands for '÷', 'R' stands for '-' and 'S' stands for '+', what will come in place of the question mark (?) in the following equation? $35 S 49 R 6 P 3 P 2 S (72 Q 4) = ?$ |
| Ans | <input type="checkbox"/> 1. 50 <input checked="" type="checkbox"/> 2. 66 <input type="checkbox"/> 3. 84 <input type="checkbox"/> 4. 98 |
| Q.29 | Which of the following is a safety device used to prevent excessive current from flowing in electrical circuits? |
| Ans | <input type="checkbox"/> 1. Capacitor <input type="checkbox"/> 2. Resistor <input checked="" type="checkbox"/> 3. Fuse <input type="checkbox"/> 4. Transformer |

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| Q.30 | By selling an article at $\frac{2}{5}$ of its actual selling price, Ramesh incurs a loss of 16%. If he sells it at 86% of its actual selling price, then the profit percentage is: |
| Ans | <input checked="" type="checkbox"/> 1. 82.6% |
| | <input checked="" type="checkbox"/> 2. 83.4% |
| | <input checked="" type="checkbox"/> 3. 80.6% |
| | <input checked="" type="checkbox"/> 4. 81.8% |
| Q.31 | <p>A question is given, followed by two statements labelled I and II. Identify which of the statements is/are sufficient to answer the question.</p> |
| | <p>A, B, C, D and E are sitting in a straight line facing North. Who sits on the extreme right end?</p> |
| | <p>(I) Exactly three people sit between B and C.</p> |
| | <p>(II) A sits immediately to the left of B.</p> |
| Ans | <input checked="" type="checkbox"/> 1. Both Statements I and II put together are not sufficient to answer the question. |
| | <input checked="" type="checkbox"/> 2. Both Statements I and II put together (and not independently) are sufficient to answer the question. |
| | <input checked="" type="checkbox"/> 3. Data in Statement I alone is sufficient to answer the question, while data in Statement II is not. |
| | <input checked="" type="checkbox"/> 4. Data in Statement II alone is sufficient to answer the question, while data in Statement I is not. |
| Q.32 | <p>Refer to the following number, symbol series and answer the question. Counting to be done from left to right only.</p> |
| | <p>(Left) * 5 2 # # 2 2 7 & % 2 \$ & 1 3 \$ % \$ 5 4 \$ \$ (Right)</p> |
| | <p>How many such numbers are there each of which is immediately preceded by a number and also immediately followed by a number?</p> |
| Ans | <input checked="" type="checkbox"/> 1. 1 |
| | <input checked="" type="checkbox"/> 2. 3 |
| | <input checked="" type="checkbox"/> 3. 0 |
| | <input checked="" type="checkbox"/> 4. 2 |
| Q.33 | <p>When sodium sulphate solution is added to barium chloride solution, precipitate of _____ is formed.</p> |
| Ans | <input checked="" type="checkbox"/> 1. barium sulphate |
| | <input checked="" type="checkbox"/> 2. sodium chloride |
| | <input checked="" type="checkbox"/> 3. sodium hydrogen sulphate |
| | <input checked="" type="checkbox"/> 4. barium hydrogen sulphate |
| Q.34 | <p>Which of the following kinds of demand exists in the monopolistic competition for the product of an individual firm?</p> |
| Ans | <input checked="" type="checkbox"/> 1. Perfectly inelastic |
| | <input checked="" type="checkbox"/> 2. Relatively elastic |
| | <input checked="" type="checkbox"/> 3. Relatively inelastic |
| | <input checked="" type="checkbox"/> 4. Perfectly elastic |
| Q.35 | <p>An unsaturated carbohydrate that has a double bond is:</p> |
| Ans | <input checked="" type="checkbox"/> 1. C ₃ H ₄ |
| | <input checked="" type="checkbox"/> 2. C ₃ H ₆ |
| | <input checked="" type="checkbox"/> 3. C ₂ H ₂ |
| | <input checked="" type="checkbox"/> 4. C ₃ H ₈ |

