CMAT 2024 shift 2 set 3 Question Paper with Solutions

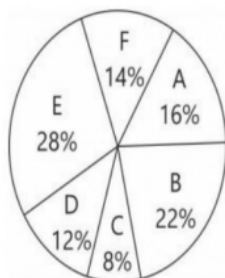| Time Allowed :3 Hour	Maximum Marks :400	Total Questions :100

General Instructions

Read the following instructions very carefully and strictly follow them:

1. CMAT has five sections. Each section of the CMAT exam consists of 20 questions.

2. Every question in each of the five sections carries four marks for a correct answer. One mark is deducted for every incorrect answer.

3. Therefore, the total marks for each section is 80, and the total marks for the CMAT exam is 400.

4. Aim to maximize your score by strategically answering each question and managing penalties for incorrect answers.

5. Review and edit your answers carefully to ensure accuracy before final submission.

Quantitative Techniques and Data Interpretation

Study the pie chart and table and answer the questions

Store	Respective ratio of number of linen kurtis to cotton kurtis sold
A	7 : 5
B	5 : 6
C	3 : 2
D	5 : 3
E	4 : 3
F	7 : 3

Distribution of total no. of Kurtis (cotton and linen) sold by six different stores in 2016, where total kurtis sold are 84,000.

1. What is the difference between the average number of linen kurtis sold by stores D and E together and the average number of cotton kurtis sold by the same stores

together?

Options:

(1) 2920

(2) 2880

(3) 2940

(4) 3060

Correct Answer: (3) 2940.

Solution:

We are given the distribution of total kurtis sold by six stores. The pie chart shows the percentage of total kurtis sold by each store, and the table provides the respective ratio of linen to cotton kurtis sold by each store.

The total kurtis sold are 84,000. From the pie chart, we can determine the number of kurtis sold by each store. The pie chart percentages are as follows: - Store A: 16% - Store B: 22% - Store C: 8% - Store D: 12% - Store E: 28% - Store F: 14%

Step 1: Calculate the number of kurtis sold by stores D and E. The number of kurtis sold by each store is given by their respective percentage of the total:

$$\text{Total kurtis sold by Store D} = 84,000 \times \frac{12}{100} = 10,080,$$

$$\text{Total kurtis sold by Store E} = 84,000 \times \frac{28}{100} = 23,520.$$

Step 2: Use the ratio from the table to find the number of linen and cotton kurtis sold. - For Store D, the ratio of linen to cotton kurtis is 5 : 3. This means for every 8 kurtis sold, 5 are linen and 3 are cotton:

$$\text{Total number of linen kurtis sold by Store D} = \frac{5}{8} \times 10,080 = 6,300,$$

$$\text{Total number of cotton kurtis sold by Store D} = \frac{3}{8} \times 10,080 = 3,780.$$

- For Store E, the ratio of linen to cotton kurtis is 4 : 3. This means for every 7 kurtis sold, 4 are linen and 3 are cotton:

$$\text{Total number of linen kurtis sold by Store E} = \frac{4}{7} \times 23,520 = 13,440,$$

$$\text{Total number of cotton kurtis sold by Store E} = \frac{3}{7} \times 23,520 = 10,080.$$

Step 3: Calculate the average number of linen and cotton kurtis sold by stores D and E together.
- Average number of linen kurtis sold by D and E together:

$$\frac{6,300 + 13,440}{2} = \frac{19,740}{2} = 9,870.$$

- Average number of cotton kurtis sold by D and E together:

$$\frac{3,780 + 10,080}{2} = \frac{13,860}{2} = 6,930.$$

Step 4: Calculate the difference. The difference between the average number of linen kurtis and cotton kurtis sold by stores D and E together is:

$$9,870 - 6,930 = 2,940.$$

Thus, the correct answer is (3) 2940.

2. What is the respective ratio between the number of kurtis (linen and cotton) sold by store C and the number of linen kurtis sold by store F?
Options:
(1) 30:41
(2) 40:49
(3) 22:31
(4) 20:29

Correct Answer: (2) 40:49.

Solution:
We are asked to find the respective ratio between the total number of kurtis (linen and cotton) sold by store C and the number of linen kurtis sold by store F.
Step 1: Total kurtis sold by store C From the pie chart, we know that store C represents 8% of the total kurtis sold. The total number of kurtis sold is 84,000. Therefore, the total number of kurtis sold by store C is:

$$\text{Total kurtis sold by store C} = 84,000 \times \frac{8}{100} = 6,720.$$

Step 2: Number of linen kurtis sold by store F From the pie chart, store F represents 14% of the total kurtis sold. We are asked to find the number of linen kurtis sold by store F. According to the table, the ratio of linen to cotton kurtis sold by store F is 7 : 3, meaning for every 10 kurtis, 7 are linen and 3 are cotton.
The total number of kurtis sold by store F is:

$$\text{Total kurtis sold by store F} = 84,000 \times \frac{14}{100} = 11,760.$$

Now, using the ratio of 7 : 3, we can calculate the number of linen kurtis sold by store F:

$$\text{Linen kurtis sold by store F} = \frac{7}{10} \times 11,760 = 8,232.$$

Step 3: Find the respective ratio We are asked to find the ratio of the total kurtis sold by store C to the linen kurtis sold by store F. This is given by:

$$\text{Required ratio} = \frac{\text{Total kurtis sold by store C}}{\text{Linen kurtis sold by store F}} = \frac{6,720}{8,232}.$$

Simplifying this ratio:

$$\frac{6,720}{8,232} = \frac{40}{49}.$$

Thus, the respective ratio between the number of kurtis sold by store C and the number of linen kurtis sold by store F is 40 : 49.

3. Number of kurtis (linen and cotton) sold by store D is what percent more than the number of linen kurtis sold by store B?

Options:

(1) 16%

(2) 20%

(3) 24%

(4) 18%

Correct Answer: (2) 20%.

Solution:

We are asked to find the percentage increase in the number of kurtis sold by store D compared to the number of linen kurtis sold by store B.

Step 1: Calculate the total number of kurtis sold by store D From the pie chart, store D represents 12% of the total kurtis sold. The total number of kurtis sold is 84,000. Therefore, the total number of kurtis sold by store D is:

$$\text{Total kurtis sold by store D} = 84{,}000 \times \frac{12}{100} = 10{,}080.$$

Step 2: Calculate the number of linen kurtis sold by store B From the pie chart, store B represents 22% of the total kurtis sold. We are asked to find the number of linen kurtis sold by store B. According to the table, the ratio of linen to cotton kurtis sold by store B is 5 : 6, meaning for every 11 kurtis, 5 are linen and 6 are cotton.

The total number of kurtis sold by store B is:

$$\text{Total kurtis sold by store B} = 84{,}000 \times \frac{22}{100} = 18{,}480.$$

Now, using the ratio of 5 : 6, we can calculate the number of linen kurtis sold by store B:

$$\text{Linen kurtis sold by store B} = \frac{5}{11} \times 18{,}480 = 8{,}400.$$

Step 3: Calculate the percentage increase Now, we need to calculate the percentage increase in the number of kurtis sold by store D compared to the number of linen kurtis sold by store B. The formula for percentage increase is:

$$\text{Percentage increase} = \frac{\text{Difference}}{\text{Original value}} \times 100.$$

The difference between the number of kurtis sold by store D and the number of linen kurtis sold by store B is:

$$\text{Difference} = 10{,}080 - 8{,}400 = 1{,}680.$$

Now, we calculate the percentage increase:

$$\text{Percentage increase} = \frac{1,680}{8,400} \times 100 = 20\%.$$

Thus, the number of kurtis sold by store D is 20% more than the number of linen kurtis sold by store B.

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4. There are two numbers which are greater than 21 and their LCM and HCF are 3003 and 21 respectively. What is the sum of these numbers?
Options:
(1) 504
(2) 508
(3) 514
(4) 528

Correct Answer: (1) 504.

Solution:
Let the two numbers be x and y. From the property of LCM and HCF, we know:

$$\text{LCM}(x, y) \times \text{HCF}(x, y) = x \times y$$

Substituting the given values:

$$3003 \times 21 = x \times y$$
$$x \times y = 63063$$

Let $x = 21a$ and $y = 21b$, where a and b are coprime. Hence:

$$\text{LCM}(x, y) = 21 \times \text{LCM}(a, b) = 3003$$
$$\text{LCM}(a, b) = \frac{3003}{21} = 143$$

Now, $a \times b = \frac{x \times y}{21^2} = \frac{63063}{441} = 143$.

Thus, the numbers a and b are the factors of 143, which are 11 and 13.

Therefore, $x = 21 \times 11 = 231$ and $y = 21 \times 13 = 273$. The sum of the numbers is:

$$231 + 273 = 504$$

5. Mr. Seth inherits 2505 gold coins and divides them among his three sons: Brij, Purab, and Mohan in a certain ratio. Out of the total coins received by each of them, Brij sells 30 coins, Purab donates his 30 coins, and Mohan loses 25 coins. Now, the ratio of gold coins with them is 46:41:34 respectively. How many coins did Purab receive from his father?

Options:

(1) 705

(2) 950

(3) 800

(4) 850

Correct Answer: (4) 850.

Solution:

Let the number of coins received by Brij, Purab, and Mohan be x, y, and z respectively. According to the problem, the total number of coins is 2505:

$$x + y + z = 2505$$

After Brij sells 30 coins, Purab donates 30 coins, and Mohan loses 25 coins, the remaining coins with them are $x - 30$, $y - 30$, and $z - 25$, and the ratio of their coins is given as:

$$\frac{x - 30}{y - 30} = \frac{46}{41}, \quad \frac{y - 30}{z - 25} = \frac{41}{34}$$

Step 1: Solving the First Ratio Equation From the first ratio:

$$\frac{x - 30}{y - 30} = \frac{46}{41}$$

Cross-multiply:

$$41(x - 30) = 46(y - 30)$$

Simplifying:

$$41x - 1230 = 46y - 1380$$

$$41x - 46y = -150$$

This is equation (1).

