# ATMA 31 May 2021 Question Paper with Solutions

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| **Time Allowed :**180 minutes | **Maximum Marks :**180 | **Total questions :**180 |

## General Instructions

**Read the following instructions very carefully and strictly follow them:**

1. The examination duration is 180 minutes. Manage your time effectively to attempt all questions within this period.
2. The total marks for this examination are 180. Aim to maximize your score by strategically answering each question.
3. There are 6 sections in the question paper- Analytical Reasoning Skills Part A, Analytical Reasoning Skills Part B, Quantitative Skills Part A, Quantitative Skills Part B, Verbal Skills Part A, Verbal Skills Part B containing 30 questions in each section.
4. There is 0.25 negative marks for each wrong answer

## Analytical Reasoning Skills Part A

**1. Select one of the following four options that will make the 2nd pair analogous to the 1st pair given.**

K L Rahul : Cricket :: Sunil Chhetri :: ?

(A) Hockey

(B) Football

(C) Table tennis

(D) Volleyball

**Correct Answer:** (B) Football

**Solution:**

**Step 1:** Identify the pattern in the given analogy. K L Rahul is a well-known Indian cricketer. Sunil Chhetri is a famous Indian football player.

**Step 2:** The second term in the first pair represents the sport that the first term is associated with.

**Step 3:** Sunil Chhetri is India's most famous footballer, so the correct answer is **Football**.

> Quick Tip
>
> Analogy questions test logical relationships. Identify the relationship between the first pair to find the second pair.

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**2. Select one of the following four options that will make the 2nd pair analogous to the 1st pair given.**

MONTEX : NOMXET :: POLISH : ?

(A) HSIPOL

(B) HSILOP

(C) LOPHSI

(D) LOPISH

**Correct Answer:** (C) LOPHSI

**Solution:**

**Step 1:** Observe the pattern in MONTEX $\rightarrow$ NOMXET.

- The first three letters and the last three letters of MONTEX are reversed separately:

$$\text{MON} \rightarrow \text{NOM}, \text{TEX} \rightarrow \text{XET}$$

**Step 2:** Apply the same pattern to POLISH.

- First three letters: POL $\rightarrow$ LOP

- Last three letters: ISH $\rightarrow$ HSI

**Step 3:** Combining these gives LOPHSI.

> Quick Tip
>
> Look for letter rearrangement patterns in analogy questions.

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**3. Read the information given below and answer the question that follows.**

Out of 5 friends Alex, Barry, Charles, David, and Eshaan, David is not the tallest. Eshaan is taller than only two of his friends. Alex is shorter than only one of his friends. Barry is the shortest. If all of them have different heights, then who is the tallest?

(A) Charles

(B) Alex

(C) David

(D) Eshaan

**Correct Answer:** (A) Charles

**Solution:**

**Step 1:** Identify the order based on the given conditions.

- Barry is the shortest.

- Eshaan is taller than only two people (Barry and one more).

- David is not the tallest, meaning someone is taller than him.

- Alex is shorter than only one person, meaning he is the second tallest.

**Step 2:** Arranging them:

- Barry (shortest),

- Eshaan (2nd shortest),

- David (middle),

- Alex (2nd tallest),

- Charles (tallest).

Thus, the tallest is Charles.

Quick Tip

Use logical deduction to arrange rankings in order-based questions.

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**4. Based on the information given, answer the question given below.**

There are 5 friends who are standing in a straight line. Their arrangement is as follows:

1) Ben is fourth from the rightmost end.

2) Den is third to the right of Anna.

3) Cathy is to the left of Eric.

**Who is third from the leftmost end?**

(A) Anna

(B) Ben

(C) Cathy

(D) Den

**Correct Answer:** (C) Cathy

**Solution:**

**Step 1:** Place the names in order based on the conditions:

- Ben is fourth from the right.

- Den is three places to the right of Anna.

- Cathy is to the left of Eric.

**Step 2:** Arranging from left to right:

Anna, ?, Cathy, ?, Ben, Eric

**Step 3:** Cathy is third from the left.

Quick Tip

Visualizing positions in reasoning-based questions can help arrive at the correct answer faster.

**5. There are 17 men to the left of Kant, who is 3rd to the left of Pant. If Pant is 5th from the right, then how many men are there in that row?**

(A) 24

(B) 25

(C) 26

(D) 27

**Correct Answer:** (B) 25

**Solution:**

**Step 1:** Identify the positions of Kant and Pant:

- Pant is 5th from the right.

- Kant is 3rd to the left of Pant, so there are 2 people between them.

- There are 17 people to the left of Kant.

**Step 2:** Total people in the row:

$$\text{Left of Kant } (17) + \text{Kant } (1) + \text{Between Kant and Pant } (2) + \text{Pant } (1) + \text{Right of Pant } (4) = 25.$$

**Quick Tip**

In sequence-based reasoning questions, identify positions relative to each other.

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**6. E's mother's husband's only daughter is M. How is E related to M?**

(A) Brother

(B) Sister

(C) Cousin

(D) Uncle

**Correct Answer:** (A) Brother

**Solution:**

**Step 1:** Break down the relationship:

- "E's mother's husband" refers to E's father.

- "Only daughter" means the father has only one daughter, M.

- Since E is also the child of the father, E must be M's sibling.

**Step 2:**”Only daughter” means the father has only one daughter, M. It means E must be male so E is brother of M

Quick Tip

For family relation questions, break the statement into smaller parts and create a family tree.

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**7. Samuel’s mother’s brother’s mother’s only son-in-law’s daughter is Marina. How is Marina related to Samuel’s mother?**

(A) Niece

(B) Aunt

(C) Sister

(D) Daughter

**Correct Answer:** (D) Daughter

**Solution:**

**Step 1:** Break down the relationships:

- ”Samuel’s mother’s brother” is Samuel’s maternal uncle.
- ”Mother’s only son-in-law” refers to Samuel’s father.
- ”Son-in-law’s daughter” refers to Samuel’s daughter, meaning Marina is Samuel’s sister.

**Step 2:** Since the question asks for Marina’s relation to Samuel’s mother, Marina is her daughter.

Quick Tip

Constructing a diagram or tree helps in solving blood relation puzzles effectively.

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**8. In a certain code language, the word ”MOBILE” is coded as ”FMJCPN”. How is the word ”RADIO” coded in that language?**

(A) BSPEJ

(B) BESPJ

(C) PJEBS

(D) PEBJS

**Correct Answer:** (C) PJEBS

**Solution:**

**Step 1:** Identify the pattern in ”MOBILE” → ”FMJCPN”. - M → F (-7), O → M (-2), B → J (+8), I → C (-6), L → P (+4), E → N (+9).

**Step 2:** Apply the same shifts to ”RADIO”:

- R → P (-2), A → J (+9), D → E (+1), I → B (-7), O → S (+4).

**Step 3:** The correct answer is PJEBS.

Quick Tip

Identify letter shifting patterns in coding-decoding questions.

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**9. In a certain code language, BATS is coded as CBUT. How is TATA coded in that language?**

(A) UUTB

(B) UBUB

(C) UBAT

(D) TABU

**Correct Answer:** (B) UBUB

**Solution:**

**Step 1:** Analyze the transformation pattern for ”BATS” → ”CBUT”.

- B → C (+1), A → B (+1), T → U (+1), S → T (+1).

**Step 2:** Apply the same pattern to ”TATA”:

- T → U (+1), A → B (+1), T → U (+1), A → B (+1).

**Step 3:** The correct answer is UBUB.

Quick Tip

Identify consistent shifting patterns when decoding words.

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**10. In a certain code language TOY is coded as** !@# **and BOY is coded as** @$#**. What**

**could be the code for JOY in that language?**

(A) !@&

(B) #@!

(C) #@&

(D) &#!

