

1. Which of the following does not represent the property of solids?

- (a) Fatty connective tissue
- (b) Cartilage
- (c) Areolar connective tissue
- (d) Blood

[d]

Explanation -

Blood is a fluid, while fatty connective tissue, cartilage and areolar connective tissue are solids. Solids have a definite shape and volume, while fluids do not have a definite shape.

Blood is a liquid connective tissue. It mainly consists of plasma (which is a fluid) and various types of cells such as red blood cells, white blood cells and platelets suspended in it. It flows throughout the body and has no definite shape, which is an important property of solids.

2. Find the value of the given expression.

$$(-4) + (-12) \div (-6)$$

- (a) -8
- (b) -4
- (c) -2
- (d) -6

[c]

व्याख्या:-

$$= (-4) + (-12) \div (-6)$$

$$= (-4) + 2$$

$$= -2$$

3. 40 g of common salt is dissolved in 320 g of solvent water of a solution. Calculate the concentration of the solution in terms of mass by mass percentage?

- (a) 11.1%
- (b) 11.0%
- (c) 11.3%
- (d) 1.0%

[a]

Explanation -

To calculate the concentration of a solution, we use the following formula:

$$\text{Mass percent} = \frac{\text{Mass of solute}}{\text{Mass of solution}} \times 100\%$$

Here,

- Mass of solute (common salt) = 40 g
 - Mass of solvent (water) = 320 g
- Mass of solution = Mass of solute + Mass of solvent
 Mass of solution = 40 + 320
 Mass of solution = 360

Put this value in the concentration formula:

$$\text{Mass percent} = \frac{40}{360} \times 100\%$$

$$\text{mass percent} = \frac{1}{9} \times 100\%$$

$$\text{mass percent} \approx 0.1111 \times 100\%$$

mass percent $\approx 11.11\%$

4. Which element is required by the thyroid gland for the synthesis of thyroxine hormone?

- (a) Calcium
- (b) Sodium
- (c) Potassium
- (d) Iodine [d]

Explanation -

Thyroid gland requires iodine element for the synthesis of thyroxine hormone.

Thyroxine hormone is an important hormone produced by the thyroid gland that regulates the metabolism, growth and development of the body.

*Iodine is an essential component of the structure of this hormone. It affects energy production, body temperature and protein synthesis. If there is not enough iodine in the body, the thyroid gland is unable to produce enough thyroxine. This can lead to a condition called hypothyroidism, symptoms of which include fatigue, weight gain, sensitivity to cold and slow metabolism. Severe iodine deficiency can also cause enlargement of the thyroid gland in the neck, called goiter.

5. The number of chromosomes in a daughter cell is halved by the process of

- (a) binary fission
- (b) meiosis
- (c) mitosis
- (d) amitosis [b]

Explanation -

The number of chromosomes in a daughter cell is halved by the process of meiosis.

Meiosis - It is a special type of cell division that occurs to produce gametes - such as sperm and egg.

In this process, a diploid parent cell (containing two sets of chromosomes) undergoes two successive divisions, resulting in the formation of four haploid daughter cells. Each haploid daughter cell has half the number of chromosomes of the parent cell. It is important for sexual reproduction as it helps in keeping the number of chromosomes constant after fertilisation.

6. In the following number-pairs, the second number is obtained by performing some mathematical operations on the first number. What numbers should come in place of X and Y so that the pattern followed by the two

numbers on the left of :: is followed by the same pattern on the right of ::?

(Note: Operations must be performed on whole numbers without breaking the number into its constituent digits. Ex. 13 - Operations on number 13 like addition/subtraction/multiplying 13 etc. can be performed. Breaking 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

X : 649 :: 956 : Y

(a) X = 876 Y = 724

(b) X = 894 Y = 711

(c) X = 944 Y = 742

(d) X = 923 Y = 738

[b]

व्याख्या :

$$\begin{array}{ccccccc} x & : & 649 & :: & 956 & : & Y \\ \downarrow & & & & \downarrow & & \\ 894 - 245 = 649 & & & & 956 - 245 = 711 & & \end{array}$$

Hence, x = 894 and y = 711.

7. The headquarters of Defence Research and Development Organisation is located in _____.

(a) New Delhi

(b) Mumbai

(c) Hyderabad

(d) Bengaluru

[a]

व्याख्या -

Defence Research and Development Organisation (DRDO) is a premier organisation under the Indian Ministry of Defence, which carries out research, development and innovation in the country's security and defence sector. Its headquarters is located in New Delhi. The objective of this organization is to develop new technologies, design and manufacture systems of missiles, fighter aircraft, and other military equipment. DRDO is continuously working to strengthen the defence capability of the country.

8. Seven persons, A, B, C, D, E, F and G, are sitting in a row facing north. Only two persons are sitting to the left of A. Only three persons are sitting between G and A. C is the immediate neighbour of F. D is sitting second to the left of F. How many persons are sitting to the left of F?

(a) three

(b) two

(c) four

(d) one

[a]

व्याख्या :



It is clear from the diagram that three persons are sitting to the left of F.

9. Which one of the following statements is correct according to the Law of Conservation of Mass?

(a) Mass can be created in a chemical reaction.

(b) Mass can neither be created nor destroyed in a chemical reaction.

(c) Mass can be destroyed in a chemical reaction.

(d) Mass can be created but cannot be destroyed in a chemical reaction. [b]

Explanation -

The Law of Conservation of Mass is a fundamental scientific principle. According to it, mass can neither be created nor destroyed in any chemical reaction.

This law states that in a closed system, the total mass of reactants before the reaction is equal to the total mass of the products formed after the reaction. In other words, in chemical reactions the substance only changes from one form to another, its total mass remains unchanged.

10. What is the median of the given observations, 4, 14, 11, 8, 7, 8, 9, 12, 4 and 6?

(a) 8

(b) 11

(c) 10

(d) 9

[a]

व्याख्या:-

Arrange the observations in ascending order (increasing order)

$$= 4, 4, 6, 7, 8, 8, 9, 11, 12, 14$$

There are total 10 observations, so n = 10.

Since n is an even number, the median will be the average of the middle two observations.

The middle two observations will be at n/2nd and (n/2 + 1)th positions.

$$n/2 = 10/2 = 5\text{th observation}$$

4,4,6,7,8(5th observation),8(6th observation),9,11,12,14

$$\text{Median} = \frac{5\text{th observation} + 6\text{th observation}}{2}$$

$$\text{Median} = \frac{8 + 8}{2}$$

$$\text{Median} = \frac{16}{2}$$

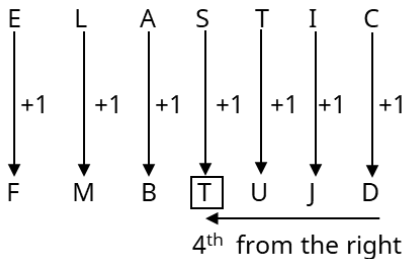
$$\text{Median} = 8$$

11. If each vowel of the word ELASTIC is replaced by its subsequent letter in the English alphabetical order and each consonant is replaced by its subsequent letter in the English alphabetical order, then which of the following letters will be fourth from the right in the letter group thus formed?