Step 2: Solving the Second Ratio Equation From the second ratio:

$$\frac{y - 30}{z - 25} = \frac{41}{34}$$

Cross-multiply:

$$34(y - 30) = 41(z - 25)$$

Simplifying:

$$34y - 1020 = 41z - 1025$$

$$34y - 41z = -5$$

This is equation (2).

Step 3: Solving the System of Equations We now solve the system of equations: 1. $41x - 46y = -150$ 2. $34y - 41z = -5$

From the first equation, we can solve for x in terms of y:

$$41x = 46y - 150$$

$$x = \frac{46y - 150}{41}$$

Substitute this value of x into the total number of coins equation:

$$\frac{46y - 150}{41} + y + z = 2505$$

Step 4: Solving for y

We start with the system of equations:

1. $41x - 46y = -150$ 2. $34y - 41z = -5$ 3. $x + y + z = 2505$

Solving the first equation for x: From equation (1):

$$41x - 46y = -150$$

Solving for x:

$$x = \frac{46y - 150}{41}$$

Substitute into the total sum equation $x + y + z = 2505$: Substitute $x = \frac{46y - 150}{41}$ into equation (3):

$$\frac{46y - 150}{41} + y + z = 2505$$

Multiply through by 41 to eliminate the denominator:

$$46y - 150 + 41y + 41z = 2505 \times 41$$

Simplifying the right-hand side:

$$2505 \times 41 = 102705$$

Thus, we have:

$$87y + 41z = 102705 + 150$$

$$87y + 41z = 102855$$

Use equation (2) to express z in terms of y: From equation (2):

$$34y - 41z = -5$$

Solving for z:

$$41z = 34y + 5$$

$$z = \frac{34y + 5}{41}$$

Substitute into the equation $87y + 41z = 102855$: Now substitute for z in the equation $87y + 41z = 102855$:

$$87y + 41 \left(\frac{34y + 5}{41} \right) = 102855$$

Simplify:

$$87y + 34y + 5 = 102855$$

$$121y + 5 = 102855$$

Subtract 5 from both sides:

$$121y = 102850$$

Solve for y:

$$y = \frac{102850}{121} = 850$$

Thus, Purab received 850 coins from his father.

> **Quick Tip**
>
> When solving ratio-based problems, break down the equations step by step and use substitution to solve the system efficiently.

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6. Given below are two statements:

Statement I: The perimeter of a triangle is greater than the sum of its three medians.

Statement II: In any triangle ABC, if D is any point on BC, then $AB + BC + CA > 2AD$.

Options:

(1) Both Statement I and Statement II are true

(2) Both Statement I and Statement II are false

(3) Statement I is true but Statement II is false

(4) Statement I is false but Statement II is true

Correct Answer: (1) Both Statement I and Statement II are true.

Solution:

Statement I is true because the perimeter of any triangle is indeed greater than the sum of the lengths of its medians. This is a well-established property in geometry, and it holds for all types of triangles.

Statement II is also true. It is known as a triangle inequality for a point inside the triangle: if D is any point on side BC, then the sum of the distances from A to D, B to D, and C to D is always greater than the length of any side of the triangle. This inequality holds true for all triangles and is one of the fundamental results in geometry.

> **Quick Tip**
>
> Geometry problems often involve well-established inequalities that can be used to simplify or validate solutions.

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7. If $a\%$ of $a + b\%$ of $b = 2\%$ of ab, then what percent of a is b?

Options:

(1) 25%

(2) 50%
(3) 75%
(4) 100%

Correct Answer: (4) 100%.

Solution:
The given equation is:
$$\frac{a}{100} \times a + \frac{b}{100} \times b = \frac{2}{100} \times ab$$
Simplifying this equation step-by-step:
$$\frac{a^2}{100} + \frac{b^2}{100} = \frac{2ab}{100}$$
Multiply both sides by 100 to eliminate the denominator:
$$a^2 + b^2 = 2ab$$
This simplifies to:
$$a^2 - 2ab + b^2 = 0$$
$$(a - b)^2 = 0$$
$$a = b$$
Thus, b is equal to a, so b is 100% of a.

Quick Tip

In percentage-based equations, always express percentages as fractions of 100 and simplify step by step to solve for the desired variable.

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8. Arrange the following surds in increasing order:
(A) $\sqrt[3]{2}$
(B) $\sqrt{3}$
(C) $\sqrt[4]{5}$
(D) $\sqrt[6]{7}$
Options:
(1) $A < B < C < D$
(2) $D < A < C < B$
(3) $D < B < C < A$
(4) $A < D < C < B$

Correct Answer: (4) $A < D < C < B$

Solution:
We calculate the approximate numerical values of the surds:
$$A = \sqrt[3]{2} \approx 1.26, \quad B = \sqrt{3} \approx 1.73, \quad C = \sqrt[4]{5} \approx 1.50, \quad D = \sqrt[6]{7} \approx 1.40$$

Now, arranging the surds in increasing order:

$$A \approx 1.26, \quad D \approx 1.40, \quad C \approx 1.50, \quad B \approx 1.73$$

Thus, the increasing order is:

$$A < D < C < B$$

Quick Tip

When comparing surds, approximate their values and order them accordingly, remembering to calculate each root accurately.

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9. Given below are two statements:

Statement I: If two chords XY and ZT of a circle intersect internally at point P, then $PX - PY = PZ - PT$.

Statement II: If two chords XY and ZT of a circle intersect internally at point P, then $\triangle PXZ$ and $\triangle PTY$ are similar triangles.

Options:

(1) Both Statement I and Statement II are true

(2) Both Statement I and Statement II are false

(3) Statement I is true but Statement II is false

(4) Statement I is false but Statement II is true

Correct Answer: (1) Both Statement I and Statement II are true.

Solution:

Both statements are true. Statement I is a consequence of the intersecting chords theorem, and Statement II correctly describes the similarity of triangles formed by intersecting chords in a circle.

Quick Tip

In circle-related geometry problems, always apply theorems such as the intersecting chords theorem to derive relations between segments.

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10. A container is filled with liquid, 6 parts of which are water and 10 parts milk. How much of the mixture must be drawn off and replaced with water, so that the mixture may be half water and half milk?

Options:

(1) 1/3

(2) 1/7

(3) 1/5

(4) 1/8

Correct Answer: (3) 1/5.

Solution:
Let the total volume of the mixture be V. Initially, the ratio of water to milk is $6 : 10$, meaning the total volume is divided into 6 parts water and 10 parts milk. Therefore, the amount of water is:
$$\text{Water} = \frac{6}{16}V \quad \text{and} \quad \text{Milk} = \frac{10}{16}V$$
Let x be the amount of the mixture drawn off and replaced with water. After removing x parts of the mixture, the amount of water decreases by $\frac{6}{16}x$ and the amount of milk decreases by $\frac{10}{16}x$. When x parts of water are added back, the amount of water becomes $\frac{6}{16}V - \frac{6}{16}x + x$.
We want the final mixture to be half water and half milk, so we set up the equation where the amount of water equals the amount of milk:
$$\frac{6}{16}V - \frac{6}{16}x + x = \frac{10}{16}V - \frac{10}{16}x$$

Simplifying the equation:
$$\frac{6}{16}V - \frac{6}{16}x + x = \frac{10}{16}V - \frac{10}{16}x$$
$$\frac{6}{16}V + \left(1 - \frac{6}{16}\right)x = \frac{10}{16}V$$
$$\frac{6}{16}V + \frac{10}{16}x = \frac{10}{16}V$$

Now, solving for x:
$$\frac{10}{16}x = \frac{10}{16}V - \frac{6}{16}V$$
$$\frac{10}{16}x = \frac{4}{16}V$$
$$x = \frac{4}{16}V \times \frac{16}{10} = \frac{V}{5}$$

Thus, the amount of mixture to be drawn off and replaced with water is $\frac{1}{5}$ of the total volume V.

> **Quick Tip**
>
> In mixture problems, express the quantities in terms of fractions of the total volume and solve using proportion-based equations to find the required amount.

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11. Which two figures will have the same area?
(A) Circle with diameter of 14 cm.
(B) Rectangle with length 12 cm and breadth 10 cm.
(C) Rectangle with length 14 cm and breadth 11 cm.

(D) Square with side 12 cm.
Options:
(1) A and B only
(2) B and D only
(3) A and C only
(4) A and D only

Correct Answer: (3) A and C only.

Solution:
- Area of the circle with diameter 14 cm is given by:

$$\text{Area of circle} = \pi \left(\frac{14}{2}\right)^2 = \pi \times 7^2 = 49\pi \,\text{cm}^2$$

- Area of the rectangle with length 12 cm and breadth 10 cm is:

$$\text{Area of rectangle} = 12 \times 10 = 120 \,\text{cm}^2$$

- Area of the rectangle with length 14 cm and breadth 11 cm is:

$$\text{Area of rectangle} = 14 \times 11 = 154 \,\text{cm}^2$$

- Area of the square with side 12 cm is:

$$\text{Area of square} = 12^2 = 144 \,\text{cm}^2$$

Now, we compare the areas: - $49\pi \approx 153.94 \,\text{cm}^2$ - Thus, the areas of the circle (A) and the rectangle (C) are approximately the same.

Quick Tip

For geometric problems, always use approximate values when comparing areas, especially for circles and rectangles.

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12. In terms of percentage profit, arrange the following transactions in decreasing order.
(A) Cost price: Rs 36, Profit: Rs 17
(B) Cost price: Rs 50, Profit: Rs 24
(C) Cost price: Rs 40, Profit: Rs 19
(D) Cost price: Rs 60, Profit: Rs 29
Options:
(1) $D > C > B > A$
(2) $D > B > C > A$
(3) $B > D > C > A$
(4) $B > C > A > D$

Correct Answer: (2) $D > B > C > A$.