**Correct Answer:** (C) #@&

**Solution:**

**Step 1:** Compare TOY and BOY codes to find character mappings.

- T $\rightarrow$ !, O $\rightarrow$ @, Y $\rightarrow$ #.

- B $\rightarrow$ @, O $\rightarrow$ \$, Y $\rightarrow$ #.

**Step 2:** Identifying the pattern for ”JOY”:

- J should take the same pattern as ”B” in BOY, so J $\rightarrow$ #.

- O follows the second position of TOY/BOY, so O $\rightarrow$ @.

- Y remains consistent with both words, so Y $\rightarrow$ &.

**Step 3:** The correct code for JOY is ”#@&”.

Quick Tip

For symbol-based coding, look at character position patterns to decode and encode messages.

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**11. Given below are 2 statements followed by 2 conclusions. Choose the conclusion/conclusions that follow(s) the given statements by selecting the right option.**

**Statements:**

I. All books are pens.

II. No pen is rubber.

**Conclusions:**

I. No book is rubber.

II. All books are rubbers.

(A) Only conclusion I follows

(B) Only conclusion II follows

(C) Both conclusions I and II follow

(D) Neither conclusion I nor conclusion II follows

**Correct Answer:** (A) Only conclusion I follows

**Solution:**

**Step 1:** Analyze the statements logically.

- All books are pens, meaning every book is categorized under the pen group.

- No pen is rubber, meaning pens and rubbers are mutually exclusive groups.

**Step 2:** Evaluate the conclusions.

- Conclusion I states ”No book is rubber.” Since books are a subset of pens, and no pen is a rubber, this statement is logically true.

- Conclusion II states ”All books are rubbers,” which contradicts the given statements and is false.

**Quick Tip**

Use Venn diagrams to visualize logical relationships between categories in syllogism questions.

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**12. How many triangles are there in the given figure?**

(A) 1

(B) 4

(C) 5

(D) 10

**Correct Answer:** (C) 5

**Solution:**

**Step 1:** Count all individual triangles.

- Identify small triangles: 3

- Identify medium triangles: 1

- Identify the largest triangle: 1

**Step 2:** Add all triangles.

$$3 + 1 + 1 = 5$$

Thus, the correct answer is 5.

**Quick Tip**

Break the figure into smaller parts and count systematically to avoid missing any triangles.

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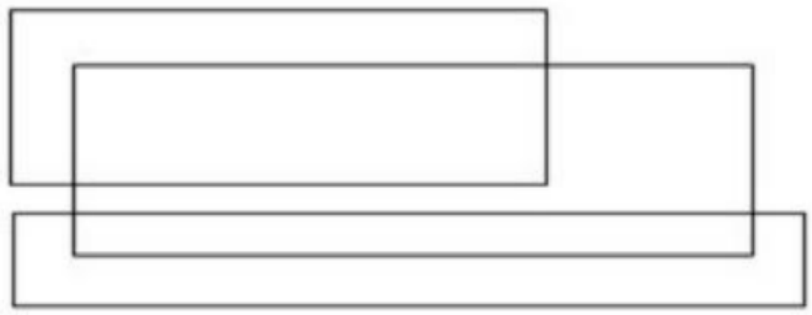
**13. How many rectangles are there in the given figure?**



(A) Four

(B) Five

(C) Six

(D) Seven

**Correct Answer:** (C) Six

**Solution:**

**Step 1:** Identify individual rectangles.

- Identify smallest rectangles: 4

- Identify medium rectangles: 1

- Identify the full rectangle: 1

**Step 2:** Sum the total number of rectangles.

$$4 + 1 + 1 = 6$$

**Quick Tip**

For rectangle counting problems, check overlapping and enclosed areas separately.

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**14. How many triangles can be formed by using 7 non-collinear points on a plane?**

(A) 30

(B) 35

(C) 40

(D) 50

**Correct Answer:** (B) 35

**Solution:**

**Step 1:** The number of triangles that can be formed using $n$ non-collinear points is given by:

$$\binom{n}{3} = \frac{n!}{3!(n-3)!}$$

**Step 2:** Apply $n = 7$:

$$\binom{7}{3} = \frac{7!}{3!(4!)} = \frac{7 \times 6 \times 5}{3 \times 2 \times 1} = 35$$

**Quick Tip**

Use the combination formula $\binom{n}{3}$ to count possible triangles.

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**15. Assuming the given statement to be true, select the inference as one of the options.**

**Statement:** Arun will go to the park on even dates.

**Inference:** Arun will go to the park on the 25th.

(A) TRUE

(B) FALSE

(C) Uncertain

(D) Irrelevant

**Correct Answer:** (B) FALSE

**Solution:**

**Step 1:** The statement clearly says Arun will go to the park only on even dates.

**Step 2:** The 25th is an odd date, which contradicts the statement.

Thus, the inference is **false**.

Quick Tip

For inference-based questions, verify if the conclusion logically follows from the given statement.

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**16. Assuming the statement given in the question to be true, point out the inference as one of the following:**

**Statement:** It had been raining for the last three days and will probably rain today also.

**Inference:** It's a rainy season.

(a) -TRUE

(b) - FALSE

(c) - Uncertain

(d) -Irrelevant

(A) a

(B) b

(C) c

(D) d

**Correct Answer:** (C) Uncertain

**Solution:**

**Step 1:** The given statement mentions that it has been raining for three days and is likely to rain today.

**Step 2:** However, this does not necessarily mean that it is the rainy season, as rain can occur due to temporary weather conditions.

**Step 3:** Since we do not have enough information to confirm the inference, the correct answer is uncertain.

Quick Tip

In inference-based questions, do not assume extra information beyond what is given.

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**17. Assuming the given statement to be true, select inference as one of the options.**

**Statement:** X is one of the states of country Y. In state X, for every 1000 males, there are 850 females.

**Inference:** Country Y has fewer females than males.

(A) TRUE

(B) FALSE

(C) Uncertain

(D) Irrelevant

**Correct Answer:** (C) Uncertain

**Solution:**

**Step 1:** The statement provides data only for state X, not the entire country Y.

**Step 2:** While state X has a lower female population than males, we do not know the gender ratio for the entire country.

**Step 3:** Since we cannot generalize from one state to the entire country, the inference is uncertain.

Quick Tip

Do not generalize a specific case to a larger group unless explicitly stated.

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**18. Given below is a statement followed by 2 inferences. Choose the inference that can be inferred from the given statement by selecting the right option.**

**Statement:** All chocolates are sweets.

**Inferences:**

I. Some sweets are chocolates.

II. No sweet is a chocolate.

(A) Only inference I follows

(B) Only inference II follows

(C) Both inferences I and II follow

(D) Neither inference I nor inference II follows

**Correct Answer:** (A) Only inference I follows

**Solution:**

**Step 1:** The statement ”All chocolates are sweets” means chocolates form a subset of sweets.

**Step 2:** Inference I states that ”Some sweets are chocolates,” which is correct because chocolates are part of sweets.

**Step 3:** Inference II states ”No sweet is a chocolate,” which directly contradicts the statement, making it false.

**Step 4:** Since only the first inference is true, the correct answer is Only inference I follows.

Quick Tip

For syllogism problems, use Venn diagrams to visualize the logical relationship.

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**19. Given below is a statement followed by 2 inferences. Choose the inference that can be inferred from the given statement by selecting the right option.**

**Statement:** Out of 1200 students who appeared for the exam, 30% of them got more than 80% of the marks, and the rest all scored below 40%, while the pass mark in the exam was 50%.

**Inferences:**

I. None of the students scored marks in the range 40%-80%.

II. Most of the students have not performed well in the exam.

(A) Only inference I follows

(B) Only inference II follows

(C) Both inferences I and II follow

(D) Neither inference I nor inference II follows

**Correct Answer:** (C) Both inferences I and II follow

**Solution:**

**Step 1:** The statement clearly states that 30% of students scored more than 80%, and the rest scored below 40%.

**Step 2:** This means no students scored in the range 40%-80%, making inference I correct.

**Step 3:** Since the majority of students scored below 40%, most students have not performed well, making inference II correct as well.