- (a) M
(b) T
(c) B
(d) U

[b]

व्याख्या:-



The new letter group will have 'T' at the fourth position from the right.

12. Amit bought a laptop at a discount of 25% on its marked price. If he paid ₹28,500 for the laptop, what was the marked price of the laptop?

- (a) ₹37,000
(b) ₹38,600
(c) ₹37,400
(d) ₹38,000

[d]

व्याख्या:-

The face value is 100x,

And after giving a discount of 25% the price of the laptop is Rs 28,500.

$$a \times (100 - 25) \% = 28,500$$

$$a \times 75\% = 28,500$$

$$a = (28,500 \times 100) \div 75$$

$$a = 2850000 \div 75$$

$$a = 38,000$$

Therefore, the marked price of the laptop is ₹ 38,000.

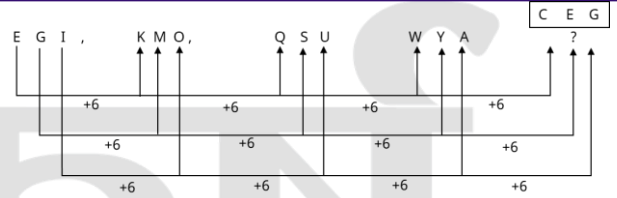
13. Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

EGI, KMO, QSU, WYA, ?

- (a) CEG
(b) DGJ
(c) CFI
(d) DFH

[a]

व्याख्या:-



? = CEG

14. Find the value of the given expression.

$$16 + 8 \div 4 - 2 \times 3$$

- (a) 18
(b) 0
(c) 6
(d) 12

[d]

व्याख्या:-

$$= 16 + 8 \div 4 - 2 \times 3$$

$$= 16 + 2 - 2 \times 3$$

$$= 18 - 6$$

$$= 12$$

15. Which of the following Acts was amended in 2023 to enhance child protection measures in India?

- (a) Juvenile Justice (Care and Protection of Children) Act
(b) Right to Education Act
(c) Child Labour (Prohibition and Regulation) Act
(d) Protection of Children from Sexual Offences Act

[a]

व्याख्या -

In 2023, the "Protection of Children from Sexual Offences Act" (POCSO Act) was amended to enhance child protection measures in India. Under this amendment, the punishment for sexual crimes against children was further tightened. In particular, punitive provisions were implemented for the broadcast and dissemination of child sexual abuse material (CSEAM). Additionally, new provisions were added to ensure the safety of children during natural disasters and strict punishment was provided to the perpetrators in cases of child abuse.

16. Which of the following compounds is unsaturated?

- (a) C_4H_{10}
(b) C_3H_8
(c) C_2H_6
(d) C_2H_4

[d]

Explanation -

Organic compounds can be classified as saturated and unsaturated.

Saturated Compounds: Organic compounds that contain only single bonds between carbon-

carbon atoms. These are usually alkanes, having the general formula C_nH_{2n+2} .

Unsaturated Compounds: Organic compounds that contain at least one double bond or triple bond between carbon-carbon atoms.

These are usually alkenes, having the general formula C_nH_{2n} , or alkynes, having the general formula C_nH .

C_2H_4 - here $n = 2$.

Putting it in the formula C_nH_{2n} -

$C_2H_2 \times 2 = C_2H_4$

It is an alkene (ethene) and has a carbon-carbon double bond.

Hence, it is unsaturated.

17. In two triangles ABC and DEF, if $\overline{AB} = \overline{EF}, \overline{BC} = \overline{DF}$ and $\overline{CA} = \overline{DE}$, which of the following is correct?

- (a) $\triangle BAC \cong \triangle FDE$
- (b) $\triangle DEF \cong \triangle BCA$
- (c) $\triangle ABC \cong \triangle DEF$
- (d) $\triangle CBA \cong \triangle DFE$

[d]

व्याख्या:-

Match the vertices by similarity of joints:

$AB = EF \Rightarrow A \leftrightarrow E, B \leftrightarrow F$

$BC = DF \Rightarrow B \leftrightarrow F, C \leftrightarrow D$

$CA = DE \Rightarrow C \leftrightarrow D, A \leftrightarrow E$

Install compatible order:

$A \leftrightarrow E, B \leftrightarrow F, C \leftrightarrow D$

$\triangle ABC \cong \triangle FED$

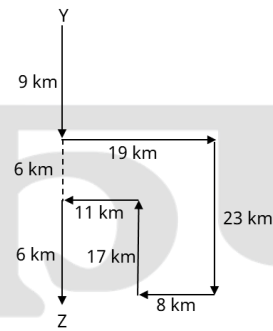
Therefore, the correct answer is (d).

18. Sharad starts from point Y and walks 9 km towards south. Then he turns left and walks 19 km, turns right and walks 23 km. Then he turns right and walks 8 km. He turns right and walks 17 km. Then he turns left and walks 11 km, turns left and walks 6 km to stop at point Z. How far (shortest distance) and in which direction should he drive to reach point Y again? (Unless specified, all turns are 90 degrees only)

- (a) 21km towards north
- (b) 15km towards south
- (c) 26km towards north
- (d) 23km towards south

[a]

व्याख्या:-



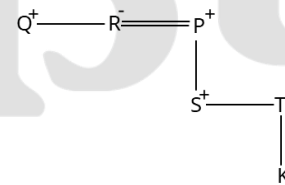
As per the diagram, Shabd will travel 21 km in north direction to reach point Y from point Z.

19. In a certain code language,
A + B means 'A is the mother of B',
A - B means 'A is the brother of B',
A × B means 'A is the wife of B',
A ÷ B means 'A is the father of B',
A # B means 'A is the daughter of B'.
 If 'Q - R × P ÷ S - T + K', then how is P related to K?

- (a) Daughter's son
- (b) Father's father
- (c) Mother's father
- (d) Son's daughter

[c]

व्याख्या:-



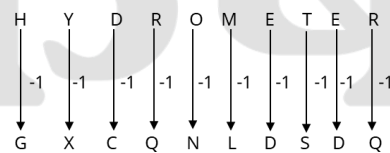
It is clear from the diagram that P is the father of K's mother.

20. Each letter of the word HYDROMETER is replaced by its previous letter in the English alphabetical order and then all the letters thus formed are arranged in the English alphabetical order. Which of the following letters will be fifth from the right in the new group of letters thus formed?

- (a) Q
- (b) N
- (c) L
- (d) G

[b]

व्याख्या:-



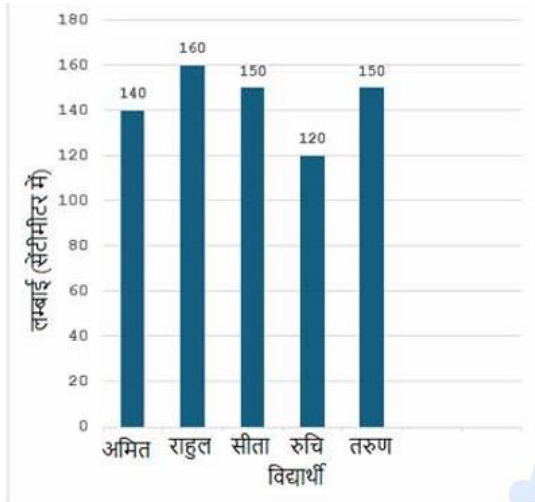
Arranging them in English alphabetical order -

C D D G L **N** Q Q S X
 5th from the midwife

When the new letter group is arranged in the English alphabetical order, the fifth letter from the right will be N.