Q.36 A trader lost 10% by selling a shirt for ₹850. He will gain x%' by selling it for ₹1530, the value of x is:

- Ans
- 1. 77
 - 2. 52
 - 3. 72
 - 4. 62

Q.37 Find the mean of the following frequency distribution.

| | | | | | |
|---|----|---|----|----|---|
| x | 5 | 6 | 15 | 9 | 8 |
| f | 10 | 5 | 8 | 10 | 9 |

- Ans
- 1. $7\frac{13}{21}$
 - 2. $8\frac{13}{21}$
 - 3. $9\frac{13}{21}$
 - 4. $6\frac{13}{21}$

Q.38 Who among the following was appointed as the Union Minister of Panchayati Raj in June 2024?

- Ans
- 1. Rajiv Ranjan Singh
 - 2. Piyush Goyal
 - 3. Shivraj Singh Chouhan
 - 4. Jagat Prakash Nadda

Q.39 Who was the scientist credited with the discovery of electromagnetic induction?

- Ans
- 1. Michael Faraday
 - 2. Nikola Tesla
 - 3. Isaac Newton
 - 4. Thomas Edison

Q.40 An electric fan becomes warm if used continuously for longer time. This happens due to:

- Ans
- 1. the slow rotation of the fan
 - 2. the fast rotation of the fan
 - 3. heating effect of the current flowing through the fan
 - 4. the high temperature during the summer

Q.41 When washing soda is exposed to hot atmosphere for a long time, it:

- Ans
- 1. gains water molecules and dissolves in them
 - 2. gains heat from the Sun and becomes dry
 - 3. loses water molecules and becomes powdery
 - 4. loses water molecules but remains in crystal form

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| Q.42 | Ram takes 2 hours more than Ravi to walk 20 km. If Ram doubles his speed, then he is ahead of Ravi by one hour 20 minutes. Find the speed of Ravi (in km/hr). |
| Ans | <p><input type="checkbox"/> 1. 4</p> <p><input type="checkbox"/> 2. $3\frac{2}{7}$</p> <p><input checked="" type="checkbox"/> 3. $4\frac{2}{7}$</p> <p><input type="checkbox"/> 4. 3</p> |

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| Q.43 | In a displacement reaction, if a more reactive metal displaces a less reactive metal from its salt solution, what is the result? |
| Ans | <p><input type="checkbox"/> 1. The less reactive metal is displaced and the more reactive metal becomes a part of the compound</p> <p><input type="checkbox"/> 2. The less reactive metal is displaced and solidifies</p> <p><input type="checkbox"/> 3. The more reactive metal remains unchanged</p> <p><input checked="" type="checkbox"/> 4. Formation of an insoluble salt</p> |

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| Q.44 | <p>Select the letter-cluster pair that best represents a similar relationship to the one expressed in the pairs of letter-clusters given below.</p> <p>GHO : LGM HIN : MHL</p> |
| Ans | <p><input checked="" type="checkbox"/> 1. NCL : SBJ</p> <p><input type="checkbox"/> 2. ORK : OQM</p> <p><input type="checkbox"/> 3. JJS : JIR</p> <p><input type="checkbox"/> 4. MIH : MHE</p> |

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| Q.45 | 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 | <p><input type="checkbox"/> 1. NTWB</p> <p><input type="checkbox"/> 2. AGJO</p> <p><input checked="" type="checkbox"/> 3. RXAE</p> <p><input type="checkbox"/> 4. SYBG</p> |

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| Q.46 | What unique feature do the sex chromosomes in humans have compared to other chromosomes? |
| Ans | <p><input checked="" type="checkbox"/> 1. They are not always a perfect pair in males.</p> <p><input type="checkbox"/> 2. They are always perfectly paired.</p> <p><input type="checkbox"/> 3. They are identical in males and females.</p> <p><input type="checkbox"/> 4. They are the largest chromosomes in the body.</p> |