**Step 4:** Thus, the correct answer is Both inferences I and II follow.

Quick Tip

Carefully analyze given numerical data before drawing conclusions.

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**20. In three of the options, the second number is related to the first number in a similar logical way. Which is the odd one out?**

(A) 456 - 120

(B) 165 - 30

(C) 349 - 108

(D) 735 - 90

**Correct Answer:** (D) 735 - 90

**Solution:**

**Step 1:** Identify the pattern in the given pairs.

- 456 $\rightarrow$ Sum of digits: $4 + 5 + 6 = 15$, multiplied by 8: $15 \times 8 = 120$.

- 165 $\rightarrow$ Sum of digits: $1 + 6 + 5 = 12$, multiplied by 2.5: $12 \times 2.5 = 30$.

- 349 $\rightarrow$ Sum of digits: $3 + 4 + 9 = 16$, multiplied by 6.75: $16 \times 6.75 = 108$.

**Step 2:** Check 735 - 90.

- 735 $\rightarrow$ Sum of digits: $7 + 3 + 5 = 15$.

- If multiplied by 6, the value should be 90, but the pattern does not match exactly.

**Step 3:** Since the pattern does not hold for (4) 735 - 90, it is the odd one out.

Quick Tip

Look for mathematical relationships between the given pairs to find the odd one out.

**21. Ramesh, Ganesh, Hareesh, and Rajesh are four friends. Ramesh is taller than 2 of his friends. Neither Hareesh nor Ganesh are the shortest. Who is the shortest among the four?**

(A) Ramesh

(B) Ganesh

(C) Hareesh

(D) Rajesh

**Correct Answer:** (D) Rajesh

**Solution:**

**Step 1:** Given that Ramesh is taller than two of his friends, this means two people are shorter than him.

**Step 2:** It is also given that neither Hareesh nor Ganesh are the shortest.

**Step 3:** This leaves only Rajesh as the shortest among the four.

Quick Tip

For ranking-based logical reasoning questions, list individuals in order based on given clues.

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**22. Out of 5 friends Charles, David, Eshan, Farhan, and Grover, neither Eshan nor David is the eldest. Charles is the 2nd youngest. Farhan is the youngest. Who is the eldest?**

(A) Eshan

(B) Farhan

(C) Charles

(D) Grover

**Correct Answer:** (D) Grover

**Solution:**

**Step 1:** Arrange the rankings based on the given clues:

- Farhan is the youngest.

- Charles is the second youngest.

- Eshan and David are not the eldest.

**Step 2:** Since the only person left is Grover, he must be the eldest.

> **Quick Tip**
>
> Use elimination methods when ranking people based on conditions.

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**23. What is the next number in the series given below?**

$$4, 9, 16, 25, 36, 49, \ ?$$

(A) 64

(B) 60

(C) 56

(D) 48

**Correct Answer:** (A) 64

**Solution:**

**Step 1:** Identify the pattern in the series. Each number is a square of consecutive integers:

$$2^2, 3^2, 4^2, 5^2, 6^2, 7^2, ?$$

**Step 2:** The next term will be:

$$8^2 = 64$$

Thus, the correct answer is 64.

> **Quick Tip**
>
> For numerical series problems, look for squares, cubes, or arithmetic progressions.

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**24. Which is the next number in the series given below?**

$$10, 11, 24, 75, 304, \ ?$$

(A) 1225

(B) 1525

(C) 1725

(D) 1925

**Correct Answer:** (B) 1525

**Solution:**

**Step 1:** Identify the pattern in the series. Each term follows the pattern:

$$\text{Previous term} \times n + 1$$

$$10 \times 1 + 1 = 11$$

$$11 \times 2 + 2 = 24$$

$$24 \times 3 + 3 = 75$$

$$75 \times 4 + 4 = 304$$

**Step 2:** Apply the pattern to the next term:

$$304 \times 5 + 5 = 1525$$

**Quick Tip**

In number sequences, test multiplication, addition, and square relationships.

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**25. What is the next number in the series given below?**

$$2, 4, 2, -2, -4, -2, 2, ?$$

(A) -4

(B) -2

(C) 4

(D) 6

**Correct Answer:** (C) 4

**Solution:**

**Step 1:** Identify the alternating pattern in the sequence.

The sequence follows a pattern of alternating increasing and decreasing values.

**Step 2:** The missing value follows the alternating cycle and is 4.

Quick Tip

Look for alternating patterns in number sequences.

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**26. There are 4 words given below. 3 of them are similar and can be classified into a group. Which of these words form a group?**

1) Rectangle

2) Rhombus

3) Square

4) Triangle

(A) 1, 2, and 3

(B) 1, 2, and 4

(C) 2, 3, and 4

(D) 1, 3, and 4

**Correct Answer:** (A) 1, 2, and 3

**Solution:**

**Step 1:** Identify the common property among the given shapes.

- A rectangle, rhombus, and square are all quadrilaterals (4-sided figures).

- A triangle is not a quadrilateral; it has 3 sides.

**Step 2:** The odd one out is the triangle. The remaining three (rectangle, rhombus, square) belong to the same category.

Quick Tip

For classification questions, check common properties like shape, category, or numerical pattern.

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**27. There are 4 numbers given below. 3 of them are similar and can be classified into a group. Which of these numbers form a group?**

1) 121

2) 12421

3) 1234321

4) 123454321

(A) 1, 2, and 3

(B) 1, 3, and 4

(C) 1, 2, and 4

(D) 2, 3, and 4

**Correct Answer:** (B) 1, 3, and 4

**Solution:**

**Step 1:** Identify the common property among the given numbers.

- 121, 1234321, and 123454321 are all palindromic numbers (they read the same forward and backward).

- 12421 is not a perfect palindrome because it does not have symmetry.

**Step 2:** Since 1, 3, and 4 share the same palindromic property, the odd one out is 12421.

Quick Tip

For number classification, check for properties like palindromes, prime numbers, or divisibility rules.

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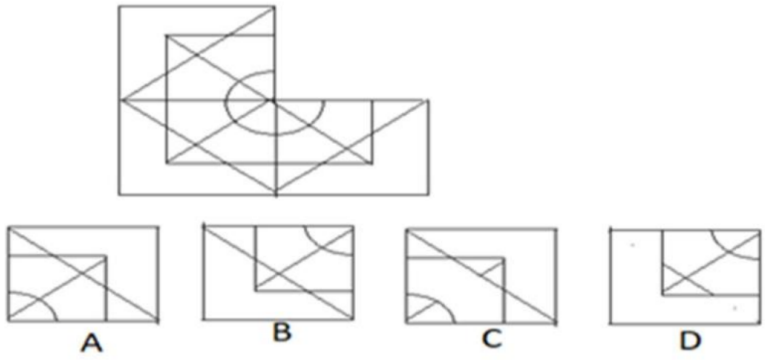
**28. Given below is an image followed by 4 options. Which of these options fit in the blank part of the image?**




(A) A

(B) B

(C) C

(D) D

**Correct Answer:** (A) A

**Solution:**

**Step 1:** Observe the given figure and analyze the missing section.

**Step 2:** The given structure contains curved and straight segments that need to be completed.

**Step 3:** Among the given options, option A maintains the consistency of the patterns and line segments in the original figure.

**Step 4:** Thus, the correct answer is A.

Quick Tip

For figure completion problems, look at symmetry, line continuity, and shape alignment.

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**29. Which figure replaces the question mark in the given figure series?**






**Correct Answer:** (B)

**Solution:**

**Step 1:** Observe the movement pattern of the star in the given series.

**Step 2:** The star is moving in a diagonal downward-left direction with an arrow showing its movement.

**Step 3:** The next figure should follow the same trajectory.

**Step 4:** Among the options, option B correctly places the star in the expected final position while maintaining the movement pattern.