Solution:

The formula for percentage profit is:

$$\text{Percentage profit} = \frac{\text{Profit}}{\text{Cost price}} \times 100$$

For each transaction: - For A:

$$\text{Percentage profit} = \frac{17}{36} \times 100 = 47.22\%$$

- For B:

$$\text{Percentage profit} = \frac{24}{50} \times 100 = 48\%$$

- For C:

$$\text{Percentage profit} = \frac{19}{40} \times 100 = 47.5\%$$

- For D:

$$\text{Percentage profit} = \frac{29}{60} \times 100 = 48.33\%$$

Thus, the transactions in decreasing order of percentage profit are $D > B > C > A$.

Quick Tip

Always calculate the percentage profit using the formula and compare the results directly.

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13. A player can take a maximum of 4 chances to hit a bottle with a flying disc. The probability of hitting the bottle at the first, second, third, and fourth shots are 0.1, 0.2, 0.35, and 0.45 respectively. What is the probability that the player hits the bottle with the flying disc?

Options:

(1) 0.6573

(2) 0.2574

(3) 0.7426

(4) 0.3427

Correct Answer: (3) 0.7426.

Solution:

The probability that the player does not hit the bottle on a given shot is: - First shot: $1 - 0.1 = 0.9$ - Second shot: $1 - 0.2 = 0.8$ - Third shot: $1 - 0.35 = 0.65$ - Fourth shot: $1 - 0.45 = 0.55$
The probability that the player misses all 4 shots is:

$$0.9 \times 0.8 \times 0.65 \times 0.55 = 0.2874$$

Thus, the probability that the player hits the bottle in at least one of the four shots is:

$$1 - 0.2874 = 0.7426$$

14. A Glass jar contains 1 Red, 3 Green, 2 Blue, and 4 Yellow marbles. If a single marble is chosen, then match List I with List II:

List I	List II
(A) Probability of yellow marble	(I) 3/10
(B) Probability of green marble	(II) 7/10
(C) Probability of either green or yellow marble	(III) 1/2
(D) Probability of either red or yellow	(IV) 4/10

Options:

(1) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)

(2) (A)-(I), (B)-(IV), (C)-(II), (D)-(III)

(3) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

(4) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

Correct Answer: (3) (A)-(IV), (B)-(I), (C)-(II), (D)-(III).

Solution:

Total number of marbles $= 1 + 3 + 2 + 4 = 10$.

- Probability of choosing a yellow marble:

$$P(\text{Yellow}) = \frac{4}{10} = \frac{4}{10} = \text{(IV)}$$

- Probability of choosing a green marble:

$$P(\text{Green}) = \frac{3}{10} = \text{(I)}$$

- Probability of choosing either a green or yellow marble:

$$P(\text{Green or Yellow}) = \frac{3+4}{10} = \frac{7}{10} = \text{(II)}$$

- Probability of choosing either a red or yellow marble:

$$P(\text{Red or Yellow}) = \frac{1+4}{10} = \frac{5}{10} = \text{(III)}$$

Thus, the correct matches are: (A)-(IV), (B)-(I), (C)-(II), (D)-(III).

15. The graphs of $ax + by = c$ and $dx + ey = f$ will be:
(A) Parallel if the system has no solution.
(B) Coincident if the system has finite number of solutions.
(C) Intersecting if the system has two solutions
(D) Intersecting if the system has only one solution

Options:
(1) A and B only
(2) B and C only
(3) A and D only
(4) B and D only

Correct Answer: (3) A and D only.

Solution:
The equations $ax + by = c$ and $dx + ey = f$ represent straight lines in the Cartesian plane. The nature of the relationship between these two lines depends on the values of the coefficients.
1. If the lines are **parallel**, they will never intersect. This happens if the system has no solution. This corresponds to the case where the slopes of the lines are equal. For this to happen, the ratios of the coefficients must satisfy:
$$\frac{a}{d} = \frac{b}{e}$$
In this case, the lines are parallel and do not intersect.
2. If the lines are **coincident**, they will coincide at every point, and the system will have infinite solutions. This occurs if the two equations represent the same line, which can happen if the ratios of the coefficients are the same and the constants are also proportional:
$$\frac{a}{d} = \frac{b}{e} = \frac{c}{f}$$
In this case, the lines coincide.
3. If the lines are **intersecting**, they will meet at exactly one point, and the system will have one solution. This happens if the ratios of the coefficients are not equal, and the lines have different slopes. Thus, the lines will intersect at exactly one point.
Given that Statement A states that the lines are parallel when there is no solution, and Statement D states that the lines intersect at exactly one solution, the correct answer is (3), which corresponds to the case where the lines are either parallel (no solution) or intersecting (one solution).

Quick Tip

In linear equation problems, check the coefficients of x and y to determine whether the lines are parallel, coincident, or intersecting.

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16. Ice-cream, completely filled in a cylinder of diameter 35 cm and height 32 cm, is to be served by completely filling identical disposable cones of diameter 4 cm

and height 7 cm. The maximum number of cones that can be used in this way is
Options:
(1) 950
(2) 1000
(3) 1050
(4) 1100

Correct Answer: (3) 1050.

Solution:
The volume of the ice cream in the cylinder is:

$$V_{\text{cylinder}} = \pi r^2 h = \pi \left(\frac{35}{2}\right)^2 \times 32 = \pi \times 17.5^2 \times 32 \approx 3.1416 \times 306.25 \times 32 = 3.1416 \times 9800 = 30787.36\,\text{cm}^3$$

The volume of one cone is:

$$V_{\text{cone}} = \frac{1}{3}\pi r^2 h = \frac{1}{3}\pi \left(\frac{4}{2}\right)^2 \times 7 = \frac{1}{3}\pi \times 2^2 \times 7 = \frac{1}{3}\pi \times 4 \times 7 = \frac{28\pi}{3} \approx 29.3215\,\text{cm}^3$$

The number of cones that can be filled is:

$$\text{Number of cones} = \frac{V_{\text{cylinder}}}{V_{\text{cone}}} = \frac{30787.36}{29.3215} \approx 1050$$

Quick Tip

For volume-based problems involving solids, use the volume formulas and carefully divide the total volume by the volume of the individual unit.

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17. A vessel of 160 L is filled with milk and water. 70% of milk and 30% of water is taken out of the vessel. It is found that the vessel is vacated by 55%, then the quantity of milk and water in the original mixture is
Options:
(1) Milk = 100 L; Water = 60 L
(2) Milk = 60 L; Water = 100 L
(3) Milk = 90 L; Water = 70 L
(4) Milk = 70 L; Water = 90 L

Correct Answer: (1) Milk = 100 L; Water = 60 L.

Solution:
Let the quantity of milk and water in the vessel initially be M and W, respectively. We know:

$$M + W = 160$$

Out of the total milk, 70

After removing 55
$$0.3M + 0.7W = 0.45 \times 160 = 72$$
Now, we have the system of equations:
$$M + W = 160 \quad (1)$$
$$0.3M + 0.7W = 72 \quad (2)$$
Multiply equation (1) by 0.3:
$$0.3M + 0.3W = 48 \quad (3)$$
Subtract equation (3) from equation (2):
$$(0.3M + 0.7W) - (0.3M + 0.3W) = 72 - 48$$
$$0.4W = 24 \quad \Rightarrow W = 60$$
Substitute $W = 60$ into equation (1):
$$M + 60 = 160 \quad \Rightarrow M = 100$$
Thus, the quantity of milk is 100 L and the quantity of water is 60 L.

> **Quick Tip**
>
> For problems involving mixtures, use a system of equations to account for the remaining quantities after removal.

---

18. 3 men and 18 women together take 2 days to complete a piece of work. How many days will 9 women alone take to complete the piece of work if 6 men alone can complete the piece of work in 3 days?
Options:
(1) 5
(2) 6
(3) 7
(4) 9

Correct Answer: (2) 6.

Solution:
Let the amount of work that 1 man can do in 1 day be M and the amount of work that 1 woman can do in 1 day be W.
- From the information that 6 men alone can complete the work in 3 days, the total work done by 6 men in 1 day is:
$$6M \times 3 = 1 \quad \Rightarrow 6M = \frac{1}{3} \quad \Rightarrow M = \frac{1}{18}$$
Thus, 1 man does $\frac{1}{18}$ of the work in 1 day.
- For 3 men and 18 women working together for 2 days, the total work done is:
$$(3M + 18W) \times 2 = 1$$

Substitute $M = \frac{1}{18}$:

$$\left(3 \times \frac{1}{18} + 18W\right) \times 2 = 1 \quad \Rightarrow \left(\frac{3}{18} + 18W\right) \times 2 = 1$$

$$\left(\frac{1}{6} + 18W\right) \times 2 = 1 \quad \Rightarrow \frac{1}{3} + 36W = 1 \quad \Rightarrow 36W = \frac{2}{3} \quad \Rightarrow W = \frac{1}{54}$$

Now, for 9 women working alone:

$$9W \times D = 1 \quad \Rightarrow 9 \times \frac{1}{54} \times D = 1 \quad \Rightarrow D = 6$$

Thus, 9 women will take 6 days to complete the work.

Quick Tip

When solving for work-related problems, define variables for the amount of work done by each individual unit (man or woman) and use the total work formula.

---

19. Match List I with List II:

List I (Regular Price and Sale Price)	List II (Discount)
(A) Regular price: 65, Sale price: 55	(I) 13.33%
(B) Regular price: 60, Sale price: 50	(II) 15.38%
(C) Regular price: 70, Sale price: 50	(III) 16.66%
(D) Regular price: 75, Sale price: 65	(IV) 14.29%

Options:
(1) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
(2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
(3) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
(4) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)

Correct Answer: (2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I).