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| Q.47 | Rakesh starts from Point A and drives 21 km towards the west. He then takes a left turn, drives 23 km, turns left and drives 27 km. He then takes a left turn and drives 28 km. He takes a final left turn, drives 6 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° turns only unless specified.) |
| Ans | <p><input type="checkbox"/> 1. 2 km to the south</p> <p><input type="checkbox"/> 2. 3 km to the south</p> <p><input type="checkbox"/> 3. 4 km to the south</p> <p><input checked="" type="checkbox"/> 4. 5 km to the south</p> |

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| Q.48 | What should come in place of the question mark (?) in the given series? 34 34 46 46 58 58 70 70 ? |
| Ans | <input type="checkbox"/> 1. 84 <input type="checkbox"/> 2. 88 <input type="checkbox"/> 3. 90 <input checked="" type="checkbox"/> 4. 82 |

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| Q.49 | A gardener wants to grow potato plants. He had put a potato with buds (eyes) in the soil. He succeeded to get a new potato plant because: |
| Ans | <input type="checkbox"/> 1. potatoes can be grown by root cuttings <input type="checkbox"/> 2. there was no animal to eat the potato buds <input checked="" type="checkbox"/> 3. vegetative propagation is by buds (eyes) <input type="checkbox"/> 4. there are no other plant species in that area |

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| Q.50 | Which of the following states has the highest density of railway network as of 2019-20? |
| Ans | <input type="checkbox"/> 1. West Bengal <input type="checkbox"/> 2. Punjab <input type="checkbox"/> 3. Odisha <input checked="" type="checkbox"/> 4. Uttar Pradesh |

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| Q.51 | <p>Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on first number results in the second number. Similarly, certain mathematical operation on second number results in the third number and so on. Which of the given options follows the same set of operations as in question?</p> <p>(NOTE – A two/three digit number cannot be broken into individual digits for operations e.g. if 37 is followed by 10, the operation cannot be 3+7 as a two digit number cannot be broken into individual digits)</p> <p>2 – 14 – 44 – 88 ; 5 – 35 – 65 – 130</p> |
| Ans | <input checked="" type="checkbox"/> 1. 7 – 49 – 79 – 158 <input type="checkbox"/> 2. 11 – 121 – 152 – 162 <input type="checkbox"/> 3. 13 – 39 – 122 – 142 <input type="checkbox"/> 4. 14 – 64 – 94 – 144 |

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| Q.52 | <p>Two sets of numbers are given below. In each set of numbers, certain mathematical operation(s) on the first number results in the second number. Similarly, certain mathematical operation(s) on the second number results in the third number and so on. Which of the given options follows the same set of operations as in the given sets?</p> <p>(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)</p> <p>4 - 8 - 16 - 32; 1 - 2 - 4 - 8</p> |
| Ans | <input type="checkbox"/> 1. 6 - 12 - 24 - 28 <input checked="" type="checkbox"/> 2. 5 - 10 - 20 - 40 <input type="checkbox"/> 3. 12 - 24 - 28 - 56 <input type="checkbox"/> 4. 3 - 6 - 12 - 20 |

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| Q.53 | Radha thinks of a number and subtracts $6\frac{3}{5}$ from it. She multiplies the result by 10. Now the result obtained is four times the same number she thought. Find the number. |
| Ans | <input type="checkbox"/> 1. 12 <input type="checkbox"/> 2. 13 <input checked="" type="checkbox"/> 3. 11 <input type="checkbox"/> 4. 14 |