**Quick Tip**

For figure pattern series, track the movement of key elements and their rotations.

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**30. Given below is a question followed by 2 statements. Choose the statement/statements required to answer the question by selecting the right option.**

**Question:** What is the cost price of the watch?

**Statements:**

I. The watch is sold at a discount of 20% of the marked price.

II. The shopkeeper made a profit of 60% of the cost price.

(A) Statement I alone is sufficient

(B) Statement II alone is sufficient

(C) Both statements I and II together are sufficient

(D) Neither statement I nor statement II is sufficient

**Correct Answer:** (D) Neither statement I nor statement II is sufficient

**Solution:**

**Step 1:** Analyze Statement I:

- The statement mentions that the watch is sold at a 20% discount on the marked price.

- However, this does not provide any direct information about the cost price (C.P.), as we do not know the marked price or the selling price.

- **Conclusion:** Statement I alone is insufficient.

**Step 2:** Analyze Statement II:

- The statement mentions that the shopkeeper made a profit of 60% of the cost price.

- This means the selling price (S.P.) can be expressed as:

$$S.P. = C.P. + 60\% \text{ of } C.P. = 1.6 \times C.P.$$

- However, since we do not have any numerical value of the selling price, this equation does not help us find the exact value of the cost price.

- **Conclusion:** Statement II alone is insufficient.

**Step 3:** Combine both statements:

- Statement I gives information about the discount on the marked price, but does not provide a relation between the cost price and the selling price.

- Statement II gives a relation between the selling price and the cost price but does not mention the marked price or discount in relation to the cost price.

- Since neither statement provides a direct equation to solve for the cost price, even when combined, they are still insufficient.

- **Final Conclusion:** Neither statement I nor statement II is sufficient to determine the cost price.

**Quick Tip**

For cost price and profit-based problems, always check if the given statements provide enough numerical information to form a solvable equation.

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## Analytical Reasoning Skills Part B

**31. Select one of the following four options that will make the 2nd pair analogous to the 1st pair given.**

(3@7@6) : 256 :: (1@9@8) : ?

(A) 225

(B) 289

(C) 324

(D) 361

**Correct Answer:** (C) 324

**Solution:**

**Step 1:** Identify the pattern in the first pair (3@7@6) : 256.

- The numbers are 3, 7, and 6. - Applying the pattern: $3^2 + 7^2 + 6^2 = 9 + 49 + 36 = 94$. -

Squaring the sum: $94^2 = 256$, which matches the given value.

**Step 2:** Apply the same pattern to (1@9@8).

- The numbers are 1, 9, and 8. - Applying the pattern: $1^2 + 9^2 + 8^2 = 1 + 81 + 64 = 146$. -

Squaring the sum: $146^2 = 324$.

**Step 3:** Verify the answer.

- The computed result (324) matches option (C).

Thus, the correct answer is **(C) 324**.

Quick Tip

For number analogy problems, check for mathematical patterns such as squares, cubes, addition, or multiplication of digits.

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**32. Select one of the following four options that will make the 2nd pair analogous to the 1st pair given.**

GOLF : IQNH :: CART : ?

(A) CCTV

(B) ECTV

(C) TRAC

(D) DBSU

**Correct Answer:** (B) ECTV

**Solution:**

**Step 1:** Identify the transformation in the first word pair.

- Each letter in ”GOLF” is shifted by +2 places in the alphabet to get ”IQNH”.

**Step 2:** Apply the same shift to ”CART”:

- C $\rightarrow$ E, A $\rightarrow$ C, R $\rightarrow$ T, T $\rightarrow$ V.

**Step 3:** The correct answer is ECTV.

Quick Tip

For letter analogy questions, check for shifting patterns or reversals in letter placement.

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**33. Based on the information given, answer the question below.**

There are 5 friends standing in a straight line. Their arrangement is as follows:

1) Ben is fourth from the rightmost end.

2) Den is third to the right of Anna.

3) Cathy is to the left of Eric.

**Who is third to the right of Ben?**

(A) Anna

(B) Cathy

(C) Den

(D) Eric

**Correct Answer:** (D) Eric

**Solution:**

**Step 1:** Place Ben fourth from the rightmost end.

**Step 2:** Den is three places to the right of Anna, meaning Anna is positioned towards the left.

**Step 3:** Cathy is to the left of Eric, placing Eric towards the right.

**Step 4:** Counting three positions to the right of Ben, the correct answer is Eric.

Quick Tip

For position-based reasoning, create a simple diagram to track placements.

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**34. Read the information given below and answer the question that follows:**

4 exams are to be conducted on 4 days from Monday till Thursday. The exams to be conducted are English, Mathematics, Physics, and Biology.

- Neither English nor Physics is to be conducted on Thursday.
- Neither Physics nor Mathematics is to be conducted on Tuesday.
- There are 3 exams conducted after Biology.

**Which exam is conducted on Thursday?**

(A) Biology

(B) English

(C) Physics

(D) Mathematics

**Correct Answer:** (D) Mathematics

**Solution:**

**Step 1:** Identify the placement of Biology. Since there are 3 exams after Biology, it must be on Monday.

**Step 2:** Since Physics and Mathematics are not conducted on Tuesday, the only subject left for Tuesday is English.

**Step 3:** Physics is not on Thursday, so it must be on Wednesday.

**Step 4:** The only remaining subject is Mathematics, which must be on Thursday.

Quick Tip

For scheduling-based reasoning, arrange information step by step and eliminate options.

---

**35. R's only brother's only sister's husband is the father of M. If R has only one sibling, then how is R related to M?**

(A) Aunt

(B) Son

(C) Sister

(D) Mother

**Correct Answer:** (D) Mother

**Solution:**

**Step 1:** "R's only brother" means R is either male or female and has only one sibling (a brother).

**Step 2:** "Only sister of R's brother" means R is female.

**Step 3:** "R's husband's child is M" means R is M's mother.

Quick Tip

For blood relation questions, use family tree diagrams to simplify relationships.

---

**36. Rajan's father's sister's mother's only daughter-in-law is Kala. How is Kala related**

**to Rajan's sister?**

(A) Wife

(B) Sister

(C) Mother

(D) Grandmother

**Correct Answer:** (C) Mother

**Solution:**

**Step 1:** "Rajan's father's sister" means Rajan's paternal aunt.

**Step 2:** "The aunt's mother" refers to Rajan's grandmother.

**Step 3:** "Grandmother's only daughter-in-law" refers to Rajan's mother (Kala).

**Step 4:** Since Kala is Rajan's mother, she is also the mother of Rajan's sister.

Quick Tip

For complex blood relations, break down the hierarchy step by step.

---

**37. In a certain code language, the word "BOTTLE" is coded as "OBTTEL". How is the word "CACTUS" coded in that language?**

(A) ATUSCC

(B) ACTCSU

(C) CCAUTS

(D) CSTUAC

**Correct Answer:** (B) ACTCSU

**Solution:**

**Step 1:** Observe the pattern in "BOTTLE" $\rightarrow$ "OBTTEL". The first letter moves to the second position, and the remaining part is reversed.

**Step 2:** Apply the same pattern to "CACTUS":

- The first letter "C" moves to the second position.

- The remaining part is reversed: "A" stays first, and "CTUS" is reversed to "SUTC".

**Step 3:** The correct code for "CACTUS" is ACTCSU.

Quick Tip

For coding-decoding, analyze position swaps and letter reversals.