21. Study the following graph and answer the given question.

The graph shows the heights of five students in a class.



What is the ratio between the height of Amit and the height of Rahul respectively?

- (a) 9 : 10
 (b) 5 : 6
 (c) 7 : 8
 (d) 12 : 13

[c]

व्याख्या:-

Height of Amit = 140 cm

Height of Rahul = 160 cm

Ratio = Height of Amit : Height of Rahul = 140:160
 = 7:8

22. When white light falls on a glass prism, it gets dispersed. This phenomenon occurs due to _____.

- (a) The refractive index of glass is same for different colours
 (b) The refractive index of glass is different for different colours
 (c) Diffraction of light
 (d) Interference of light

[b]

Explanation -

When white light falls on a glass prism, it gets dispersed. This phenomenon occurs due to the refractive index of glass being different for different colours.

White light is actually a mixture of different colours (violet, violet, blue, green, yellow, orange, red), each of which has a different wavelength.

When this light passes through a prism, each colour bends at a different angle because

Variation in Refractive Index:- The refractive index of an optical medium such as glass depends on the wavelength of the light. This means that for the same prism, the speed of light of different colours is different, and hence they refract (bend) by different amounts.

Wavelength and Deviation:- Generally, red light has the longest wavelength and it bends the least (is deflected the least). On the other hand, violet light has the shortest wavelength and it bends the most (is deflected the most). This is the reason why white light gets split into its component colours when it emerges from a prism, which causes us to see a spectrum.

23. In September 2024, Prime Minister Narendra Modi launched three indigenously developed _____ supercomputers under the National Supercomputing Mission.

- (a) Parma Chandra
 (b) Param Shakti
 (c) Param Surya
 (d) Param Rudra

[d]

व्याख्या -

In September 2024, Prime Minister Narendra Modi inaugurated three indigenously developed "PARAM Rudra" supercomputers under the National Supercomputing Mission (NSM). These supercomputers were built at a cost of ₹130 crore and are installed in Pune, Delhi and Kolkata. They aim to enhance high-performance computing capabilities in areas such as science, weather, climate and space research.

Speaking on the occasion, Prime Minister Modi said, "In today's digital age, computing capability is becoming synonymous with national capability." He also added, "Our contribution to this revolution should not be in bits and bytes, but in terabytes and petabytes."

24. If a force 'F' acts on a body such that the body is displaced by a distance 'x' in the direction of force, then the work done by the force is _____.

- (a) F/x
 (b) Fx
 (c) X/F
 (d) X²F

[b]

Explanation -

When a force (F) acts on a body and the body is displaced by a distance 'x' in the direction of

force, then the work done by the force is given by the following formula:

Work = Force × Displacement

Mathematically, it can be written as:

$W = Fx$

25. A dishonest trader professes to sell goods at cost price but uses a false weight of 900 grams in place of one kilogram. What is his profit percentage?

- (a) 10%
(b) 11%
(c) $11\frac{2}{9}\%$
(d) $11\frac{1}{9}\%$

[d]

व्याख्या:-

Correct weight - Incorrect weight = 1000 g - 900 g = 100 g

Profit % = (Error / Weight sold) × 100

Gain % = (Actual weight - Used weight) / Used weight × 100

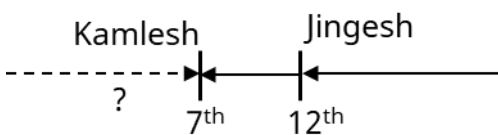
Benefit% = $\frac{100}{900} \times 100 = 11\frac{1}{9}\%$

26. In a row of 34 students facing north, Jignesh is 12th and 12th from the right end. If Kamlesh is 7th to the left of Jignesh, then what is the position of Kamlesh from the left end of the row?

- (a) 17th
(b) 16th
(c) 18th
(d) 19th

[b]

व्याख्या:-



Position of Kamlesh from the right = 12 + 7 = 19th

Kamlesh's position from the left = 34 - 19 + 1 = 16th

27. Find the perimeter of a rhombus whose diagonals are of length 6 cm and 8 cm.

- (a) 20 cm
(b) 25 cm
(c) 26 cm
(d) 24 cm

[a]

व्याख्या:-

The lengths of the diagonals of a rhombus are 6 cm and 8 cm.

Half of the diagonals:

$d_1/2 = 6/2 = 3$ cm

$d_2/2 = 8/2 = 4$ cm

Side(s) of rhombus from Pythagoras theorem:

$$S = \sqrt{(3^2 + 4^2)}$$

$$S = \sqrt{(9 + 16)}$$

$$S = \sqrt{25}$$

$$S = 5 \text{ सेमी}$$

Perimeter of rhombus = 4 × s

Perimeter = 4 × 5 = 20 cm

28. What will be the simple interest on Rs. 1,280 at 5% per annum in 3 years?

- (a) Rs 195
(b) Rs 192
(c) Rs 185
(d) Rs 180

[b]

व्याख्या:-

Has been given:

Principal value (P) = Rs 1,280

Rate of Interest (R) = 5% per annum

Time period (T) = 3 years

According to the formula:

$$\text{Simple Interest} = \frac{PRT}{100}$$

P = Principal value, R = Interest rate, T = Time period

$$\text{Simple Interest} = \frac{1280 \times 5 \times 3}{100} = \text{Rs. } 192$$

29. Which organisation will host the six-day International Festival of Indian Dance in Delhi from 16 October 2024?

- (a) Kalakshetra Foundation
(b) Sangeet Natak Academy
(c) Indian Council for Cultural Relations
(d) Kathak Center

[b]

व्याख्या -

Sangeet Natak Akademi, a premier cultural institution under the Ministry of Culture, Government of India, organised the first International Festival of Indian Dance in Delhi from 16 to 21 October 2024. The festival was organised to showcase the diversity and richness of Indian dance. Artists from 16 countries participated and performed various dance styles. Along with dance performances, the festival also organised over 30 research sessions that discussed various aspects of Indian dance. Contemporary issues in Indian dance, such as the use of artificial intelligence in dance, sustainable livelihood models for artists, and policy recommendations for cultural institutions were discussed. The festival was inaugurated by Union

Minister of Culture and Tourism Shri Gajendra Singh Shekhawat.

The aim of this festival was to present the rich tradition of Indian dance on a global platform and to promote dialogue and collaboration on various aspects of dance. This event was an important step towards the preservation and promotion of Indian dance art.

30. If + means \times , - means \div , \times means $+$, \div means $-$, then what will come in place of question mark '?' in the following equation?

$$28 - 6 \div 4 + 14 \times 14 = ?$$

- (a) 160
(b) 171
(c) 168
(d) 169

[b]

व्याख्या:-

$$28 - 6 \div 4 + 14 \times 14 = ?$$

As per question,

$$28 \times 6 + 4 - 14 \div 14 = ?$$

$$168 + 4 - 1 = ?$$

$$171 = ?$$

31. Umesh took 100 chocolates out of 250 chocolates from Ruchi. Umesh gave 20% of his chocolates to Shalaka and 35% to Mary, then Ruchi gave 50% of her remaining chocolates to Umesh. Find the number of chocolates Umesh had in the end.