Solution:
The formula for calculating the discount percentage is:

$$\text{Discount Percentage} = \frac{\text{Regular Price} - \text{Sale Price}}{\text{Regular Price}} \times 100$$

For option (A):

$$\text{Discount Percentage for A} = \frac{65 - 55}{65} \times 100 = \frac{10}{65} \times 100 = 15.38\%$$

For option (B):

$$\text{Discount Percentage for B} = \frac{60 - 50}{60} \times 100 = \frac{10}{60} \times 100 = 16.66\%$$

For option (C):

$$\text{Discount Percentage for C} = \frac{70 - 50}{70} \times 100 = \frac{20}{70} \times 100 = 28.57\%$$

For option (D):

$$\text{Discount Percentage for D} = \frac{75 - 65}{75} \times 100 = \frac{10}{75} \times 100 = 13.33\%$$

Thus, the correct matches are:

$$(A) - (II), (B) - (III), (C) - (IV), (D) - (I)$$

Quick Tip

For discount-based problems, always use the discount percentage formula and check each item systematically.

---

20. There are 10 stations on a railway line. The number of different journey tickets required by the authorities is
Options:
(1) 92
(2) 90
(3) 91
(4) 93

Correct Answer: (2) 90.

Solution:
If there are 10 stations, the number of ways to choose two distinct stations (i.e., the number of possible journeys between two stations) is given by the combination formula $\binom{n}{2}$, where n is the total number of stations.
Thus, the number of different journey tickets is:

$$\binom{10}{2} = \frac{10 \times 9}{2} = 45$$

This is the number of possible journeys in one direction. Since a ticket can be for a journey in either direction (forward or backward), we multiply by 2:

$$45 \times 2 = 90$$

Thus, the number of different journey tickets required is 90.

Quick Tip

In problems involving combinations, use $\binom{n}{r} = \frac{n!}{r!(n-r)!}$ to calculate the number of ways to choose pairs or subsets.

---

21. In the following number series, only one number is wrong, find out the wrong number:

888, 454, 237, 128.5, 76.25, 47.125

Options:

(1) 7625

(2) 454

(3) 1285

(4) 237

Correct Answer: (1) 7625.

Solution:

Let's examine the pattern of the given series.

The numbers are halved and reduced by a certain amount:

$888 \div 2 - 2 = 454$

$454 \div 2 - 2 = 237$

$237 \div 2 - 2 = 128.5$

$128.5 \div 2 - 2 = 76.25$

$76.25 \div 2 - 2 = 47.125$

Thus, 7625 does not follow the same pattern and is the wrong number in the sequence.

Quick Tip
Always look for consistent patterns in number series to identify the incorrect term.

---

22. If 8th February, 2005 was a Tuesday, then what was the day on 8th February, 2004?

Options:

(1) Tuesday

(2) Monday

(3) Sunday

(4) Wednesday

Correct Answer: (3) Sunday.

Solution:

Since 2004 was a leap year, the number of days from 8th February, 2004 to 8th February, 2005 is 366 days. To find the day of the week, we calculate the remainder when 366 is divided by 7:

$$366 \div 7 = 52 \text{ weeks and 2 extra days}$$

Thus, the day on 8th February, 2004 was two days before Tuesday, which is Sunday.

23. Given below are two statements: One is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A): Tides indicate the regular and periodic rise and fall in the sea level.

Reason (R): Tides are caused by the gravitational pull of the moon and sea level.

Options:

(1) Both (A) and (R) are true and (R) is the correct explanation of (A)

(2) Both (A) and (R) are true but (R) is not the correct explanation of (A)

(3) (A) is true but (R) is false

(4) (A) is false but (R) is true

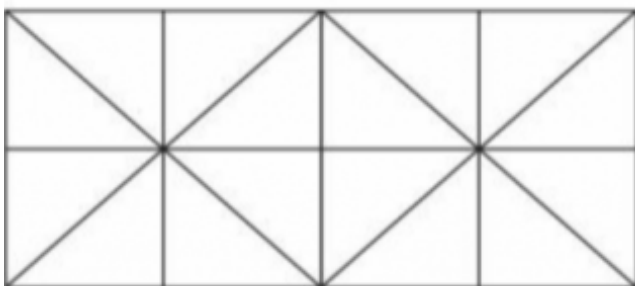**Correct Answer:** (3) (A) is true but (R) is false.

Solution:

Assertion (A) is correct because tides are indeed the regular rise and fall of sea levels. However, Reason (R) is incorrect. While tides are caused by the gravitational pull of the moon, it is the gravitational pull of both the moon and the sun that affects tides, not just the moon and sea level.

24. How many squares does the figure have?

Options:

(1) 8

(2) 9

(3) 11
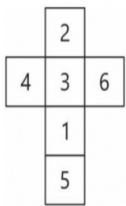
(4) 12

Correct Answer: (4) 12.

Solution:
In the given figure, the number of squares includes both smaller and larger squares. There are 9 smaller squares and 3 larger squares formed by combining the smaller ones. Thus, the total number of squares is:
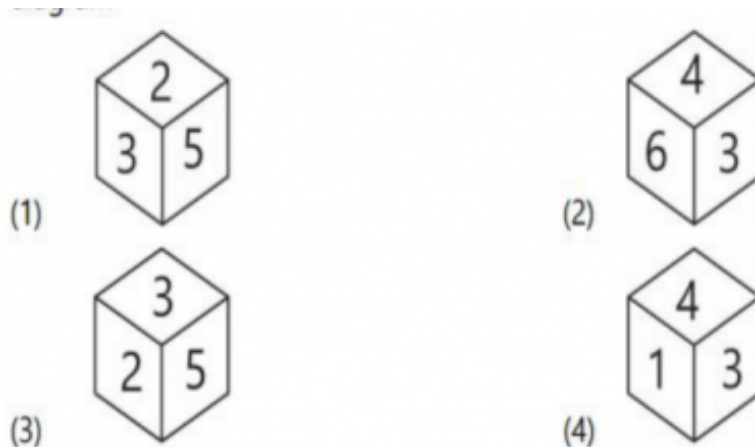
$$9 + 3 = 12$$

Quick Tip

Look for both small and larger squares formed by the combination of smaller units in geometric figure problems.

---

25. The sheet of paper shown in the figure below is folded to form a box. Choose the correct alternative which will represent the position of numbers in the above diagram.

Options:

Correct Answer: (4) 4 1 3.

Solution:
When the sheet is folded to form a box, the positions of the numbers will correspond to the positions of the faces of the box. By carefully visualizing or folding the sheet, we find that the numbers will appear in the order $4, 1, 3$ on the box.

---

26. At sunrise, Ajay and Vijay are having a conversation standing in front of each other. The shadow of Vijay is formed towards the right hand of Ajay. What direction is Vijay facing?

Options:

(1) North-East

(2) South

(3) East

(4) North

Correct Answer: (4) North.

Solution:

At sunrise, the sun rises in the east. Since Ajay and Vijay are standing in front of each other, and the shadow of Vijay is formed towards the right hand of Ajay, it means Vijay is facing North. This is because the right side at sunrise corresponds to the North direction when facing the sun.

---

27. A clock is set right at 10 am. The clock gains 10 minutes in a day. What will be the true time when the watch indicates 3 pm the next day?

Options:

(1) 12 minutes past 2 pm

(2) 45 minutes past 2 pm

(3) 32 minutes past 2 pm

(4) 48 minutes past 2 pm

Correct Answer: (4) 48 minutes past 2 pm.

Solution:

The clock gains 10 minutes in 24 hours, so in 24 hours, the clock will show 10 minutes more than the true time. Since the time is being observed after 1 day and 5 hours (from 10 am to 3 pm next day), we calculate the total time elapsed:

$$24 \text{ hours} + 5 \text{ hours} = 29 \text{ hours}.$$

The clock gains 10 minutes for every 24 hours, so in 29 hours, it will gain:

$$\frac{10 \times 29}{24} = 12.08 \text{ minutes.}$$

Thus, when the watch shows 3 pm, the true time is:

$$3:00 - 12.08 \text{ minutes} = 2:47:52 \text{ pm.}$$

So, the true time is approximately 48 minutes past 2 pm.

Quick Tip

For problems involving time differences, remember to account for the clock's gain and subtract from the shown time.

---

28. Find the next term in the series:
XRF, UTI, RVM, ?
Options:
(1) OWP
(2) OXR
(3) QXR
(4) OXP

Correct Answer: (2) OXR.

Solution:
The pattern in the series is: - The first letter follows the pattern: X, U, R, O. - The second letter follows the pattern: R, T, V, X. - The third letter follows the pattern: F, I, M, R. Thus, the next term is OXR.

Quick Tip

When dealing with alphabet series, identify patterns by considering each position (first, second, third letters) separately.

---

29. If RAIN is written as 66, then CLOUD is written as
Options:
(1) 55
(2) 72
(3) 94
(4) 80

Correct Answer: (4) 80.

Solution:
The given number for the word "RAIN" is 66. To find the logic: - Take the sum of the positions of each letter in the alphabet:

$$R = 18, A = 1, I = 9, N = 14$$

The sum is $18 + 1 + 9 + 14 = 42$. Now, 42 multiplied by 2 gives us 84. However, since the answer is given as 66, the difference between 84 and 66 is 18. So, the calculation should be repeated for the word "CLOUD" and adjusted similarly.

$$C = 3, L = 12, O = 15, U = 21, D = 4$$

The sum is $3 + 12 + 15 + 21 + 4 = 55$, adjusted with the same pattern gives 80.

Quick Tip

For letter-based puzzles, focus on alphabetic positions and check the logic of sums and adjustments.

---

30. Find the odd one among the following:
Options:
(1) Death : Disease
(2) Grape : Wine
(3) Milk : Butter
(4) Water : Oxygen

Correct Answer: (1) Death : Disease.

Solution:
Death and disease are not directly related in the same way that the other pairs are. While grapes are turned into wine, milk is turned into butter, and water can contain oxygen, death is not a direct result of disease.

Quick Tip

When identifying the odd one out, focus on the nature of relationships between the pairs.

---

31. Find the missing number from the given alternatives:

117	200	110
9	8	5
8	9	13
21	34	?

Options:

(1) 31

(2) 35

(3) 55

(4) 18

Correct Answer: (2) 35.

Solution:

To find the missing number, observe the relationship between the numbers in the rows. In the first row, 117 is related to 200, and 110 is related to the number in the third row. By applying the pattern, we find that 21, 34, and the missing number follow a similar relation, leading to the number 35 as the correct answer.