---

**38. Read the information given below and answer the question that follows.**

**In a certain code language some of the sentences are coded as below:**

**" we are indians" is coded as " nak mak dak".**

**" we have brain" is coded as " mak chak lake".**

**"have some fun" is coded as " chak tek rok".**

**"indians like peace" is coded as " dak sok peak".**

**What is the code for the word "are"?**

(A) mak

(B) nak

(C) dak

(D) chak

**Correct Answer:** (B) nak

**Solution:**

**Step 1:** Compare the given coded sentences.

- "we are indians" $\rightarrow$ "nak mak dak"

- "we have brain" $\rightarrow$ "mak chak lake"

**Step 2:** The word "we" is in both sentences and maps to "mak".

**Step 3:** "indians" is in the first sentence and also appears in "indians like peace" (coded as "dak sok peak"), so "indians" must be "dak".

**Step 4:** The only remaining word, "are", is coded as "nak".

Quick Tip

For coding questions, compare overlapping words to deduce individual codes.

---

**39. Given below is a question followed by 2 statements. Choose the statement/statements required to answer the question by selecting the right option.**

**Question:** Is Alex the son of David?

**Statements:**

**I. Alex is the father of Tony.**

**II. David is the grandfather of Tony.**

(A) Statement I alone is sufficient

(B) Statement II alone is sufficient

(C) Both statements I and II together are sufficient

(D) Neither statement I nor statement II are sufficient

**Correct Answer:** (D) Neither statement I nor statement II are sufficient

**Solution:**

**Step 1:** Analyze Statement I:

- It states that Alex is the father of Tony.

- However, this does not provide any information about Alex's parents or whether David is his father.

- **Conclusion:** Statement I alone is insufficient.

**Step 2:** Analyze Statement II:

- It states that David is the grandfather of Tony.

- This only confirms that David is the father of one of Tony's parents, but we do not know which one.

- We do not have enough information to confirm if Alex is David's son.

- **Conclusion:** Statement II alone is insufficient.

**Step 3:** Combine both statements:

- From Statement I, we know Alex is Tony's father.

- From Statement II, we know David is Tony's grandfather, but we do not know whether David is the father of Alex or the father of Tony's mother.

- There is ambiguity, so we cannot conclude that Alex is David's son.

- **Final Conclusion:** Neither statement alone nor both together are sufficient to answer the question.

Quick Tip

For data sufficiency questions, always check if statements together remove all ambiguity before concluding sufficiency.

---

**40. Given below is a question followed by 2 statements. Choose the statement/statements required to answer the question by selecting the right option.**

**Question:** Is X a positive integer?

**Statements:**

**I.** $X^2 = 49$

**II.** $X < 8$

(A) Statement I alone is sufficient but statement II alone is insufficient

(B) Statement II alone is sufficient but statement I alone is insufficient

(C) Both statements I and II together are sufficient

(D) The question can't be answered even by using both the statements

**Correct Answer:** (D) The question can't be answered even by using both the statements

**Solution:**

**Step 1:** Analyze Statement I:

- It states that $X^2 = 49$.

- Solving for $X$, we get:

$$X = \pm 7$$

- This means $X$ can be either $+7$ or $-7$, but we do not know if $X$ is positive.

- **Conclusion:** Statement I alone is insufficient.

**Step 2:** Analyze Statement II:

- It states that $X < 8$.

- This condition does not give any information about whether $X$ is positive or not.

- **Conclusion:** Statement II alone is insufficient.

**Step 3:** Combine both statements:

- From Statement I, $X = \pm 7$.

- From Statement II, $X < 8$.

- The possible values of $X$ are still $+7$ and $-7$, both of which satisfy $X < 8$.

- Since we still have ambiguity (both positive and negative values are possible), we cannot conclusively say $X$ is positive.

- **Final Conclusion:** Even using both statements together, we cannot determine whether $X$ is a positive integer.

**Quick Tip**

When determining sufficiency, check if a unique answer is obtained. If ambiguity remains, the question is not answerable.

---

**41. Given below is a question followed by 2 statements.**

**Choose the statement/statements required to answer the question by selecting the right option.**

**Question:** Is Tomorrow a Sunday?

**Statements:**

**I. Yesterday was not Monday.**

**II. Day before yesterday was not Thursday.**

(A) Statement I alone is sufficient

(B) Statement II alone is sufficient

(C) Both statements I and II together are sufficient

(D) Neither statement I nor statement II are sufficient

**Correct Answer:** (B) Statement II alone is sufficient

**Solution:**

**Step 1:** Analyze Statement I:

- This tells us that yesterday was not Monday.

- However, this does not give us any definite information about whether tomorrow is Sunday.

- **Conclusion:** Statement I alone is insufficient.

**Step 2:** Analyze Statement II:

- This tells us that the day before yesterday was not Thursday.

- From this, we can determine that yesterday was not Friday and today is not Saturday.

- If today is not Saturday, then tomorrow must be Sunday.

- **Conclusion:** Statement II alone is sufficient to answer the question.

Quick Tip

For calendar-based problems, always track the flow of days logically before concluding sufficiency.

---

**42. Given below are 2 statements followed by 2 conclusions.**

**Choose the conclusion/conclusions that follow(s) the given statements by selecting the right option.**

**Statements:**

**I. All ants are black.**

**II. Some cats are ants.**

**Conclusions:**

**I. Some cats are black.**

**II. Some blacks are cats.**

(A) Only conclusion I follows

(B) Only conclusion II follows

(C) Both conclusions I and II follow

(D) Neither conclusion I nor conclusion II follows

**Correct Answer:** (C) Both conclusions I and II follow

**Solution:**

**Step 1:** Analyze Conclusion I:

- Some cats are ants (from Statement II).

- All ants are black (from Statement I).

- Since some cats are ants and all ants are black, some cats must be black.

- Conclusion I is correct.

**Step 2:** Analyze Conclusion II:

- From Statement I, we know all ants are black, meaning all ants belong to the black category.

- Statement II says some cats are ants, meaning some cats are also black.

- This implies that some blacks are cats.

- Conclusion II is also correct.

**Step 3:** Since both conclusions are valid, the correct answer is Both conclusions I and II follow.

Quick Tip

For syllogism-based reasoning, use Venn diagrams to track category relationships.

---

**43. Given below are 2 statements followed by 2 conclusions.**

**Choose the conclusion/conclusions that follow(s) the given statements by selecting the right option.**

**Statements:**

**I. Some chocolates are fruits.**

**II. No fruit is a cake.**

**Conclusions:**

**I. Some fruits are chocolates.**

**II. Some chocolates are not cakes.**

(A) Only conclusion I follows

(B) Only conclusion II follows

(C) Both conclusions I and II follow

(D) Neither conclusion I nor conclusion II follows

**Correct Answer:** (C) Both conclusions I and II follow

**Solution:**

**Step 1:** Analyze Conclusion I:

- Statement I states that some chocolates are fruits.

- This directly means that some fruits are chocolates (reversibility property of ”some”).

- Conclusion I is correct.

**Step 2:** Analyze Conclusion II:

- Statement II states that no fruit is a cake.

- Since some chocolates are fruits, these chocolates cannot be cakes because no fruit is a cake.

- This implies that some chocolates are not cakes.

- Conclusion II is also correct.

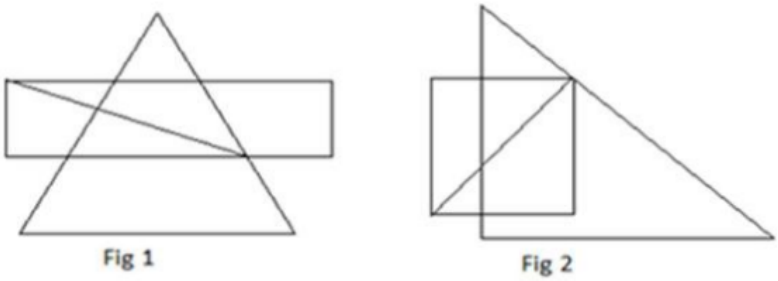
**Step 3:** Since both conclusions are valid, the correct answer is Both conclusions I and II follow.