- (a) 75
(b) 130
(c) 120
(d) 125

[c]

व्याख्या:-

John took 100 chocolates out of 250 chocolates from Ritu. John gave 20% of his chocolates to Sam and 35% to Mary then Ritu gave 50% of her chocolates to John and 20% of the remaining chocolates to Sam.

concept used:

In this type of questions, the number of chocolates left with John can be calculated with the help of the below formula.

According to the formula:

Remaining chocolates with John = Total chocolates with John initially - Chocolates distributed by John + Chocolates received by John.

Total chocolates with John initially = 100,
Chocolates distributed by John = (20 + 35) = 55,

Chocolates received by John = (250-100)/2 = 75

$$\Rightarrow \text{John has chocolates left} = 100 - (20 + 35) + 75$$

$$\Rightarrow 120$$

$$\therefore \text{John has chocolates left} = 120$$

32. In a certain code language, 'bright as day' is written as 'cb mn ju', and 'day and night' is written as 'mn fd rs'. How will 'day' be written in that code language?

- (a) ju
(b) mn
(c) fd
(d) cb

[b]

व्याख्या:-

Just as

Bright as day - cb mn ju

Day and night - mn fd as

Similarly

Day = mn

33. Simplify the following expression.

$$9991 \times 10009$$

- (a) 99999919
(b) 91999919
(c) 9999919
(d) 9999999

[a]

व्याख्या:-

Has been given:

$$9991 \times 10009$$

According to the formula:

$$(a + b)(a - b) = a^2 - b^2$$

$$\Rightarrow 9991 = 10000 - 9$$

$$\Rightarrow 10009 = 10000 + 9$$

According to the source,

$$\Rightarrow (10000 - 9)(10000 + 9)$$

$$= (10000)^2 - (9)^2$$

$$= 100000000 - 81 = 99999919$$

\Rightarrow Hence the value of 9991×10009 is 99999919.

34. The gravitational force between two objects with masses m_1 and m_2 is proportional to _____.

- (a) $\frac{m_1}{m_2}$
(b) $m_1 - m_2$
(c) $m_2 + m_1$
(d) $m_1 \times m_2$

[d]

Explanation -

According to Newton's Law of Universal Gravitation, the gravitational force between two objects is directly proportional to the product of their masses and inversely proportional to the square of the distance between them.

Mathematically, the gravitational force (F) is expressed as:

$$\left[F = G \frac{m_1 m_2}{r^2} \right]$$

Where:

- F is the gravitational force.
- G is the gravitational constant.
- m_1 and m_2 are the masses of the two objects.
- r is the distance between the centres of the two objects.

It is clear from this formula that the gravitational force is proportional to the product of the two masses (m_1 and m_2).

35. Which two numbers should be interchanged to make the given equation correct?

$$75 \div 5 + 15 \times 4 - 17 \times 3 + (60 \div 6) \times 10 = 100$$

(Note: Whole numbers should be interchanged and not the individual digits of the given number.)

- (a) 5 and 3
- (b) 3 and 6
- (c) 3 and 4
- (d) 17 and 15

[a]

व्याख्या:-

$$75 \div 5 + 15 \times 4 - 17 \times 3 + (60 \div 6) \times 10 = 100$$

From option (a)

$$75 \div 3 + 15 \times 4 - 17 \times 5 + (60 \div 6) \times 10 = 100$$

$$25 + 60 - 85 + 10 \times 10 = 100$$

$$85 - 85 + 100 = 100$$

$$100 = 100$$

36. A car moving on a straight path slows down and stops. What type of motion is the car in?

- (a) Circular motion
- (b) Non-uniform motion
- (c) Periodic motion
- (d) Uniform motion [b]

Explanation -

When a car moving on a straight path slows down and stops, it is in non-uniform motion.

Non-uniform motion - If an object moving in a straight line covers unequal distances in equal time intervals, or its speed or direction keeps changing, then it is said to be in non-uniform motion. In this case, the car is slowing down, which means its speed is constantly changing. This is a clear example of non-uniform motion.

Circular motion - In this type of motion, the object moves in the path of a circle. Here the car is moving in a straight line, so it is not a circular motion.

Uniform motion - In this, an object covers the same distance in a straight line in equal time intervals, i.e. its speed remains constant. Since the car is slowing down and stopping, its speed is not constant.

Periodic motion - In this type of motion, the object repeats its motion after a fixed time interval, like the swinging of a pendulum. The motion of the car is not like this.

37. In a certain code language, 'RUIN' is written as '3719' and 'RUNG' is written as '7916'. How will 'G' be written in that code language?

- (a) 9
- (b) 7
- (c) 6
- (d) 1

[c]

व्याख्या:-

Just as -

$$\boxed{R} \boxed{U} \boxed{I} \boxed{N} - 3 \boxed{7} \boxed{1} \boxed{9}$$

$$\boxed{R} \boxed{U} \boxed{N} \boxed{G} - \boxed{7} \boxed{9} \boxed{1} \boxed{6}$$

similarly

$$G = 6$$

38. The magnetic field produced by a current-carrying wire at a given point depends on which of the following factors?

- (a) Current flowing through the wire only
- (b) Distance from the wire only
- (c) Neither distance from the wire nor current flowing through the wire
- (d) Both distance from the wire and current flowing through the wire [d]

Explanation -

The magnetic field produced by a current carrying wire at a given point depends on the following two factors:

Current flowing through the wire - As the current flowing through the wire increases, the intensity of the magnetic field produced also increases. This is a direct relationship.

Distance from the wire - As you move away from the wire, the intensity of the magnetic field decreases. This is an inverse relationship, usually inversely proportional to the square of the distance (or inversely proportional to the distance for a straight wire).

Both these factors are explained by laws like Biot-Savart Law or Ampere's Law, which state that the strength of the magnetic field is directly proportional to the current and inversely proportional to the distance.

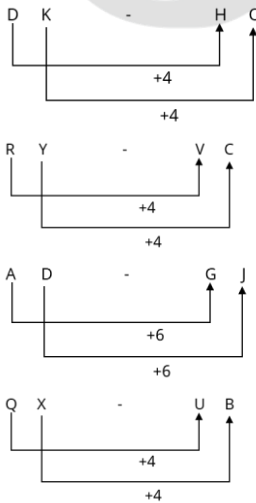
39. Three of the following four letter-cluster pairs are alike in a certain way based on the English alphabetical order and thus form a group. Which pair does not belong to that group?

(Note: Anomalous letter clusters are not based on the number of consonants/vowels or their position in the letter cluster.)

- (a) DK-HO
- (b) RY-VC
- (c) AD-GJ
- (d) QX-UB

[c]

व्याख्या:-



Hence "AD - GJ " is different from " .

40. Read the statements and conclusions given below carefully. You have to assume that the given statements are true even if they seem to be at variance with commonly known facts and decide which of the conclusions logically follows from the given statement(s).

Statement:

- Some cars are bikes.
- All bikes are trucks.