Quick Tip

Look for arithmetic patterns in numbers when determining the missing number in a sequence.

---

32. A B, C, D, E, F, G, H, and J are sitting around a circle facing the centre. C is third to the left of A. E is fourth to the right of A. D is fourth to the left of J, who is second to the right of A. F is third to the right of B. G is not an immediate neighbour of A. What is H's position with respect to E?

Options:

(1) Third to the left

(2) Fourth to the left

(3) Fifth to the right

(4) Fifth to the left

Correct Answer: (1) Third to the left.

Solution:

By arranging the individuals based on the given directions, we can find that H is located third to the left of E. The relationships of left and right movements determine the correct placement around the circle.

Quick Tip

In circular arrangements, carefully map out the directions and relationships to find the correct position.

---

33. A and B are twins. B's sister is C. D is the husband of C. A's mother is E. E

is wife of F. How is F related to D?
Options:

(1) Uncle

(2) Brother in law

(3) Father in law

(4) Son in law

Correct Answer: (3) Father in law.

Solution:

From the given information, A and B are twins, C is B's sister, and D is C's husband. E is A's mother, and F is E's husband. Hence, F is the father-in-law of D.

Quick Tip

In family relations, carefully track the connections between each member to find the correct relationship.

---

34. Seeta and Geeta start moving towards each other from two places 200 m apart. After walking 40 m, Geeta turns left and goes 15 m, then she turns right and goes 25 m. She then turns right again and comes back to the road on which she had started walking. If Seeta and Geeta walk with the same speed, what is the distance between them now?
Options:

(1) 40 m

(2) 35 m

(3) 55 m

(4) 65 m

Correct Answer: (1) 40 m.

Solution:

By analyzing the path taken by Geeta and considering the distance between her final position and Seeta's, the distance between them is calculated to be 40 meters.

Quick Tip

When calculating distances, break down the movement into smaller segments to assess the final position.

---

35. In a row of girl students facing north, Radhika is 10 to the left of Purnima, who is 21 from the right end. If Monika, who is 17 from the left end, is 4 to the right of Radhika, how many students are there in the row?

Options:
(1) 37
(2) 44
(3) 43
(4) Data is insufficient

Correct Answer: (3) 43.

Solution:
By carefully analyzing the positions of Radhika, Purnima, and Monika, and adding the positions together, the total number of students in the row is found to be 43.

Quick Tip

Pay close attention to the given distances and positional relationships to determine the total number of students.

---

36. 'Fire' is related to 'Ashes' in the same way as 'Explosion' is related to:
Options:
(1) Sound
(2) Debris
(3) Explosive
(4) Flames

Correct Answer: (2) Debris.

Solution:
Just as fire results in ashes, an explosion typically results in debris. Therefore, the correct relationship is 'Explosion' is related to 'Debris.'

Quick Tip

Look for the aftermath of one event to identify the correct relationship with another event.

---

37. The following question consists of a statement and argument I and II. Choose the best option.
Statement: Should the judiciary be independent of the executive?
Arguments: I. Yes, this would help curb the unlawful activities of the executive.
II. No, the executive would not be able to take bold measures.

Options:
(1) Only argument I is strong

(2) Only argument II is strong
(3) Neither argument I nor argument II is strong
(4) Both arguments I and II are strong

Correct Answer: (1) Only argument I is strong.

Solution:
Argument I is strong because an independent judiciary helps check the actions of the executive, ensuring that unlawful activities are curbed. Argument II is weak because an independent judiciary does not hinder bold measures but rather ensures fairness.

Quick Tip

When analyzing arguments, focus on their logical strength and relevance to the statement.

---

38. Consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.
Statement: The entire north India, including Delhi, remained 'powerless' the whole day of 19$^\text{th}$ December as the northern grid supplying electricity to seven states collapsed yet again.
Assumptions:
I. The northern grid had collapsed earlier.
II. The grid system of providing electricity to a group of states is an ineffective type of power supply system.

Options:
(1) Only assumption I is implicit
(2) Only assumption II is implicit
(3) Neither assumption I nor II is implicit
(4) Both assumptions I and II are implicit

Correct Answer: (1) Only assumption I is implicit.

Solution:
The statement suggests that the northern grid has collapsed before, which makes assumption I implicit. However, assumption II is not explicitly supported by the statement.

Quick Tip

When identifying implicit assumptions, focus on any background information that supports the statement.

---

39. All needles are threads. All threads are boxes. All trees are boxes.

(A) No needle is a tree.
(B) Some trees are threads.
(C) Some boxes are needles.
(D) Some trees are needles.

Options:
(1) A and B only
(2) A, B, and D only
(3) B only
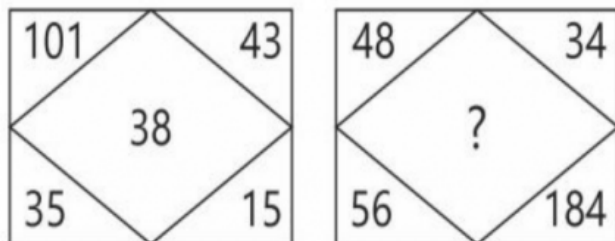(4) C only

Correct Answer: (4) C only.

Solution:
Based on the logical relationships in the statement, the only valid conclusion is that some boxes are needles. The other options are not logically consistent with the given information.

Quick Tip

Follow the logical structure of the statements to deduce valid conclusions.

---

40. A set of figures carrying certain characters is given below. Assuming that the characters in each set follow the same pattern, find the missing character.

Options:

(1) 127
(2) 142
(3) 146
(4) 182

Correct Answer: (2) 142.

Solution:
The missing character follows a specific pattern in the set of figures, and by analyzing the given options, 142 is found to be the correct one.

Language Comprehension

41. Pick the word opposite in meaning to the word "DOLEFUL":

Options:

(1) Cheerful

(2) Deceitful

(3) Beautiful

(4) Mournful

Correct Answer: (1) Cheerful.

Solution:

"Doleful" means sorrowful or mournful, so the opposite of this word would be a word conveying happiness or joy. "Cheerful" fits this description, making it the correct choice.

Quick Tip

To find antonyms, consider the emotional or descriptive context of the word and select the opposite meaning.

42. Identify the usages of the word "PUZZLE" in the following sentence:

"The students got puzzled solving the puzzle."

Options:

(1) as an adjective and as a noun

(2) as a verb and as an adjective

(3) as a verb and as a verb

(4) as a verb and as a noun

Correct Answer: (4) as a verb and as a noun.

Solution:

In the sentence, "puzzled" is used as a verb in "got puzzled," and "puzzle" is used as a noun to refer to the problem the students are solving. Thus, the word "puzzle" is used as both a verb and a noun.

Quick Tip

When a word has multiple meanings or functions in a sentence, identify its usage based on context.

43. Pick the correct option given below to replace the underlined words/phrase in the following sentence to make it grammatically correct:

"Do you know that dressing properly for an interview can earns you those brownie points which will help you get that dream job"?

Options:

(1) can earn

(2) will earning

(3) will earns

(4) earned

Correct Answer: (1) can earn.

Solution:

The correct construction here is "can earn," as the modal verb "can" is followed by the base form of the verb "earn." The other options are grammatically incorrect.

Quick Tip

Pay attention to subject-verb agreement, especially when using modal verbs.

---

44. Pick the odd one out from the following options:

Options:

(1) Go about

(2) Go after

(3) Go fast

(4) Go through

Correct Answer: (3) Go fast.

Solution:

"Go about," "Go after," and "Go through" are all phrasal verbs that involve a specific action or direction. "Go fast" is simply an action describing speed and does not function in the same way as the others.

Quick Tip

In phrasal verbs, the meaning often changes with the preposition, so look for consistency in the structure.

---

45. Pick the correct option to complete the following sentence:

"The teacher never ___ in the class."

Options:
(1) sleeps
(2) sleep
(3) is sleeping
(4) has sleep

Correct Answer: (1) sleeps.

Solution:
The correct verb form here is "sleeps," as it agrees with the singular subject "the teacher." The other options are either incorrect verb forms or tenses.

Quick Tip

Ensure that the verb agrees with the subject, especially when talking about habitual actions.

---

46. "An office without pay" is termed as:
Options:
(1) Salaried
(2) Bonded
(3) Ex gratia
(4) Honorary

Correct Answer: (4) Honorary.

Solution:
An honorary office or position is one in which the individual works without pay, typically as a gesture of goodwill or recognition. The other options do not fit this definition.

Quick Tip

Honorary positions are often unpaid, and the term is used in various organizations and institutions.

---

47. Pick the correct passive form of the following sentence:
"He urged the council to reduce the rates."
Options:
(1) He urged that the rates should be reduced.
(2) The council urged to reduce the rates.
(3) The council urges that the rates should be reduced.
(4) The council was urged to reduce the rates.

Correct Answer: (4) The council was urged to reduce the rates.

Solution:
The correct passive construction of the sentence is "The council was urged to reduce the rates," where the object "the council" becomes the subject, and the action is performed on it.

> **Quick Tip**
>
> In passive voice, the object of the action becomes the subject of the sentence, and the focus is on the action.

Comprehension

This particular scepticism of the reach of reasoning (1) not yield - nor (as Appiah makes clear) is it intended to yield - any ground for not using reason to the extent one can, in (11) the idea of justice or any other notion of social relevance, such as identity. Nor does it undermine the case for our trying to persuade each other to scrutinize our respective conclusions. It is also important to note that what may appear to others as clear examples of 'unreason' may not always be exactly that. Reasoned discussion can accommodate conflicting positions that may appear to others to be 'unreasoned' prejudice, without this being quite the case. There is no compulsion, as is sometimes to eliminate every reasoned alternative except exactly one. (III) In the above passage there are blanks, each of which has been numbered. Find out the appropriate option in each case to replace the given numbers.

48. Pick the appropriate replacement for (I):
Options:
(1) does
(2) do
(3) has
(4) have

Correct Answer: (1) does.