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| Q.54 | If A's salary is 31 % more than that of B, then how much percent is B's salary less than that of A (correct to 2 decimal places)? |
| Ans | <input checked="" type="checkbox"/> 1. 23.66% <input type="checkbox"/> 2. 21.53% <input type="checkbox"/> 3. 27.46% <input type="checkbox"/> 4. 21.74% |
| Q.55 | Which of the following is NOT true about fragmentation? |
| Ans | <input type="checkbox"/> 1. It requires the organism to be multicellular. <input type="checkbox"/> 2. Each fragment can grow into a complete individual. <input type="checkbox"/> 3. It involves breaking of the organism into parts. <input checked="" type="checkbox"/> 4. It is a form of sexual reproduction. |
| Q.56 | Which of the following is an example of exothermic combination reaction? |
| Ans | <input type="checkbox"/> 1. Respiration <input type="checkbox"/> 2. Ammonium chloride dissolved in water <input type="checkbox"/> 3. Photosynthesis <input checked="" type="checkbox"/> 4. Quick lime dissolved in water |
| Q.57 | 9 men can do a piece of work in 21 days. The number of men required to complete the same work in 3 days is: |
| Ans | <input type="checkbox"/> 1. 64 <input type="checkbox"/> 2. 62 <input type="checkbox"/> 3. 67 <input checked="" type="checkbox"/> 4. 63 |
| Q.58 | In which year was 'Reflections on Mughal Art & Culture' published? |
| Ans | <input type="checkbox"/> 1. 2020 <input type="checkbox"/> 2. 2022 <input checked="" type="checkbox"/> 3. 2021 <input type="checkbox"/> 4. 2019 |
| Q.59 | Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete? HKN 7, CFI 13, XAD 19, SVY 25, NQT 31, ? |
| Ans | <input checked="" type="checkbox"/> 1. ILO 37 <input type="checkbox"/> 2. ILO 36 <input type="checkbox"/> 3. JLO 37 <input type="checkbox"/> 4. ILP 37 |
| Q.60 | The ratio of numbers of girls and boys participating in sports of a school is 1 : 5. If the number of girls is 239, determine the number of boys participating in the sports. |
| Ans | <input type="checkbox"/> 1. 1215 <input type="checkbox"/> 2. 1225 <input checked="" type="checkbox"/> 3. 1195 <input type="checkbox"/> 4. 1170 |

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| Q.61 | Find the simple interest (in closest integral ₹) on ₹3000 at 8% per annum rate of interest for the period from 23 February 2024 to 24 April 2024 |
| Ans | <input type="checkbox"/> 1. 38 <input type="checkbox"/> 2. 39 <input type="checkbox"/> 3. 41 <input checked="" type="checkbox"/> 4. 40 |
| Q.62 | A rose plant with white flowers was planted in soil by stem cutting without any grafting. The new plant produced similar white flowers. What does it indicate? |
| Ans | <input type="checkbox"/> 1. White flowers look good so gardeners plant such roses. <input type="checkbox"/> 2. White flowers are the only type of variety available in rose. <input type="checkbox"/> 3. Stem cutting is a type of sexual reproduction, so there was no variation. <input checked="" type="checkbox"/> 4. Stem cutting is a type of asexual reproduction, so there was no variation. |
| Q.63 | When 268 is added to 6K8, the result is 9P6. What is the least possible value of K and P for which 9P6 is divisible by 3? |
| Ans | <input type="checkbox"/> 1. K=4; P=6 <input type="checkbox"/> 2. K=6; P=9 <input type="checkbox"/> 3. K=0; P=3 <input checked="" type="checkbox"/> 4. K=3; P=0 |
| Q.64 | What happens when sodium hydroxide reacts with copper (II) sulfate solution? |
| Ans | <input type="checkbox"/> 1. No reaction occurs. <input type="checkbox"/> 2. Sodium sulfate is formed. <input type="checkbox"/> 3. Copper metal is deposited. <input checked="" type="checkbox"/> 4. Copper(II) hydroxide precipitates. |
| Q.65 | Select the letter-cluster pair that best represents a similar relationship to the one expressed in the pairs of letter-clusters given below. UQY : WUV MDW : OHT |
| Ans | <input checked="" type="checkbox"/> 1. SOU : USR <input type="checkbox"/> 2. WTQ : YXO <input type="checkbox"/> 3. NUM : PYK <input type="checkbox"/> 4. LHR : NKO |
| Q.66 | B, C, E, F and H have different heights. F is taller than E but shorter than B. E is taller than H. C is taller than H. More than two people are taller than C. How many people are taller than H? |
| Ans | <input type="checkbox"/> 1. One <input checked="" type="checkbox"/> 2. Four <input type="checkbox"/> 3. Three <input type="checkbox"/> 4. Two |
| Q.67 | A company earns a profit (in ₹) that is distributed among the company's three partners in the ratio of 4 : 12 : 5. If the difference between the smallest and the largest shares is ₹20208, the total profit (in ₹) of the company is: |
| Ans | <input type="checkbox"/> 1. 53097 <input type="checkbox"/> 2. 53060 <input checked="" type="checkbox"/> 3. 53046 <input type="checkbox"/> 4. 53096 |