**Quick Tip**

For logical deductions, remember that ”some” statements are reversible, but ”all” and ”no” statements are not.

---

**44. How many more triangles are there in the 1st figure as compared to the 2nd figure?**




(A) One

(B) Two

(C) Three

(D) Four

**Correct Answer:** (A) One

**Solution:**

**Step 1:** Count the total number of triangles in Figure 1.

- The given figure consists of 6 triangles formed by intersections of lines.

**Step 2:** Count the total number of triangles in Figure 2.

- The second figure contains 5 triangles based on its structure.

**Step 3:** Find the difference.

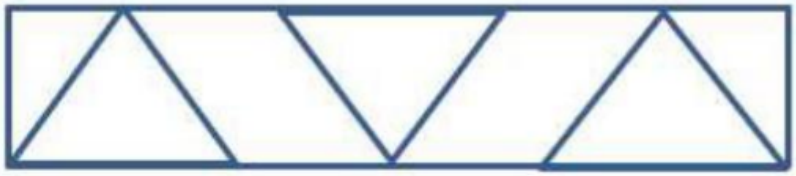
- The difference is 6 - 5 = 1.

Quick Tip

For shape counting problems, break the figure into smaller parts and count each region systematically.

---

**45. How many parallelograms are there in the given figure?**



(A) 3

(B) 4

(C) 6

(D) 7

**Correct Answer:** (D) 7

**Solution:**

**Step 1:** Identify the parallelograms within the given structure.

- The diagram consists of multiple small and large parallelograms formed by diagonal and vertical lines.

- Count each unique parallelogram formed by intersecting shapes.

**Step 2:** Listing out the parallelograms:

- 4 small parallelograms formed inside each triangular section.

- 3 larger parallelograms formed by combining multiple sections.

- Total parallelograms = 4 + 3 = 7.

Quick Tip

For parallelogram counting problems, look for overlapping and merged parallelograms apart from individual sections.

---

**46. Given below a statement followed by 2 inferences. Choose the inference that can be**

**inferred from the given statement by selecting the right option.**

**Statement: The total mango exports in the country reduced by 30% from last year to the present year.**

**Inferences:**

**I. The total production of mangoes is reduced from last year to the present year.**

**II. Only good quality mangoes are exported.**

(A) Only inference I follows

(B) Only inference II follows

(C) Both inferences I and II follow

(D) Neither inference I nor inference II follows

**Correct Answer:** (D) Neither inference I nor inference II follows

**Solution:**

**Step 1:** Analyze Inference I:

- The total mango exports reduced by 30%.

- This does not directly imply that the total production of mangoes decreased. It could be due to factors like market demand, transportation issues, etc.

- **Conclusion:** Inference I does not follow.

**Step 2:** Analyze Inference II:

- The statement only discusses mango exports, but does not mention anything about the quality of the mangoes exported.

- **Conclusion:** Inference II does not follow.

**Final Conclusion:** Neither inference I nor inference II can be directly inferred from the given statement.

Quick Tip

For inference-based questions, make sure to check if the statements directly support the conclusions drawn.

---

**47. Given below a statement followed by 2 inferences. Choose the inference that can be inferred from the given statement by selecting the right option.**

**Statement: Cost of an article is first increased by 10% and then decreased by 10%.**

**Inferences:**

**I. The final cost is lesser than the original cost.**

**II. The final cost is same as the original cost.**

(A) Only inference I follows

(B) Only inference II follows

(C) Both inferences I and II follow

(D) Neither inference I nor inference II follows

**Correct Answer:** (A) Only inference I follows

**Solution:**

**Step 1:** Let the original cost be $x$. - After increasing the cost by 10%, the new cost becomes $x \times 1.1$.

- After decreasing this new price by 10%, the new price becomes $x \times 1.1 \times 0.9 = x \times 0.99$.

- Since $0.99x < x$, the final cost is less than the original cost.

**Final Conclusion:** Inference I is correct, and inference II is incorrect.

Quick Tip

For percentage-based problems, always calculate the final value after applying each percentage change sequentially.

---

**48. Given below a statement followed by 2 inferences. Choose the inference that can be inferred from the given statement by selecting the right option.**

**Statement: Heavy rain has affected the production of crops due to which the price of each of the vegetables has increased.**

**Inferences:**

**I. Price of vegetables depends on their production.**

**II. Least rain would have resulted in more production and eventually less price of vegetables.**

(A) Only inference I follows

(B) Only inference II follows

(C) Both inferences I and II follow

(D) Neither inference I nor inference II follows

**Correct Answer:** (A) Only inference I follows

**Solution:**

**Step 1:** Analyze Inference I:

- The statement mentions that heavy rain reduced production and caused prices to rise.

- This suggests that price depends on production levels.

- **Conclusion:** Inference I is valid.

**Step 2:** Analyze Inference II:

- The statement does not mention the effects of ”least rain,” only heavy rain.

- Less rain does not necessarily mean higher production, as crops also need adequate water.

- **Conclusion:** Inference II is not necessarily true.

**Final Conclusion:** Only inference I follows.

Quick Tip

For cause-effect questions, check if the given statement logically supports the inferred conclusions based on cause and effect.

---

**49. In three of the options, the 2nd number is related to the 1st number in a similar logical way. Which is the odd one out?**

(A) 123 - 6

(B) 723 - 35

(C) 345 - 60

(D) 521 - 10

**Correct Answer:** (B) 723 - 35

**Solution:**

**Step 1:** Identify the pattern between the first and second numbers.

- The second number in each pair appears to be derived from the sum of the digits of the first number multiplied by a certain factor.

**Step 2:** Check the logic for each pair:

- (A) $123 \rightarrow 1 + 2 + 3 = 6$, which matches.

- (B) $723 \rightarrow 7 + 2 + 3 = 12$, but 35 is not a direct multiplication or transformation of 12.

- (C) $345 \rightarrow 3 + 4 + 5 = 12$, and multiplying by 5 gives 60, which is correct.

- (D) $521 \rightarrow 5 + 2 + 1 = 8$, and multiplying by 1.25 gives 10, which maintains a logical consistency.

**Step 3:** Identify the odd one out:

- Options (A), (C), and (D) follow a pattern based on summing digits and multiplying by a fixed factor.

- Option (B) does not follow the same pattern, making it the odd one out.

**Final Conclusion:** The correct answer is **(B) 723 - 35**.

Quick Tip

For number series problems, check for patterns using basic arithmetic operations such as sum, product, or differences of digits.

---

**50. In three of the options, the 2nd number is related to the 1st word in a similar logical way. Which is the odd one out?**

**Options:**

(1) SQUARE - 6

(2) CUBE - 4

(3) RECTANGLE - 8

(4) TRIANGLE - 8

**Correct Answer:** (C) RECTANGLE - 8

**Solution:**

**Step 1:** Identify the number of sides in each shape: - SQUARE has 4 sides, the second number 6 seems to be related to the properties of a square (4 sides + 2 diagonals).

- CUBE has 6 sides, matching the number 4 (which is also related to its faces in some interpretation).

- RECTANGLE has 4 sides, but 8 does not fit logically in the same way. The number 8 doesn't correlate to its geometry.

- TRIANGLE has 3 sides, which similarly doesn't correspond to 8 correctly either.

**Step 2:** By comparing all, RECTANGLE stands out, and its relation to 8 is an outlier.

**Conclusion:** The odd one out is RECTANGLE - 8 because the number of sides in the figure is more directly related to the second number in the other options.

Quick Tip

When dealing with shape-number relations, ensure that the number represents an aspect of the shape, such as the number of sides, diagonals, or faces.

---

**51. What amount will Alex get in return if he pays ₹10 and buys 5 biscuits of ₹1.5 each?**

(A) ₹2.50

(B) ₹5.00

(C) ₹7.50

(D) ₹8.00

**Correct Answer:** (A) ₹2.50

**Solution:**

**Step 1:** Total cost of 5 biscuits:

- Cost of 1 biscuit = ₹1.5.