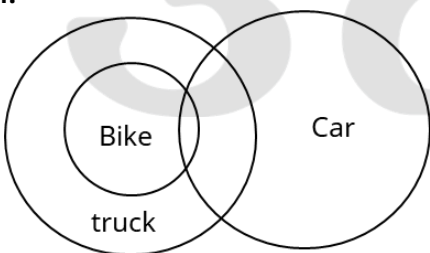
conclusion:

- (I) Some trucks are cars.
- (II) All trucks are cars.

- (a) Only conclusion (I) follows from the statements.
- (b) Neither conclusion (I) nor (II) follows from the statements.
- (c) Both conclusion (I) and (II) follow from the statements.
- (d) Only conclusion (II) follows from the statements.

[a]

व्याख्या:-



It is clear from the diagram that only conclusion (I) follows.

41. India created history at the 2024 edition of the Chess Olympiad by winning gold medals in both the _____ Open and Women's categories.
- (a) second time
 - (b) third time
 - (c) fourth time
 - (d) first time

[d]

व्याख्या -

India created history at the 2024 Chess Olympiad by winning gold medals in both the Open and Women's categories. This is India's first time winning gold medals in both categories at this prestigious tournament. Earlier, India had won a bronze medal in the Women's category in 2022, but this was the first gold medal win in the Open category. With this achievement, India has earned the distinction of becoming the third country to win gold medals in both the Open and Women's categories, a feat previously achieved by the Soviet Union and China.

In the open category, India won the gold medal by scoring 21 out of 22 match points, while in the women's category, India won the gold medal by scoring 19 out of 22 match points. Young talents like Gukesh Dommaraju, Arjun Erigaisi, and Divya Deshmukh played an important role in this stellar performance.

This historic victory has given Indian chess a new identity on the global stage and will be a source of inspiration for generations to come.

42. How much is 80% of 40 more than $\frac{4}{5}$ of 25?
- (a) 12
 - (b) 9
 - (c) 6
 - (d) 4

[a]

व्याख्या:-

$$40 \text{ of } 80\% = 40 \times \frac{80}{100} \Rightarrow 32$$

$$25 \text{'s } \frac{4}{5} = 25 \times \frac{4}{5} \Rightarrow 20$$

Difference between first value and second value = 32-20=12

So, 80% of 40 is 12 more than $\frac{4}{5}$ of 25.

43. When an object is placed between the principal focus and pole of the mirror, the nature of the image formed by a concave mirror is _____.
- (a) Virtual and erect

- (b) Virtual and inverted
 (c) Real and erect
 (d) Real and inverted [a]

Explanation -

When an object is placed between the principal focus (F) and pole (P) of a concave mirror, the nature of the image formed is virtual and erect. Concave mirrors form different types of images of the object in different positions. When the object is placed between the principal focus and pole, the image is formed behind the mirror.

This image is virtual because the light rays do not actually meet at a point but appear to meet.

This image is erect i.e. directed upwards like the object.

This image is magnified.

This situation is commonly used in shaving mirrors or make-up mirrors where a magnified and erect image of the face is required.

44. **Ms. Yanung Jamoh Lego, who has been awarded the Padma Shri award in the agriculture sector in 2024, belongs to which state of India?**

- (a) Maharashtra
 (b) Madhya Pradesh
 (c) Arunachal Pradesh
 (d) Rajasthan

[c]

व्याख्या -

Ms. Yanung Jamoh Lego, who was awarded the Padma Shri award in the Agriculture sector in 2024, belongs to the Indian state of Arunachal Pradesh. She was born on 9 July 1963 in Sika Tode village in East Siang district. While working as Deputy Director in the Agriculture Department of the Government of Arunachal Pradesh, she revived traditional herbal medicine practices and treated more than 3 lakh patients for more than 30 years. Her expertise has been particularly in diseases like cancer, diabetes and hypertension. After receiving the Padma Shri award, President Draupadi Murmu presented the honour to him at a ceremony held at Rashtrapati Bhavan. His achievement has made Arunachal Pradesh proud and has proved to be an important step towards the preservation and promotion of traditional medical practices.

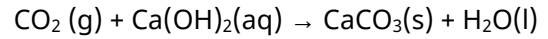
45. **Which of the following is formed when carbon dioxide reacts with calcium hydroxide?**

- (a) Methane
 (b) Calcium oxide
 (c) Carbon monoxide
 (d) Calcium carbonate [d]

Explanation -

When carbon dioxide (CO₂) reacts with calcium hydroxide (Ca(OH)₂), calcium carbonate (CaCO₃) and water (H₂O) are formed. This is a chemical reaction that is known to turn lime water (calcium hydroxide solution) milky, as calcium carbonate is insoluble in water and separates out as a white precipitate.

The chemical equation is as follows -



46. **Which of the following options represents the properties of solids?**

- (a) They have clear boundaries and fixed volume.
 (b) They have a definite shape.
 (c) It is not difficult to change their shape.
 (d) They retain their shape when external force is applied. [c]

Explanation -

It is difficult to change the shape of solids by applying external force. A lot of force is required to break or bend them.

Solids tend to retain their shape even when external force is applied due to their rigidity (unless the force is so great that they break or deform).

Clear boundaries: - Solids have definite and clear boundaries. You can define them easily.

Fixed volume: - Solids have a definite volume. Their volume does not change even if they are kept in any container.

Solids have a definite and rigid shape. They do not take the shape of the container in which they are kept.

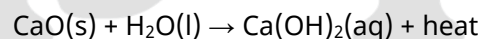
47. **Which of the following reactions represents the formation of quicklime from calcium oxide and water?**

- (a) Precipitation reaction
 (b) Combination reaction
 (c) Displacement reaction
 (d) Decomposition reaction [b]

Explanation -

When calcium oxide (CaO, also called quicklime) reacts with water (H₂O), quicklime (Calcium Hydroxide, Ca(OH)₂) is formed.

The chemical equation of this reaction is as follows:-



In this reaction, two or more reactants (calcium oxide and water) combine to form a single product (slaked lime).

A reaction in which two or more substances combine to form a new, single product is called a combination reaction.

48. A statement is given below followed by two possible reasons numbered I and II. Read the statement carefully and decide which of the two reasons best explains the event/observation/information given in the statement?

Statement - The prices of tomatoes have been increasing continuously for the last two weeks, and the prices of tomatoes have crossed ₹ 200/kg in most parts of the country. Reason:

(I) Farmers have reported infestation of a new unknown pest in tomato crop, which has affected tomato crop production in many states across the country.

(II) Heavy floods in many states during the monsoon season have destroyed many standing vegetable crops, leading to shortages in supply.

- (a) Both I and II are possible causes.
 (b) Only II is a possible cause.
 (c) Only I is a possible cause.
 (d) Neither I nor II is a possible cause. [a]

व्याख्या:-

Reason I: Pest infestation on tomato crop, such as fruit borer, white fly and leaf curl virus, has been reported in many parts of the country, affecting production.

Reason II: Heavy rains and floods in many states during monsoon have destroyed vegetable crops, leading to a shortage of supply.

Both these reasons have reduced the availability of tomato, pushing up prices to ₹200/kg.

So, both I and II are possible reasons.