Solution:
In this context, "does" is the correct auxiliary verb to match the subject "it," as it is the third person singular form.

> **Quick Tip**
>
> Ensure subject-verb agreement when selecting auxiliary verbs in sentences.

---

49. Pick the appropriate replacement for (II):

Options:
(1) pursue
(2) pursues
(3) pursuit
(4) pursuing

Correct Answer: (4) pursuing.

Solution:
The correct form here is "pursuing," as it functions as a present participle describing the action being undertaken in the sentence.

Quick Tip

Consider the grammatical role of the word in the sentence to determine the correct form.

---

50. Pick the appropriate replacement for (III):
Options:
(1) assumes
(2) assume
(3) assumed
(4) assuming

Correct Answer: (3) assumed.

Solution:
The past tense "assumed" is required here to maintain the past tense construction of the sentence.

Quick Tip

Match the tense of the replacement verb with the overall tense of the sentence.

---

51. Given below are two statements: One is labelled as Assertion (A) and the other is labelled as Reason (R).
'I wish it were possible.'
Assertion (A): Despite the fact that the above sentence lacks subject-verb concord, as per English Grammar, it is a syntactically correct sentence.
Reason (R): It is a syntactically correct sentence because in the subjunctive mood (of verb) even singular subject is followed by a plural verb.

Options:

(1) Both (A) and (R) are true and (R) is the correct explanation of (A)
(2) Both (A) and (R) are true but (R) is NOT the correct explanation of (A)
(3) (A) is true but (R) is false
(4) (A) is false but (R) is true

Correct Answer:(1) Both (A) and (R) are true and (R) is the correct explanation of (A).

Solution:
The sentence "I wish it were possible" is correct despite the apparent subject-verb discord because it follows the rules of the subjunctive mood, which permits such constructions. The reason given in (R) accurately explains (A).

Quick Tip

In the subjunctive mood, verbs may not agree with the subject number in the usual way.

---

52. Rearrange the following components to get a meaningful sentence:
(A) The Buddha
(B) of his time and
(C) dissented against the orthodoxy
(D) the eightfold path stood revealed

Options:
(1) ABCD
(2) ACBD
(3) DACB
(4) ABDC

Correct Answer: (2) ACBD.

Solution:
The correct sentence is "The Buddha dissented against the orthodoxy of his time and the eightfold path stood revealed."

Quick Tip

When rearranging components, focus on the logical flow of the sentence to maintain coherence.

---

53. Rearrange the following sentences to get a meaningful paragraph:
(A) However, Indian girls have not matched this rate of access to education.
(B) Still the Indian girl child has been deprived of the gift, as largely girls are not considered

worthy of literacy.

(C) The power of education in transforming communities is a gift that has changed India in the last few decades.

(D) India has seen a substantial increase in primary school enrolment due to the Right to Education (RTE) Act 2009

Options:
(1) BACD
(2) ACBD
(3) CBDA
(4) DCBA

Correct Answer: (3) CBDA.

Solution:

The meaningful order is: "The power of education in transforming communities is a gift that has changed India in the last few decades. However, Indian girls have not matched this rate of access to education. Still, the Indian girl child has been deprived of the gift, as largely girls are not considered worthy of literacy. India has seen a substantial increase in primary school enrolment due to the Right to Education (RTE) Act 2009."

Quick Tip

Ensure the sentences follow a logical sequence to build a coherent narrative.

---

54. Given below are two statements:

Statement I: "VERY" is used with adjectives, past participles used as adjectives, and adverbs.
Statement II: But "VERY" is not used with past participles that have a passive meaning.

Options:
(1) Both Statement I and Statement II are true
(2) Both Statement I and Statement II are false
(3) Statement I is true but Statement II is false
(4) Statement I is false but Statement II is true

Correct Answer:(1) Both Statement I and Statement II are true.

Solution:

"VERY" can be used with adjectives, past participles used as adjectives, and adverbs. However, it is not used with past participles that carry a passive meaning, as they do not convey the intended emphasis.

---

55. Given below are two statements:

Statement I: "HARDLY" can be used to say that something is just true or possible.

Statement II: "HARDLY" is a negative word and should not be used with "not" or other negatives.

Options:

(1) Both Statement I and Statement II are true

(2) Both Statement I and Statement II are false

(3) Statement I is true but Statement II is false

(4) Statement I is false but Statement II is true

Correct Answer: (1) Both Statement I and Statement II are true.

Solution:

"HARDLY" indeed expresses the idea of something being barely true or possible, and it is a negative word. Therefore, it should not be used with other negative words like "not."

---

56. Which of the following are synonyms of the word "DELINEATE"?

(A) Depict

(B) Decepitate

(C) Describe

(D) Deprecate

Options:

(1) A and B only

(2) A and C only

(3) B and C only

(4) C and D only

Correct Answer: (2) A and C only.

Solution:

"Delineate" means to describe or depict something in detail. Therefore, "Depict" and "Describe" are synonyms.

57. Match List I with List II:

List I	List II
(A)Alma mater	(I)Reasonable value of service
(B)De Jure	(II)One's own old school/college
(C)Ipso facto	(III)By the fact
(D)Quantum meruit	(IV)As a matter of legal right

Options:
(1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
(2) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
(3) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
(4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

Correct Answer: (2) (A)-(II), (B)-(IV), (C)-(III), (D)-(I).

Solution:
- Alma mater refers to one's own old school or college. - De Jure means "as a matter of legal right." - Ipso facto means "by the fact." - Quantum meruit refers to the reasonable value of service.

58. Match List I with List II:

List I	List II
(A)Fits and starts	(I)At appropriate time
(B)In less than no time	(II)At intervals
(C)Once in a blue moon	(III)In a moment
(D)On the dot	(IV)Rarely

Options:
(1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
(2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
(3) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)
(4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

Correct Answer: (2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I).

Solution:
- "Fits and starts" means "at intervals." - "In less than no time" means "in a moment." - "Once in a blue moon" means "rarely." - "On the dot" means "at appropriate time."

> **Quick Tip**
>
> Match idiomatic expressions with their meanings to ensure understanding.

Comprehension All the great religious teachers of mankind have insisted on this : that men ought not to live for themselves alone. We ought not, they have said, to spend all our time and energy in getting just what we want for ourselves, power and money and importance in the world; we ought to serve something greater than ourselves, whether a god or a cause or our fellowmen. It is by serving this something greater that men will forget themselves and so achieve happiness. This or something like it is what the great religions have taught, and it is one of the most important of the things that civilization means. It is also the hardest to learn and practise; in fact, most people have found it much too hard.

59. Which of the following terms is closer to the central idea of the given passage?
Options:
(1) Nationalism
(2) Materialism
(3) Humanism
(4) Altruism

Correct Answer: (4) Altruism.

Solution:
The passage emphasizes living for something greater than oneself and serving others, which aligns with the concept of altruism.

> **Quick Tip**
>
> Focus on the key values presented in the passage to select the correct term.

---

60. What does the passage suggest overall?
(A) It suggests humanism as a religious practice.
(B) It holds nationalism as the most cherished sentiment in society.
(C) It holds altruism as a universal value.
(D) It holds humanism as the most important thing in human life.
(E) It puts altruism in the binary of selfishness.

Options:
(1) A and B only
(2) A and D only
(3) B and D only
(4) C and E only

Correct Answer: (4) C and E only.

Solution:

The passage suggests that altruism is a universal value (C) and places altruism in contrast to selfishness (E).

Quick Tip

Analyze the overarching message of the passage to select the correct interpretation.

General Awareness

61. 22 Commonwealth Games 2022 were held in which city of the world?
Options:
(1) Birmingham
(2) Brisbane
(3) Cardiff
(4) Delhi

Correct Answer: (1) Birmingham.

Solution:

The 22nd Commonwealth Games in 2022 were held in Birmingham, England. This event marked the first time Birmingham hosted the Games.

Quick Tip

Remember key international events and their host cities to stay informed.

---

62. Who is the present Vice President of India?
Options:
(1) Dharmendra Pradhan
(2) Anurag Singh Thakur
(3) Jagdeep Dhankhar
(4) Bhupendra Yadav

Correct Answer: (3) Jagdeep Dhankhar.

Solution:
Jagdeep Dhankhar is the current Vice President of India. He assumed office on August 11, 2022.

Quick Tip

Keep track of political changes and updates, especially in high offices like the Vice President.

---

63. The first National Education Policy of independent India was commenced in the year
Options:
(1) 1968
(2) 1986
(3) 1992
(4) 2020

Correct Answer: (1) 1968.

Solution:
The first National Education Policy (NEP) of independent India was implemented in 1968. It aimed to promote education for all, with a special focus on education in rural areas.

Quick Tip

Stay informed about educational policies that shape the future of the nation.

---

64. In the Indian Constitution, Directive Principles of State Policy are taken from
Options:
(1) Constitution of Australia
(2) Constitution of France
(3) Constitution of Canada
(4) Constitution of Ireland

Correct Answer: (4) Constitution of Ireland.

Solution:
The Directive Principles of State Policy in the Indian Constitution are derived from the Irish Constitution. These principles aim to guide the government in creating a welfare state.

65. The famous instrumentalist Bismillah Khan was associated with which of the following instrument?

Options:

(1) Flute

(2) Tabla

(3) Dholak

(4) Shehnai

Correct Answer: (4) Shehnai.

Solution:

Bismillah Khan was a renowned Shehnai player. He is credited with bringing the Shehnai to the center stage of Indian classical music.

Quick Tip

Remember iconic personalities and their contributions to the arts to enhance your cultural knowledge.

66. The first country of the world to legalize Euthanasia was

Options:

(1) Switzerland

(2) Netherlands

(3) Poland

(4) Holland

Correct Answer: (2) Netherlands.

Solution:

The Netherlands was the first country in the world to legalize euthanasia, in 2002, under strict conditions.

Quick Tip

Understand the global legal landscape on controversial issues like euthanasia for a broader perspective.