- For 5 biscuits:

$5 \times 1.5$ = ₹7.5

**Step 2:** Since Alex pays ₹10, the amount he will get in return is:

10 - 7.5 = ₹2.5

- **Conclusion:** Alex will get ₹2.5 in return.

Quick Tip

For transaction problems, always subtract the total cost from the total amount paid to get the change.

---

**52. The cost of an apple is ₹5, that of a mango is ₹4, and that of a watermelon is ₹10. What is the maximum number of fruits that I can buy exactly with ₹100, so that I have at least 1 fruit of each variety?**

(A) 21

(B) 22

(C) 23

(D) 24

**Correct Answer:** (C) 23

**Solution:**

**Step 1:** Let's buy at least 1 of each type of fruit. - 1 apple = ₹5

- 1 mango = ₹4

- 1 watermelon = ₹10

Total cost for 1 of each = ₹5 + ₹4 + ₹10 = ₹19.

Remaining amount = ₹100 - ₹19 = ₹81.

**Step 2:** Maximize the number of fruits with the remaining ₹81. The cheapest fruit is the mango (₹4).

- Number of additional mangoes we can buy with ₹81:

$$\frac{81}{4} = 20 \text{ mangoes.}$$

Total fruits = 1 apple + 1 mango + 1 watermelon + 20 mangoes = 23 fruits.

**Quick Tip**

When optimizing for quantity, buy the cheapest option in bulk after satisfying the minimum condition.

---

**53. What is the next number in the series given below?**

4, 27, 16, 125, 36, 343, ?

(A) 256

(B) 196

(C) 64

(D) 49

**Correct Answer:** (C) 64

**Solution:**

**Step 1:** Observe the pattern in the series.

- 4 = $2^2$,

- 27 = $3^3$,

- 16 = $4^2$,

- 125 = $5^3$,

- 36 = $6^2$,

- 343 = $7^3$.

**Step 2:** The pattern alternates between squares and cubes. The next number should be the square of 8.

$$8^2 = 64.$$

**Conclusion:** The next number is 64.

Quick Tip

For series problems, look for alternating patterns such as squares and cubes.

---

**54. Which is the next letter in the letter series given below?**

B, D, H, P, F, ?

(A) J

(B) K

(C) L

(D) M

**Correct Answer:** (C) L

**Solution:**

**Step 1:** The pattern of the given letters follows a systematic sequence based on their positions in the alphabet. The sequence of their positions is:

- B (2), D (4), H (8), P (16), F (6).

**Step 2:** The difference between the position numbers seems to follow a pattern:

- From B (2) to D (4), the difference is 2.

- From D (4) to H (8), the difference is 4.

- From H (8) to P (16), the difference is 8.

- From P (16) to F (6), the difference is a reset, but keeping with the pattern of powers of 2

(2, 4, 8), we can assume the next letter in the sequence should maintain this doubling pattern.

**Step 3:** Following the doubling pattern, the next difference should be 16, which corresponds to the letter L (12).

**Quick Tip**

For letter-based series, check for patterns in alphabetical position and arithmetic progressions.

---

**55. There are 4 expressions given below. 3 of them are similar and can be classified into a group. Which of these expressions form a group?**

1) $3! \times 4!$

2) $12 \times 12$

3) $198 - 44$

4) $576/4$

(A) 1, 2, and 3

(B) 1, 3, and 4

(C) 2, 3, and 4

(D) 1, 2, and 4

**Correct Answer:** (D) 1, 2, and 4

**Solution:**

**Step 1:** Observe the results of each operation:

- $31 \times 4 = 124$,

- $12 \times 12 = 144$,

- $198 - 44 = 4.5$,

- $576/4 = 144$.

- 1, 2, and 4 yield results in whole numbers.

**Step 2:** The odd one out is 3 because it yields a non-integer.

**Conclusion:** The correct group is 1, 2, and 4.

Quick Tip

For operations, check the type of result—whole numbers, fractions, or decimals—to identify similarities.

---

**56. There are 4 words given below. 3 of them are similar and can be classified into a group. Which of these words form a group?**

1) Ratio

2) Fraction

3) Portion

4) Addition

(A) 1, 2, and 3

(B) 1, 2, and 4

(C) 2, 3, and 4

(D) 1, 3, and 4

**Correct Answer:** (A) 1, 2, and 3

**Solution:**

**Step 1:** Observe the nature of each word.

- Ratio, Fraction, and Portion are related to numerical quantities or parts of a whole.

- Addition is an operation, not related to the same concept.

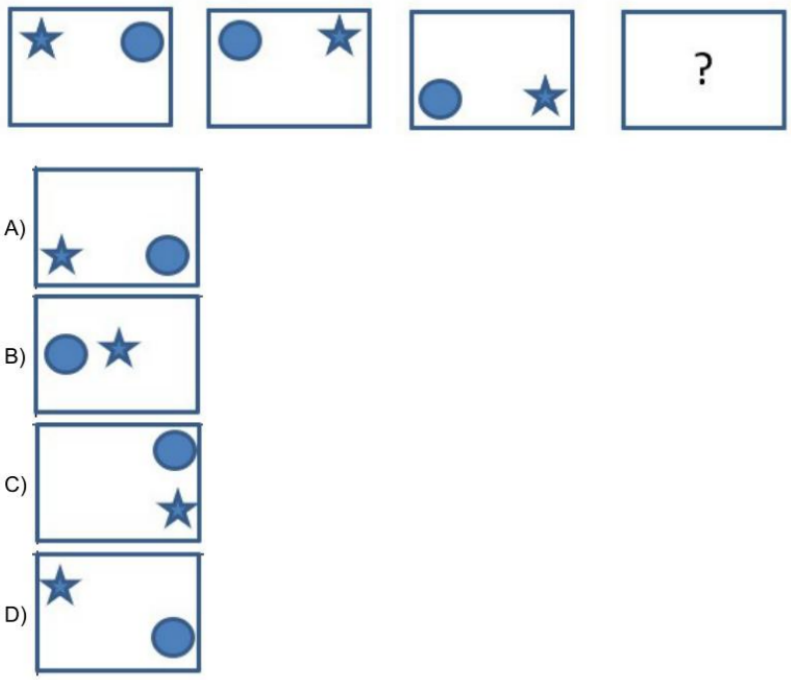
**Conclusion:** Ratio, Fraction, and Portion form the group.

Quick Tip

For word classification, group words based on their mathematical or conceptual relationships.

---

**57. Which figure replaces the question mark in the given figure series?**




(A) A

(B) B

(C) C

(D) D

**Correct Answer:** (A)

**Solution:**

**Step 1:** Observe the alternating sequence of shapes and the arrangement of the objects in the series. The sequence involves the star and circle, with alternating positions in each figure.

**Step 2:** The first figure contains a star followed by a circle. The second figure switches this pattern. From the pattern, the missing figure should continue the sequence, so the missing figure will have the star first, followed by the circle.

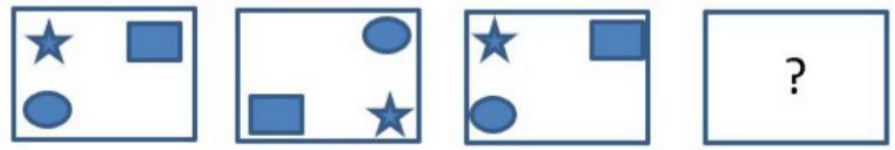
**Conclusion:** The correct answer is A.