Q.68 In a certain code language,
'A + B' means 'A is the son of B',
'A - B' means 'A is the brother of B',
'A × B' means 'A is the wife of B' and
'A ÷ B' means 'A is the father of B'.
How is S related to H if 'S - D × F + G ÷ H'?

- Ans**
- 1. Wife's brother
 - 2. Brother's wife's father
 - 3. Brother's wife's brother
 - 4. Wife's father

Q.69 The reactants that are used for the production of bleaching powder are:

- Ans**
- 1. CaO + Cl
 - 2. Ca(OH)₂ + Cl₂
 - 3. CaO + Cl₂
 - 4. CaOH + Cl₂

Q.70 The mean marks of the following distribution is:

| Marks Obtained | No. of Students |
|----------------|-----------------|
| 28 | 8 |
| 12 | 12 |
| 57 | 18 |
| 85 | 13 |

- Ans**
- 1. 49
 - 2. 53
 - 3. 39
 - 4. 43

Q.71 The average price of three items of furniture is Rs 16860. If their prices are in the ratio 3:5:7, the price of the cheapest item (in Rs) is

- Ans**
- 1. 7868
 - 2. 10116
 - 3. 3372
 - 4. 5620

Q.72 What type of image does a concave lens form when an object is placed at infinity?

- Ans**
- 1. Real, inverted and same size
 - 2. Virtual, erect and point sized
 - 3. Virtual, erect and larger
 - 4. Real, erect and point sized

Q.73 Which of the following is the female germ cell in plants?

- Ans**
- 1. Cells outside the ovule
 - 2. Cells in the centre of ovule
 - 3. Egg cell
 - 4. Cell opposite to egg cell in an ovule

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| Q.74 | Which of the following plants propagates through runners? |
| Ans | <p><input type="checkbox"/> 1. Jasmine</p> <p><input type="checkbox"/> 2. Potato</p> <p><input checked="" type="checkbox"/> 3. Strawberry</p> <p><input type="checkbox"/> 4. Rose</p> |
| Q.75 | An object is placed at 30 cm from a convex mirror with a focal length of 15 cm. Calculate the image distance (v) using the mirror formula. |
| Ans | <p><input type="checkbox"/> 1. 15 cm</p> <p><input type="checkbox"/> 2. -15 cm</p> <p><input checked="" type="checkbox"/> 3. 10 cm</p> <p><input type="checkbox"/> 4. -10 cm</p> |
| Q.76 | A theater sold 500 tickets to a concert. The tickets for adults cost \$20 each, and the tickets for children cost \$12 each. If the total revenue was \$8,000, how many adult tickets were sold? |
| Ans | <p><input type="checkbox"/> 1. 200</p> <p><input checked="" type="checkbox"/> 2. 250</p> <p><input type="checkbox"/> 3. 350</p> <p><input type="checkbox"/> 4. 300</p> |
| Q.77 | A pipe can fill a tank in 18 hours. Another pipe can empty the filled tank in 21 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be filled is: |
| Ans | <p><input checked="" type="checkbox"/> 1. 126</p> <p><input type="checkbox"/> 2. 128</p> <p><input type="checkbox"/> 3. 129</p> <p><input type="checkbox"/> 4. 127</p> |
| Q.78 | Find the value of $0.\overline{36} + 0.\overline{723}$. |
| Ans | <p><input type="checkbox"/> 1. $1\frac{41}{495}$</p> <p><input checked="" type="checkbox"/> 2. $1\frac{89}{990}$</p> <p><input type="checkbox"/> 3. $1\frac{26}{33}$</p> <p><input type="checkbox"/> 4. $1\frac{31}{330}$</p> |
| Q.79 | The front face of a circular loop of a wire is the North Pole; the direction of current in this face of the loop will be: |
| Ans | <p><input type="checkbox"/> 1. towards north</p> <p><input checked="" type="checkbox"/> 2. anti-clockwise</p> <p><input type="checkbox"/> 3. towards south</p> <p><input type="checkbox"/> 4. clockwise</p> |