49. Which of the following substances can move across the cell membrane by diffusion?
 (a) Oxygen
 (b) Nucleic acid
 (c) Protein
 (d) Starch [a]

Explanation -

The substance that can move across the cell membrane by diffusion is oxygen.

Diffusion is a process in which particles of a substance move from a region of higher concentration to a region of lower concentration

until the concentrations are balanced. Diffusion is particularly effective for small, non-polar and gas molecules for the movement of substances across the cell membrane.

Oxygen (O₂) - Oxygen is a small and nonpolar gas molecule. It can easily diffuse across the cell membrane made of lipid bilayer according to the concentration gradient. For example, when the concentration of oxygen is low inside the cell (because it is being used in metabolism) and high outside the cell, oxygen diffuses inside the cell. Similarly, carbon dioxide (CO₂) also moves across the cell membrane by diffusion.

50. What is the title of the book by Parimal Nathwani, which was presented to PM Modi in 2024?

- (a) Call of the Gir
 (b) The Kingdom of Lions
 (c) Asiatic Lions: A Conservation Story
 (d) The Pride of Gujarat [a]

व्याख्या -

In 2024, Parimal Nathwani presented his new coffee table book "Call of the Gir" to Prime Minister Narendra Modi. The book is based on the Gir Sanctuary and the conservation of Asiatic lions. It includes rare photographs of Gir's wildlife, biodiversity and lions. The book is published by international publisher QUIGNOG. This is the second edition of his book "Gir Lions: Pride of Gujarat" published in 2017. The book also includes a message from Prime Minister Modi, in which he stressed the need to develop tourism and structures in Gir.

51. The sum of a two-digit number and the number obtained by reversing the digits is 99. If there is a difference of 7 between the digits of the number, then what is that two-digit number?

- (a) 81
 (b) 92
 (c) 19
 (d) 29 [a]

व्याख्या:-

The digits of a two-digit number are x (tens) and y (units).

So, the original number = 10x+y

number formed by reversing the digits = 10y+x

The sum of the numbers is 99.

$$(10x+y)+(10y+x)=99$$

$$11x+11y=99$$

$$x+y=9 \text{ (Equation 1)}$$

The difference of marks is 7.

$$|x-y|=7$$

$$x-y=7 \text{ (Equation 2)}$$

Adding equations 1 and 2 =

$$(x+y)+(x-y)=9+7$$

$$2x=16 \Rightarrow x=8$$

Putting the value of x in equation 1, $8+y=9 \Rightarrow y=1$

$$\text{Number} = 10(8)+1=81$$

52. Simplify $(1 - \sec^2\theta)(1 - \sin\theta)(1 + \sin\theta)(1 + \cot^2\theta)$.

(a) 2

(b) 0

(c) 1

(d) -1

[d]

व्याख्या:-

We will use trigonometric identities:

$$1 - \sec^2 q = -\tan^2 q$$

$$(1 - \sin q)(1 + \sin q) = 1 - \sin^2 q = \cos^2 q$$

$$1 + \cot^2 q = \operatorname{cosec}^2 q$$

On substituting the expression :

$$(-\tan^2 q)(\cos^2 q)(\operatorname{cosec}^2 q)$$

On further simplifying,

$$-\left(\frac{\sin^2 q}{\cos^2 q}\right)(\cos^2 q)\left(\frac{1}{\sin^2 q}\right)$$

All terms are crossed out, remainder is: -1

53. Select the number from the given options that can replace the question mark (?) in the following series.

175 221 267 313 359 ?

(a) 429

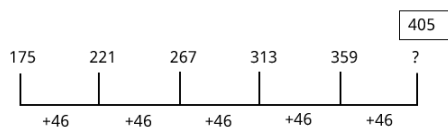
(b) 413

(c) 405

(d) 431

[c]

व्याख्या:-



$$? = 405$$

54. Who among the following won the gold medal at the 2020 Paralympics and the silver medal at the 2024 Paralympics in shooting?

(a) Rubina Francis

(b) Manish Narwal

(c) Pramod Bhagat

(d) Nishad Kumar

[b]

व्याख्या -

Manish Narwal, Indian para-shooter, won the gold medal in the mixed 50m pistol SH1 event at the 2020 Tokyo Paralympics. He achieved this feat by setting a Paralympic record with 218.2 points. Subsequently, at the 2024 Paris Paralympics, Manish won the silver medal in the men's 10m air

pistol SH1 event. He finished second with 234.9 points. The gold medal in this event was won by Jo Jongdu of Korea with 237.4 points.

Thus, Manish Narwal has made India proud in para-shooting by winning gold at the 2020 Paralympics and silver at the 2024 Paralympics.

55. Read the statements and conclusions given below carefully. You have to assume that the given statements are true even if they seem to be at variance with commonly known facts and decide which of the conclusions logically follows from the given statement(s).

Statement:

Some gold is silver.

Some silver is diamond.

Conclusion:

(I) Some diamonds are gold.

(II) Some silver are gold.

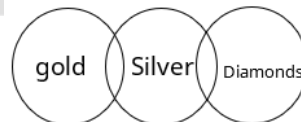
(a) Both conclusion (I) and (II) follow from the statements.

(b) Only conclusion (I) follows from the statements.

(c) Only conclusion (II) follows from the statements.

(d) Neither conclusion (I) nor (II) follows from the statements. [c]

व्याख्या:-



It is clear from the diagram that only conclusion (II) follows.

56. Which of the following household items does not use the heating effect of electric current?

(a) Electric water heater

(b) Electric stove (heater)

(c) Electric motor

(d) Electric iron box [c]

Explanation -

The household item which does not use the heating effect of electric current is the electric motor.

Thermal effect of electric current - When electric current passes through a resistor, heat is generated due to the resistance. This phenomenon is called the thermal effect of electric current. It is used in many household appliances where we need heat.

Electric water heater - It heats water using the thermal effect of electric current. It has a heating element which gets heated.

Electric stove (heater) - It also works on the thermal effect of electric current. Its heating coils heat up and provide heat for cooking food or heating rooms.

Electric iron box - It is also based on the thermal effect of electric current. It has a heating element which gets heated and helps in ironing clothes.

Electric motor - Electric motor converts electrical energy into mechanical energy. It works on the principle of magnetic effect of electric current. When electric current passes through a coil, a magnetic field is produced which causes the motor to rotate. Heat may be produced as a by-product, but its primary function is not to use the thermal effect.

57. The HCF of the numbers 310, 208 and 180 is:

- (a) 4
- (b) 8
- (c) 6
- (d) 2

[d]

व्याख्या:-

Numbers = 310, 208 and 180

HCF = Greatest Common Factor

The HCF of two or more numbers is the largest number that can divide each of the numbers without leaving a remainder.

Common factor of 310, 208 and 180,

Factors (310) = $2 \times 5 \times 31$

Factorization (208) = $2^4 \times 13$

Factorization (180) = $2^2 \times 3^2 \times 5$

Thus, the largest number that can divide each of the numbers without leaving a remainder is 2.

Hence, HCF (310, 208, 180) is 2.