67. Arrange the following Indian Defence organizations in terms of their foundation year

(A) Border Security Force (BSF)
(B) Indian Air Force (IAF)
(C) National Cadet Corps (NCC)
(D) National Security Guards (NSG)
(E) Central Industrial Security Force (CISF)

Options:
(1) ABEDC
(2) BACED
(3) BAEDC
(4) BCAED

Correct Answer: (4) BCAED.

Solution:

The correct order is: - Indian Air Force (IAF) – 1932 - National Cadet Corps (NCC) – 1948 - Border Security Force (BSF) – 1965 - Central Industrial Security Force (CISF) – 1969 - National Security Guards (NSG) – 1984

Quick Tip

Familiarize yourself with key defense organizations to understand their roles and history.

---

68. Which of the following statements are correct?

(A) Jallianwala Bagh Massacre took place in the year 1919.
(B) People were agitated over the arrest of Dr. Kitchlu and Dr. Satyapal and assembled there.
(C) General O'Dyer fired at people who assembled in Jallianwala Bagh.
(D) Gandhiji returned his knighthood in protest.
(E) Sardar Hardayal killed General O'Dyer in London.

Options:
(1) A, B, and C only
(2) B, C, and D only
(3) C, D, and E only
(4) D, E, and A only

Correct Answer: (1) A, B, and C only.

Solution:

The Jallianwala Bagh Massacre took place in 1919, people gathered there in protest against the arrest of Dr. Kitchlu and Dr. Satyapal, and General O'Dyer ordered the firing on the crowd. The other statements regarding Gandhiji's knighthood and Sardar Hardayal's involvement are

incorrect.

---

69. Which of the following statements are correct?
(A) Jainism came into existence around 600 B.C. in India.
(B) There were 24 Tirthankaras in Jainism.
(C) The first Tirthankar was Swami Mahavira.
(D) The last and 24th Tirthankara was Rishabhadeva.
(E) Jainism accepts the idea of the existence of God and believes in the caste system.

Options:
(1) A and B only
(2) B, C, and D only
(3) A and B only
(4) C, D, and E only

Correct Answer: (3) A and B only.

Solution:
Jainism was founded around 600 B.C. in India and has 24 Tirthankaras. However, Mahavira, not Swami Mahavira, is the 24th Tirthankar, and Jainism does not believe in the existence of a creator god or the caste system.

---

70. Match List I with List II:

List I (Viceroys of India)	List II (Known for the Events)
(A)Lord Canning	(1)The Vernacular Press Act
(B)Lord Lytton	(II)The Indian Universities Act
(C)Lord Ripon	(III)Revolt of 1857
(D)Lord Curzon	(IV)The founding father of local self-governance in India

Options:
(1) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
(2) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
(3) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)

(4) (A)-(I), (B)-(IV), (C)-(III), (D)-(II)

Correct Answer: (3) (A)-(III), (B)-(I), (C)-(IV), (D)-(II).

Solution:
- Lord Canning is known for his handling of the Revolt of 1857. - Lord Lytton is known for the Vernacular Press Act. - Lord Ripon is known for the Indian Universities Act. - Lord Curzon is known for being the founding father of local self-governance in India.

Quick Tip

Match historical figures with the significant events they are associated with for better understanding of their contributions.

---

71. Match List I with List II:

List I	List II
(A)Warren Hastings	(1)Father of civil services in India
(B)Lord Cornwallis	(II)Introduction of subsidiary Alliance
(C)Lord Wellesley	(III)Establishment of Ryotwari system
(D)Lord Hastings	(IV)Abolition of Dual Government

Options:
(1) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
(2) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
(3) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
(4) (A)-(I), (B)-(IV), (C)-(II), (D)-(III)

Correct Answer: (1) (A)-(IV), (B)-(I), (C)-(II), (D)-(III).

Solution:
- Warren Hastings is known for the abolition of Dual Government in India. - Lord Cornwallis is recognized as the Father of civil services in India. - Lord Wellesley is known for the introduction of the Subsidiary Alliance. - Lord Hastings is known for the establishment of the Ryotwari system.

Quick Tip

Associate historical figures with the key reforms or policies they are known for.

---

72. Given below are two statements:
Statement I: Vitamin-A, Vitamin-B and Vitamin-C are all fat-soluble vitamins.
Statement II: Vitamin-D, Vitamin-K and Vitamin-E are all water-soluble vitamins.

Options:
(1) Both Statement I and Statement II are true
(2) Both Statement I and Statement II are false
(3) Statement I is true but Statement II is false
(4) Statement I is false but Statement II is true

Correct Answer: (2) Both Statement I and Statement II are false.

Solution:
Vitamins A, D, E, and K are fat-soluble, while vitamins B and C are water-soluble. Hence, both statements are incorrect.

Quick Tip
Review the classification of vitamins based on their solubility in fats or water.

---

73. Given below are two statements:
Statement I: The Abbreviation of ASCII is Army Standard Code for Information Interchange.
Statement II: The abbreviation of COBOL is Computer Business Oriented Language.

Options:
(1) Both Statement I and Statement II are true
(2) Both Statement I and Statement II are false
(3) Statement I is true but Statement II is false
(4) Statement I is false but Statement II is true

Correct Answer: (2) Both Statement I and Statement II are false.

Solution:
The correct abbreviation for ASCII is "American Standard Code for Information Interchange," and COBOL stands for "Common Business-Oriented Language."

Quick Tip
When working with abbreviations, verify the exact terms they represent.

---

74. Given below are two statements:
Statement I: King Ashoka was the son of Chandragupta.
Statement II: The war of Kalinga changed Ashoka, and he became a follower of Jainism.

Options:
(1) Both Statement I and Statement II are true
(2) Both Statement I and Statement II are false

(3) Statement I is true but Statement II is false

(4) Statement I is false but Statement II is true

Correct Answer: (2) Both Statement I and Statement II are false.

Solution:

Ashoka was the grandson of Chandragupta Maurya, not his son. After the war of Kalinga, Ashoka did indeed turn to Buddhism, not Jainism.

Quick Tip

Clarify historical facts regarding important figures and events.

---

75. Given below are two statements:

Statement I: In Indus Valley Civilization, houses were made of bricks.

Statement II: Indus Valley Civilization was not familiar with cotton.

Options:

(1) Both Statement I and Statement II are true

(2) Both Statement I and Statement II are false

(3) Statement I is true but Statement II is false

(4) Statement I is false but Statement II is true

Correct Answer: (3) Statement I is true but Statement II is false.

Solution:

Houses in the Indus Valley Civilization were made of baked bricks, but the civilization was familiar with cotton, which they used for making textiles.

Quick Tip

Focus on archaeological facts to distinguish between true and false statements.

---

76. The youngest Prime Minister in the history of India was

Options:

(1) Indira Gandhi

(2) Jawaharlal Nehru

(3) Rajiv Gandhi

(4) Choudhary Charan Singh

Correct Answer: (3) Rajiv Gandhi.

Solution:

Rajiv Gandhi became the Prime Minister of India at the age of 40, making him the youngest Prime Minister in Indian history.

> **Quick Tip**
>
> Keep track of significant political milestones, such as the ages of leaders when they assume office.

---

77. Which of the following is not a scalar quantity?

Options:

(1) Speed

(2) Work

(3) Force

(4) Volume

Correct Answer: (3) Force.

Solution:

Force is a vector quantity because it has both magnitude and direction. Speed, work, and volume are scalar quantities.

> **Quick Tip**
>
> Distinguish between scalar and vector quantities based on their properties.

---

78. The first Bharat Ratna Awards were not given to

Options:

(1) Pandit Govind Ballabh Pant

(2) Shri Chakravarti Rajagopalachari

(3) Dr. C. V. Raman

(4) Dr. Sarvepalli Radhakrishnan

Correct Answer: (1) Pandit Govind Ballabh Pant.

Solution:

The first Bharat Ratna Awards, instituted in 1954, were given to Dr. Sarvepalli Radhakrishnan, Dr. C. V. Raman, and Shri Chakravarti Rajagopalachari, but not to Pandit Govind Ballabh Pant.

> **Quick Tip**
>
> Know the history of national awards to understand their significance and recipients.

79. Rudyard Kipling is the famous writer of which of the following books?
Options:
(1) The Brief History of Time
(2) The Pie
(3) Jungle Book
(4) The Republic

Correct Answer: (3) Jungle Book.

Solution:
Rudyard Kipling is best known for writing "The Jungle Book," a collection of stories about the adventures of Mowgli, a young boy raised by wolves.

Quick Tip

Famous authors and their works form an important part of literary knowledge.

---

80. The word 'Blue Revolution' is associated with
Options:
(1) Honey Production
(2) Fish Production
(3) Milk Production
(4) Grain Production

Correct Answer: (2) Fish Production.

Solution:
The "Blue Revolution" refers to the significant increase in fish production, especially in India, which was driven by advancements in aquaculture.

Quick Tip

Understand the historical context behind significant revolutions to grasp their societal impact.

Innovation & Entrepreneurship

81. 'Entrepreneur' means:
Options:
(1) to struggle
(2) to undertake

(3) to invent
(4) to motivate

Correct Answer: (2) to undertake.

Solution:
An entrepreneur is someone who undertakes the initiative to organize, manage, and assume the risks of a business or enterprise.

Quick Tip

Entrepreneurs take the initiative and risk to start and run businesses.

---

82. Becoming an entrepreneur is more about:
Options:
(1) Money
(2) Commitment
(3) Support available
(4) Mindset

Correct Answer: (4) Mindset.

Solution:
Becoming an entrepreneur requires the right mindset, as it involves creativity, risk-taking, and persistence, rather than just financial resources or support.

Quick Tip

Having the right mindset is crucial for entrepreneurs to overcome challenges and seize opportunities.

---

83. Diffusion of Innovation theory is associated with:
Options:
(1) Schumpeter
(2) Peter Drucker
(3) Frederick Taylor
(4) E.M. Rogers

Correct Answer: (4) E.M. Rogers.