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| Q.80 | Each of P, Q, R, S, T, U and V has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. Only five people have exams after P. Only three people have exams before T. Q has the exam immediately after V but before U. S does not have the exam on Monday. How many people have exams between Q and R? |
| Ans | <p><input type="checkbox"/> 1. Three</p> <p><input type="checkbox"/> 2. Two</p> <p><input checked="" type="checkbox"/> 3. Four</p> <p><input type="checkbox"/> 4. One</p> |
| Q.81 | Simplify the given expression. $(1 + \cos A) (\operatorname{cosec} A - \cot A)$ |
| Ans | <p><input type="checkbox"/> 1. $\tan A$</p> <p><input type="checkbox"/> 2. $\operatorname{cosec} A$</p> <p><input type="checkbox"/> 3. $\sec A$</p> <p><input checked="" type="checkbox"/> 4. $\sin A$</p> |
| Q.82 | Chiang Mai city, the most polluted city in the world as of March 2024, is located in which country? |
| Ans | <p><input type="checkbox"/> 1. Japan</p> <p><input checked="" type="checkbox"/> 2. Thailand</p> <p><input type="checkbox"/> 3. Vietnam</p> <p><input type="checkbox"/> 4. China</p> |
| Q.83 | Neutralisation reaction is a type of: |
| Ans | <p><input type="checkbox"/> 1. combination reaction</p> <p><input type="checkbox"/> 2. decomposition reaction</p> <p><input type="checkbox"/> 3. displacement reaction</p> <p><input checked="" type="checkbox"/> 4. double displacement reaction</p> |
| Q.84 | A number when increased by 50 %, gives 2970. The number is: |
| Ans | <p><input checked="" type="checkbox"/> 1. 1980</p> <p><input type="checkbox"/> 2. 5940</p> <p><input type="checkbox"/> 3. 3960</p> <p><input type="checkbox"/> 4. 990</p> |
| Q.85 | Nita is pregnant, but loves to eat junk food. Her doctor advised her to eat salads and fruits. The reason for this advice is: |
| Ans | <p><input type="checkbox"/> 1. junk food is tasty, but leads to obesity</p> <p><input checked="" type="checkbox"/> 2. the nutrients in the mother's blood nourishes the growing baby</p> <p><input type="checkbox"/> 3. junk food is costly in comparison to salad and fruits</p> <p><input type="checkbox"/> 4. the mother's blood has no role in the growth of a baby</p> |
| Q.86 | If 330 persons can complete the construction of a shopping complex in 50 days, how many persons are required to complete the same work in 30 days? |
| Ans | <p><input checked="" type="checkbox"/> 1. 550</p> <p><input type="checkbox"/> 2. 450</p> <p><input type="checkbox"/> 3. 198</p> <p><input type="checkbox"/> 4. 505</p> |