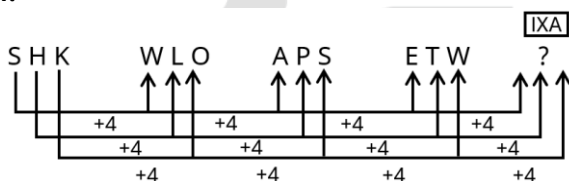
58. Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

SHK, WLO, APS, ETW, ?

- (a) IXB
- (b) IXA
- (c) JXA
- (d) IYA

[b]

व्याख्या:-



? = IXA

59. Choose the set in which the numbers are related in the same way as the numbers in the following sets.

(Note: Operations must be performed on whole numbers without breaking the numbers into their constituent digits. Ex. 13 - Operations on number 13 such as addition/subtraction/multiplying 13 etc. can be performed. Breaking 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(6, 13, 78)

(5, 22, 110)

(a) (8, 19, 162)

(b) (8, 12, 96)

(c) (24, 9, 206)

(d) (7, 13, 90)

[b]

व्याख्या:-

Just as

(6, 13, 78)

$6 \times 13 = 78$

and

(5, 22, 110)

$5 \times 22 = 110$

similarly

(8, 12, 96)

$8 \times 12 = 96$

60. P is 30% more efficient than Q. If they work together, how much time will it take to finish the work which P alone could have done in 23 days?

(a) $20\frac{3}{17}$ Day

(b) 10 Day

(c) 11 Day

(d) 13 Day

[d]

व्याख्या:-

Has been given :

A is 30% more efficient than B.

Total work = Efficiency \times Time

\therefore A is 30% more efficient than B.

If the efficiency of B is 10.

Therefore, the efficiency of A will be 13.

A alone can complete the work in 23 days.

Therefore, total work = (Efficiency of A \times Time taken by A)

\Rightarrow Total work = $13 \times 23 = 299$ units

Now, their efficiency when working together $\Rightarrow 13 + 10 = 23$

So, total time taken by A and B to complete the work

$\Rightarrow 299 \div 23 \Rightarrow 13$ days

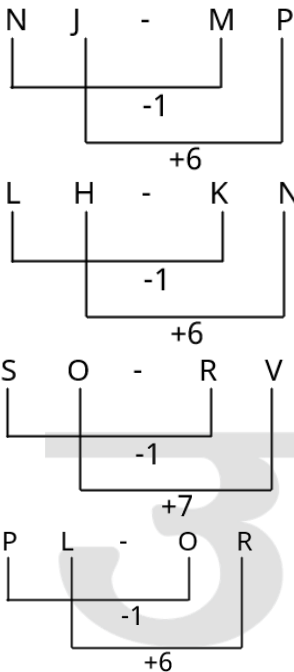
61. Three of the following four letter-cluster pairs are alike in a certain way based on the English

alphabetical order and thus form a group. Which pair does not belong to that group? (Note: The odd letter-cluster is not based on the number of consonants/vowels or their position in that letter-cluster.)

- (a) NJ-MP
- (b) LH-KN
- (c) SO-RV
- (d) PL-OR

[c]

व्याख्या:-



Hence, 'SO - RV' is different from the rest.

62. As of 2024, who among the following is currently the Governor of the Reserve Bank of India (RBI)?
- (a) Duvvuri Subbarao
 - (b) Raghuram Rajan
 - (c) Shaktikanta Das
 - (d) Urjit Patel

[c]

व्याख्या -

As of 2024, Shaktikanta Das was the Governor of the Reserve Bank of India (RBI). He took over as the 25th Governor of RBI on 12 December 2018. His term ended on 10 December 2024. During his tenure, he played a key role in maintaining economic stability through RBI's policies during the COVID-19 pandemic. He also provided guidance on financial inclusion, digital innovation, and helping the central bank deal with economic fluctuations. After him, Sanjay Malhotra was appointed the 26th Governor of RBI on 11 December 2024.

63. Two trains of equal length moving at speeds of 60 km/h and 40 km/h, when moving in the

same direction, take 50 seconds to cross each other. If they are moving in opposite directions, how much time will they take to cross each other?

- (a) 9 seconds
- (b) 10 seconds
- (c) 7 seconds
- (d) 8 seconds

[b]

व्याख्या:-

Moves:

60 km/h = 16.67 m/s

40 km/h = 11.11 m/s

Relative speed in one direction = 16.67 - 11.11 = 5.56 m/s

Crossing time = 50 sec

⇒ Total length = 5.56 × 50 = 278 m

Relative speed in opposite direction = 16.67 + 11.11 = 27.78 m/s

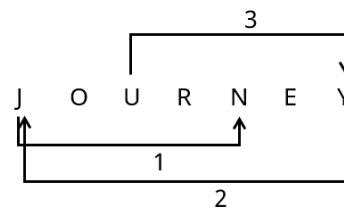
⇒ Time = 278 ÷ 27.78 ≈ 10 sec

64. How many such pairs of letters are there in the word JOURNEY, each of which has as many letters between them in the same order in the word as they have between them in the English alphabetical order?

- (a) four
- (b) two
- (c) three
- (d) one

[c]

व्याख्या:-



There are three pairs of words in the given group each of which has as many letters between them as there are in the English alphabet.

65. Which Kashmiri wood carver was awarded the Padma Shri award in 2024 for his contribution in the field of art?
- (a) Bashir Ahmad Mir
 - (b) Shri Ghulam Nabi Dar
 - (c) Abdul Rashid Khan
 - (d) Mohammad Yusuf

[b]

व्याख्या -

In 2024, Shri Ghulam Nabi Dar was honoured with the Padma Shri award for his outstanding contribution in the field of Kashmiri wood carving. Shri Dar started his art journey at the age of 10 and mastered traditional carving on Kashmiri walnut wood. His carvings reflect the natural

beauty and cultural heritage of Kashmir. His art has also been exhibited internationally, including in countries like Indonesia, Thailand, Baghdad, Liechtenstein and Germany. His works are preserved in national and international museums, galleries and private collections. This honour to Shri Dar recognises his contribution to the preservation and promotion of the traditional arts and crafts of Kashmir.

66. An order was placed for the supply of a carpet whose width was 6 m and length measured 1.44 times the width. What is the price of the carpet whose length and width are 40% more and 25% more respectively than the first carpet. [The price of the carpet is Rs. 45 per square metre.]

- (a) Rs 4216.20
(b) Rs 3642.60
(c) Rs 4082.40
(d) Rs 3868.80

[c]

व्याख्या:-

The width of the first carpet is 6 meters.
Length of first carpet = $6 \times 1.44 = 8.64$ m.
Width of the second carpet = $6 \times 1.25 = 7.5$ m.
Length of the second carpet = $8.64 \times 1.40 = 12.096$ m.
Area of the second carpet = $7.5 \times 12.096 = 90.72$ sq.m.
The price of the second carpet is Rs 4082.40.

67. Which of the following organisms does not reproduce asexually by fission?

- (a) Plasmodium
(b) Earthworm
(c) Leishmania
(d) Amoeba

[b]

Explanation -

Asexual reproduction is a method of biological reproduction in which new organisms are produced from a single parent, without any fusion of gametes or any sexual process. Offspring produced by this method are genetically identical to their parents, i.e. they are clones of their parents. Binary fission, Budding, Fragmentation, Multiple fission, Vegetative amplification |

Plasmodium - It reproduces asexually by multiple fission. One parent cell divides into many daughter cells.