Solution:
The Diffusion of Innovation theory, which explains how new ideas and technologies spread, was developed by Everett M. Rogers.

84. Given below are two statements:
Statement I: Changing competition in the marketplace is the primary reason for government
involvement in business globally.
Statement II: Increase in the cost of production is the primary reason for government involve-
ment in business globally.

Options:
(1) Both Statement I and Statement II are correct
(2) Both Statement I and Statement II are incorrect
(3) Statement I is correct but Statement II is incorrect
(4) Statement I is incorrect but Statement II is correct

Correct Answer: (3) Statement I is correct but Statement II is incorrect.

Solution:
The changing competitive dynamics in the global market often prompt governments to intervene
in business to regulate competition and maintain market fairness, while the cost of production
is a secondary factor.

85. Which of the following statements are correct?
(A) SMILE loans are aimed to pursue growth opportunities.
(B) SMILE loans are aimed to pay for the earlier loan.
(C) SMILE loans are available to both manufacturing and services organizations.
(D) SMILE loans are aimed at setting up state-of-the-art manufacturing infrastructure for
MSME.
(E) SMILE loans are aimed at meeting the consumption needs of farm-based entrepreneurs.

Options:
(1) A, B, C only
(2) A, C, D only
(3) B, C, E only
(4) C, D, E only

Correct Answer: (2) A, C, D only.

Solution:
SMILE loans are designed to help both manufacturing and service sectors pursue growth opportunities and improve infrastructure. They are not aimed at repaying earlier loans or meeting consumption needs for farm-based entrepreneurs.

> **Quick Tip**
>
> Study the specific objectives of government schemes like SMILE loans to understand their targeted impacts.

---

86. The legal term for brand is:
Options:
(1) Patent
(2) License
(3) Copyright
(4) Trademark

Correct Answer: (4) Trademark.

Solution:
A trademark is a legal term used to refer to the brand name or logo that represents a company or product.

> **Quick Tip**
>
> Trademark protection ensures the brand identity is legally safeguarded.

---

87. Match List I with List II:

List I	List II
(A)Manager	(1)Value addition
(B)Retailer	(II)Gets the work done
(C)Entrepreneur	(III)Works on existing business model
(D)Businessman	(IV)Calculate risk taking

Options:
(1) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
(2) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
(3) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
(4) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)

Correct Answer: (1) (A)-(II), (B)-(I), (C)-(IV), (D)-(III).

Solution:
- A manager is responsible for getting work done. - A retailer adds value by selling goods to customers. - An entrepreneur calculates risk-taking and innovates new business models. - A businessman works on existing business models.

Quick Tip

When matching individuals to their roles, consider the primary responsibilities of each position.

---

88. Design thinking has the following important stages. Arrange them in a sequence:
(A) Define
(B) Empathize
(C) Prototype
(D) Test
(E) Ideate

Options:
(1) BAECD
(2) BEADC
(3) ABCDE
(4) A, B, C, ED

Correct Answer: (1) BAECD.

Solution:
The correct sequence of design thinking stages is: Empathize, Define, Ideate, Prototype, and Test.

Quick Tip

Follow the proper sequence of design thinking stages for effective problem-solving and innovation.

---

89. Following are the reasons for the success of entrepreneurial ventures:
(A) Effective Market Research
(B) Good Financial Control
(C) Good Management
(D) Caste of Entrepreneur
(E) Good Idea

Options:
(1) B, C, D only
(2) A, C, D only
(3) A, B, C, E only
(4) B, D, E only

Correct Answer: (3) A, B, C, E only.

Solution:
The success of entrepreneurial ventures depends on effective market research, good financial control, good management, and having a good idea. The caste of the entrepreneur is not a relevant factor.

Quick Tip

Focus on the key drivers of entrepreneurial success, such as market research and management skills.

---

90. Which of the following factors are not relevant for judging the adequacy of the market?
Options:
(1) Labour Market
(2) Domestic Market Demand
(3) Export Market Demand
(4) Competitors and their market shares

Correct Answer: (1) Labour Market.

Solution:
While the labour market may be an important factor for other considerations, it is not typically relevant for judging the adequacy of the market in the context of business or entrepreneurship.

Quick Tip

Market adequacy is often judged based on demand and competition, rather than labor factors.

---

91. To maintain consistent business throughout the year, an entrepreneur may:
Options:
(1) do multiple businesses at a time
(2) have more than one customer segment
(3) do guerrilla marketing and sales promotion

(4) do business plan

Correct Answer: (2) have more than one customer segment.

Solution:
Having more than one customer segment ensures that the business can target different groups, thus reducing dependency on a single market segment and maintaining steady sales throughout the year.

Quick Tip

Diversify your target audience to minimize the risk of market fluctuations affecting your business.

---

92. Given below are two statements:
Statement I: Dividing the market into small niches is known as targeting.
Statement II: Segmentation and targeting are essential components of understanding the market and tapping it effectively.

Options:
(1) Both Statement I and Statement II are true
(2) Both Statement I and Statement II are false
(3) Statement I is true but Statement II is false
(4) Statement I is false but Statement II is true

Correct Answer: (4) Statement I is false but Statement II is true.

Solution:
Segmentation refers to dividing the market into smaller segments, while targeting refers to selecting the specific segment(s) to focus on. Both are crucial for effectively tapping into a market.

Quick Tip

Understand the difference between segmentation (market division) and targeting (market focus) for strategic marketing.

---

93. Match List I with List II:

List I	List II
(A)Plant and Machinery Records	(1)Design thinking
(B)Profit Statements	(II)Technical feasibility
(C)Creativity and Innovation	(III)Financial feasibility
(D)Empathize	(IV)Business ideation

Options:
(1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
(2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
(3) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
(4) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)

Correct Answer: (2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I).

Solution:
- Plant and Machinery records relate to technical feasibility (B). - Profit statements are crucial for understanding financial feasibility (III). - Creativity and innovation are essential in business ideation (IV). - Empathize is part of the design thinking process (I).

Quick Tip

Match technical, financial, and creative aspects of business planning to their appropriate categories.

---

94. Along with goal setting, major concerns for a growing enterprise are:
(A) Time management.
(B) Finding, retaining, and motivating able human resources.
(C) Finding new financers.
(D) Diversification and export potential.
(E) Performance measurement and incentives.

Options:
(1) ABCDE
(2) A, C, D, E only
(3) B, C, D only
(4) A, B, E only

Correct Answer: (4) A, B, E only.

Solution:
For a growing enterprise, managing time, motivating human resources, and establishing performance metrics are critical. Finding new financers and exploring diversification are important, but less immediate than the others.

---

95. Shruti wants to launch a small floral shop in Nagarbhavi, Bengaluru. As part of her business plan, she prepared an engaging MS PowerPoint presentation to garner interest among potential investors and trigger discussion. This format of business plan is known as:

Options:
(1) Business plan
(2) Pitch deck
(3) Presentation
(4) Business talk

Correct Answer: (2) Pitch deck.

Solution:
A pitch deck is a short presentation used by entrepreneurs to showcase their business ideas to potential investors. It is designed to be concise and engaging.

---

96. Hands-on learning can be best taught through:
(A) Case study analysis
(B) Entrepreneurial Audit
(C) Entrepreneurial profiling
(D) Class discussion
(E) Focused group discussion

Options:
(1) A, B, C only
(2) C, D, E only
(3) A, B, E only
(4) A, B, C, D only

Correct Answer: (1) A, B, C only.

Solution:
Case study analysis, entrepreneurial audits, and profiling are practical methods that encourage

hands-on learning in entrepreneurship by allowing participants to solve real-world problems and analyze business cases.

---

97. Given below are two statements:

Statement I: Business ideation is an important aspect of venture creation.

Statement II: Conversation that happens in an elevator is known as an elevator pitch.

Options:

(1) Both Statement I and Statement II are correct

(2) Both Statement I and Statement II are incorrect

(3) Statement I is correct but Statement II is incorrect

(4) Statement I is incorrect but Statement II is correct

Correct Answer: (3) Statement I is correct but Statement II is incorrect.

Solution:

Business ideation is crucial for venture creation as it lays the foundation for the business model. However, an elevator pitch is a brief, persuasive speech about your business idea, not merely a conversation.

---

98. Bottom line measures of social performance for an entrepreneur include the following:

(A) Unemployment rate

(B) Relative poverty

(C) GDP growth

(D) Average commute time

(E) Literacy rate

Options:

(1) A, B, D, E only

(2) A, C, D, E only

(3) A, B, C, D, E only

(4) B, C, D, E only

Correct Answer: (1) A, B, D, E only.

Solution:
Social performance for an entrepreneur is measured by factors like unemployment, relative poverty, commute times, and literacy rates, as these influence the community's overall well-being.

> **Quick Tip**
>
> Focus on social impacts like unemployment and literacy to assess the broader performance of your entrepreneurial venture.

---

99. Critical evaluation points of Entrepreneurship Development Programmes (EDPs) are:
(A) Organizational Policies
(B) Suitable selection procedure of trainees and Faculty
(C) Quality of Technical and Vocational Education and Training
(D) Organization associated in the EDP

Options:
(1) C, D only
(2) A, B, C, D only
(3) A, B, C only
(4) B, D only

Correct Answer: (3) A, B, C only.

Solution:
Effective EDPs rely on sound organizational policies, the careful selection of trainees and faculty, and high-quality training programs. The organization itself is important but not the central evaluation point.

> **Quick Tip**
>
> Assess EDPs by looking at the training quality and selection processes that drive effective outcomes.

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100. Shaadi.com, an online matchmaking service, is an example of the following startup model:
Options:
(1) Subscription-based business service model
(2) Transaction-based business service model

(3) Multilevel marketing premium model

(4) Relationship-based selling

Correct Answer: (1) Subscription-based business service model.

Solution:

Shaadi.com follows a subscription-based model where users pay to access premium features for matchmaking services.

Quick Tip

Subscription models generate consistent revenue by offering exclusive content or services to paying members.