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| Q.87 | What should come in place of the question mark (?) in the given series? 85 94 108 127 151 ? |
| Ans | <input type="checkbox"/> 1. 170 |
| | <input type="checkbox"/> 2. 175 |
| | <input checked="" type="checkbox"/> 3. 180 |
| | <input type="checkbox"/> 4. 185 |
| Q.88 | A lens has _____ principal foci. |
| Ans | <input type="checkbox"/> 1. 4 |
| | <input type="checkbox"/> 2. 1 |
| | <input checked="" type="checkbox"/> 3. 2 |
| | <input type="checkbox"/> 4. 3 |
| Q.89 | Article 24 of the Indian Constitution prohibits the employment of children below the age of ____ years in any factory, mine or other hazardous activities. |
| Ans | <input type="checkbox"/> 1. 12 |
| | <input checked="" type="checkbox"/> 2. 14 |
| | <input type="checkbox"/> 3. 18 |
| | <input type="checkbox"/> 4. 16 |
| Q.90 | The Indian Space Research Organisation (ISRO) celebrated its 55 th foundation day on 15 August 2024 by launching which of the following satellites? |
| Ans | <input type="checkbox"/> 1. EOS-06 |
| | <input type="checkbox"/> 2. EOS-07 |
| | <input checked="" type="checkbox"/> 3. EOS-08 |
| | <input type="checkbox"/> 4. EOS-04 |
| Q.91 | A man sold an article for ₹481 by first giving a d% discount on its marked price, and then another discount having the same nominal value (in ₹). If the marked price of the article is ₹1924, then what is the value of d? |
| Ans | <input type="checkbox"/> 1. 42.5 |
| | <input checked="" type="checkbox"/> 2. 37.5 |
| | <input type="checkbox"/> 3. 32 |
| | <input type="checkbox"/> 4. 33 |
| Q.92 | Find the total time taken by boat to travel upstream and downstream, if the distance travel in each direction (upstream and downstream) is 495km. If speed of boat is 32 km/h and speed of current is 23 km/h. |
| Ans | <input type="checkbox"/> 1. 62 hours |
| | <input checked="" type="checkbox"/> 2. 64 hours |
| | <input type="checkbox"/> 3. 72 hours |
| | <input type="checkbox"/> 4. 56 hours |
| Q.93 | An electric refrigerator rated 400 W operates 8 hours/day. What is the cost of the energy to operate it for 30 days at ₹3.00 per kW h? |
| Ans | <input type="checkbox"/> 1. ₹400 |
| | <input type="checkbox"/> 2. ₹36 |
| | <input checked="" type="checkbox"/> 3. ₹288 |
| | <input type="checkbox"/> 4. ₹9.6 |

Q.94 A cube of side 5 cm is cut into smaller cubes of side 1 cm. What is the ratio of the total surface area of the larger cube and the sum of the total surfaces of all the smaller cubes?

Ans 1. 1 : 5

2. 1 : 3

3. 2 : 5

4. 2 : 3

Q.95 Hangul, also known as Kashmir Stag, can be found in _____.

Ans 1. Campbell Bay

2. Dudhwa

3. Chandoli

4. Dachigam

Q.96 Which of the following is NOT a property of a regular polygon?

Ans 1. All sides are of equal length.

2. Angles at the centre by all sides are equal.

3. The angle made by each side at the centre is 90° , if it is a regular polygon with four sides.

4. The angle made by each side at the centre is 60° , if it is a regular polygon with eight sides.

Q.97 If the interest earned during the 2nd year on a certain sum is ₹4719, and the rate of interest is 10% per annum compounded annually, then the sum is:

Ans 1. ₹42045

2. ₹42900

3. ₹41905

4. ₹42445

Q.98 Who made history by becoming the oldest Indian to swim across the English Channel in August 2024?

Ans 1. Suyash Jadhav

2. Virbhawal Khade

3. Srihari Nataraj

4. Siddhartha Agarwal

Q.99 Which of the following bacterial infections is considered a sexually transmitted disease (STD)?

Ans 1. Gonorrhoea

2. Typhoid

3. Pneumonia

4. Tuberculosis

Q.100 The genetic constitution of a child getting an X bearing sperm from the father will be:

Ans 1. 46+XX

2. 46+XY

3. 44+XX

4. 44+XY