Earthworm - Earthworm is a hermaphroditic organism that reproduces sexually. Although earthworm has the ability to regenerate (if the body is cut into two parts, new organisms can

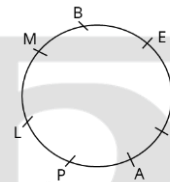
form), it is not asexual reproduction by fission. Reproduction is a repair or compensation process, not the primary reproductive method. Leishmania: It reproduces asexually by binary fission, but its binary fission occurs on a fixed longitudinal axis. Amoeba: It reproduces asexually by binary fission, where a parent cell divides into two identical daughter cells.

68. A, B, E, F, L, M and P are seated around a circular table facing the centre. Only three persons sit between P and E when counted from the left of P. Only three persons sit between M and A when counted from the right of A. L sits immediate right of M. F is the immediate neighbour of A as well as E. Who sits second to the left of B?

- (a) P
(b) A
(c) F
(d) E

[c]

व्याख्या:-



It is clear from the diagram that F is second to the left of B.

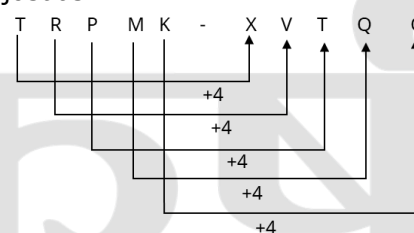
69. TRPMK is related to XVTQO in a certain way based on the English alphabetical order. In the same way, LJHEC is related to PNLIG. Following the same logic, KIGDB is related to which of the following options?

- (a) NLJGE
(b) OMKIF
(c) OMKHF
(d) OMKIG

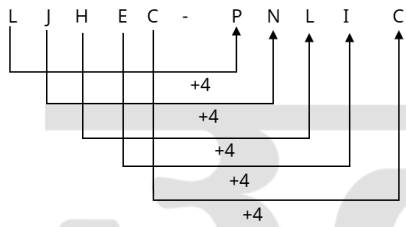
[c]

व्याख्या:-

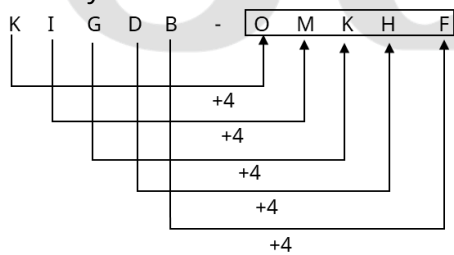
Just as



and



similarly



70. If a : b = 3 : 2 and b : c = 4 : 5, then a : b : c = ?
 (a) 4 : 5 : 3
 (b) 3 : 4 : 5
 (c) 6 : 4 : 5
 (d) 6 : 5 : 4

[c]

व्याख्या:-

a : b = 3 : 2, b : c = 4 : 5
 To make b equal to a:
 a : b = 3 × 2 : 2 × 2 = 6 : 4
 b : c = 4 : 5
 ⇒ a : b : c = 6 : 4 : 5

71. Which of the following metals cannot be cut with a knife?
 (a) Lithium
 (b) Sodium
 (c) Potassium
 (d) Copper

[d]

Explanation -

Some metals are so soft that they can be easily cut with a knife, while others are very hard. Lithium, Sodium and Potassium are all alkali metals. These are located at the extreme left of the periodic table and are known for their highly reactive and soft nature. They are so soft that they can be easily cut with a normal knife. Copper, on the other hand, is a transition metal. It is much harder than these alkali metals and cannot be cut with a knife. Copper is commonly used in electrical wiring, plumbing and various construction works, where its hardness and ductility are important.

72. 8 men and 12 women can build a wall in 10 days. 6 men and 8 women can build the same wall in 14 days. How much time will 2 women and 1 man take to build it together?
 (a) 70 days
 (b) 280 days

- (c) 140 days
 (d) 35 days

[a]

व्याख्या:-

8 men + 12 women → 10 days → 1 work
 ⇒ (8M + 12W) × 10 = 1
 ⇒ 8M + 12W = $\frac{1}{2}$(1)

6 men + 8 women → 14 days → 1 work
 ⇒ (6M + 8W) × 14 = 1
 ⇒ 6M + 8W = $\frac{1}{14}$(2)

put 1 to 1 to 2 to 1:

$$(1): 8M + 12W = \frac{1}{10}$$

$$(2): 6M + 8W = \frac{1}{14}$$

Now:

$$(1) \times 3: 24M + 36W = \frac{3}{10}$$

$$(2) \times 2: 12M + 16W = \frac{1}{7}$$

$$(12M + 36W) - (12M + 16W) = \frac{3}{10} - \frac{1}{7} \Rightarrow 12M + 20W = \frac{11}{70}$$

$$\Rightarrow 1M + 2W \text{ in 1 day} = \frac{11}{840}$$

$$2 \text{ women} + 1 \text{ man} = 1M + 2W = \frac{11}{840} \text{ daily}$$

$$\Rightarrow \text{Completed work} = \frac{1}{\frac{11}{840}} = \frac{840}{11} \approx 76.36 \text{ days}$$

73. Which of the following options is not an example of osmosis?

- (a) Swelling of raisins on soaking in water
 (b) Movement of O₂ and CO₂ in and out of a living cell
 (c) Obtaining water by unicellular freshwater organisms

Explanation -

Osmosis is the process in which water molecules move from a region of high water concentration to a region of low water concentration through a selectively permeable membrane until equilibrium is established. Obtaining water by unicellular freshwater organisms - Inside the cells of unicellular organisms (e.g. amoeba, paramecium) living in freshwater, the concentration of solute is usually higher (i.e., the concentration of water is lower) than in the freshwater outside.

As a result, water molecules enter the cell by osmosis. This is an example of osmosis.

74. The weights (in kg) of 9 members of a school cricket team are 50, 63, x, 62, 64, 48, 51, 55, 48. If the average weight is 56 kg, then the value of x will be _____.
- (a) 48
 - (b) 64
 - (c) 57
 - (d) 63
- [d]

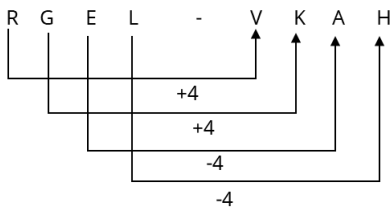
व्याख्या:-

Given weights (in kg): 50, 63, x, 62, 64, 48, 51, 55, 48
 Total number of observations (n) = 9
 Mean Weight = 56 kg
 $50, 63, x, 62, 64, 48, 51, 55, 48 = 56 \times 9$
 $441 + x = 504$
 $x = 63$

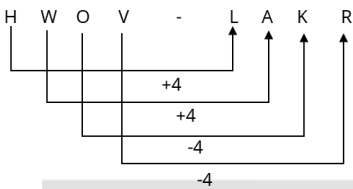
75. RGEL is related to VKAH in a certain way based on the English alphabetical order. In the same way, HWOV is related to LAKR. Following the same logic, TICJ is related to which of the following options?
- (a) XMYF
 - (b) XNYF
 - (c) XMZF
 - (d) XNYG
- [a]

व्याख्या:-

Just as



and



similarly