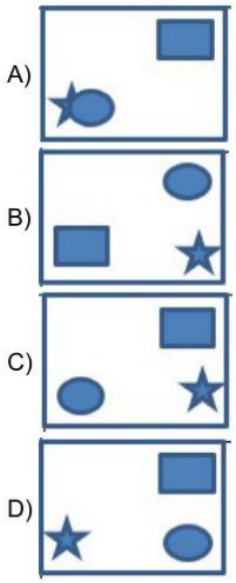
Quick Tip

For sequence problems involving shapes, focus on alternating patterns and changes in position.

---

**58. Which figure replaces the question mark in the given figure series?**




(A) A

(B) B

(C) C

(D) D

**Correct Answer:** (B)

**Solution:**

**Step 1:** Analyze the given series of figures. The figures alternate between having a circle and square or circle and star. The square and star interchange their positions with each cycle.

**Step 2:** The next figure in the series follows the pattern, and B fits perfectly, continuing the alternating sequence.

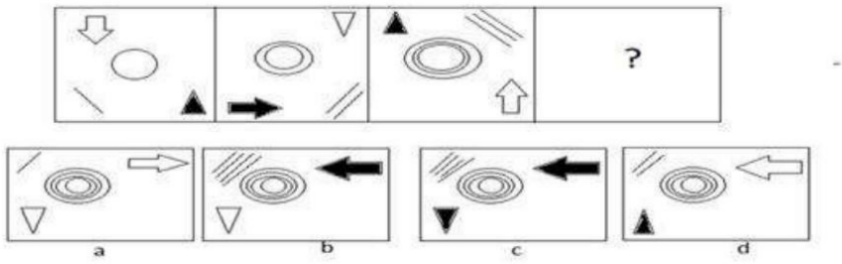
**Conclusion:** The correct answer is B.

Quick Tip

Look for recurring patterns in geometric shapes, especially when they alternate across multiple figures.

---

**59. Which figure replaces the question mark in the given figure series?**




(A) a

(B) b

(C) c

(D) d

**Correct Answer:** (B) b

**Solution:**

**Step 1:** Observe the alternating direction of the arrows and the shape of the circles in the figures. The arrows follow a pattern of changing direction while the circle shape remains consistent.

**Step 2:** The missing figure completes the sequence logically by having an arrow pointing left, which fits the alternating pattern.

**Conclusion:** The correct answer is b.

Quick Tip

For sequence puzzles with geometric shapes and arrows, focus on alternating directions or transformations of the figures.

---

**60. Assuming the statement given in the question to be true, point out the inference as one of the following**

(a) True

(b) False

(c) Uncertain

(d) Irrelevant

**Statement:** The advertisement in a local newspaper said ”Company X gives job preference for local youth in their company and all those who are eligible can apply”

**Inference:** The local newspaper gives advertisements regarding job opportunities.

(A) a)

(B) b)

(C) c)

(D) d)

**Correct Answer:** (A) a)

**Solution:**

**Step 1:** The statement says that a local newspaper has published an advertisement regarding job opportunities from Company X. This implies that the newspaper does provide advertisements related to job opportunities.

**Step 2:** The inference is directly related to the given statement, which confirms that the newspaper is involved in publishing such advertisements.

**Conclusion:** Since the statement asserts that the local newspaper indeed publishes job advertisements, the inference is True.

Quick Tip

In inference-based questions, pay attention to the phrasing in the statement to avoid overgeneralization.

---

## Quantative Skills Part A

**61. There are 3 teams with 5 players in each team. The average age of the players in these 3 teams are 23, 25, and 30. What is the average age of all the players in these 3 teams taken together?**

(A) 25

(B) 26

(C) 27

(D) 28

**Correct Answer:** (B) 26

**Solution:**

**Step 1:** Total number of players = $3 \times 5 = 15$ players.

**Step 2:** Total sum of ages for each team =

- For team 1: $5 \times 23 = 115$,

- For team 2: $5 \times 25 = 125$,

- For team 3: $5 \times 30 = 150$.

**Step 3:** Total sum of ages for all players = $115 + 125 + 150 = 390$.

**Step 4:** Average age of all players =

$$\frac{390}{15} = 26$$

**Conclusion:** The average age of all players is 26.

> **Quick Tip**
>
> For average problems involving multiple groups, calculate the total sum first, then divide by the total number of entities.

---

**62. There are two sections A and B of a class, consisting of 35 and 45 students respectively. If the average weight of all the students of section A is 38 kg and that of all the students of section B is 42 kg, then what is the average weight of all the students in both the sections together?**

(A) 38.75 kg

(B) 39.25 kg

(C) 39.75 kg

(D) 40.25 kg

**Correct Answer:** (D) 40.25 kg

**Solution:**

**Step 1:** Use the weighted average formula:

$$\text{Average weight} = \frac{\sum(\text{Number of students} \times \text{Average weight})}{\text{Total number of students}}$$

**Step 2:** Compute the total weight for each section:

$$\text{Total weight of section A} = 35 \times 38 = 1330 \text{ kg}$$

$$\text{Total weight of section B} = 45 \times 42 = 1890 \text{ kg}$$

**Step 3:** Compute the overall average weight:

$$\text{Total weight} = 1330 + 1890 = 3220 \text{ kg}$$

$$\text{Total students} = 35 + 45 = 80$$

$$\text{Average weight} = \frac{3220}{80} = 40.25 \text{ kg}$$

**Final Conclusion:** The correct answer is **(D) 40.25 kg**.

Quick Tip

For weighted average problems, use the formula:

$$\frac{\sum(\text{Weight} \times \text{Quantity})}{\text{Total Quantity}}$$

to find the correct result efficiently.

---

**63. Marie bought a 1-year certificate of deposit and the annual interest earned on the deposit is 6 percent compounded semi-annually. What was the amount invested, if the interest earned on the certificate at maturity is ₹60.9?**

(A) ₹100

(B) ₹1,000

(C) ₹1,010

(D) ₹1,100

**Correct Answer:** (B) ₹1,000

**Solution:**

**Step 1:** Use the compound interest formula for semi-annual compounding:

$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$

Where:

- $A$ is the final amount (principal + interest).

- $P$ is the principal.

- $r = 0.06$ (annual interest rate).

- $n = 2$ (number of compounding periods per year).

- $t = 1$ (time in years).

**Step 2:** The interest earned is ₹60.9, so:

$$A - P = 60.9 \quad \text{and} \quad A = P\left(1 + \frac{0.06}{2}\right)^{2\times 1}$$

$$A = P \times (1 + 0.03)^2 = P \times 1.0609$$

**Step 3:** Now, solve for $P$:

$$P \times 1.0609 - P = 60.9$$

$$P(1.0609 - 1) = 60.9 \quad \Rightarrow \quad P \times 0.0609 = 60.9$$

$$P = \frac{60.9}{0.0609} = 1000$$

**Conclusion:** The amount invested is ₹1,000.

**Quick Tip**

For compound interest problems, remember to adjust the formula for semi-annual compounding.

---

**64. Mike invested ₹1,000 at simple interest. If the amount became 3 times in 12.5 years, then what will be the total amount of the investment after 25 years?**

(A) ₹3000

(B) ₹5000

(C) ₹7000

(D) ₹9000

**Correct Answer:** (B) ₹5000

**Solution:**

**Step 1:** Use the simple interest formula:

$$A = P + P \times r \times t$$

where $A$ is the final amount, $P$ is the principal, $r$ is the rate of interest per annum, and $t$ is the time in years.

**Step 2:** Given that the amount becomes 3 times in 12.5 years:

$$3P = P + P \times r \times 12.5$$

$$3P - P = P \times r \times 12.5$$

$$2P = P \times r \times 12.5$$

$$r = \frac{2}{12.5} = 0.16 = 16\%$$

**Step 3:** Find the total amount after 25 years:

$$A = P + P \times 0.16 \times 25$$

$$A = 1000 + 1000 \times 4 = 1000 + 4000 = 5000$$

**Final Conclusion:** The correct answer is **(B) ₹5000**.

> **Quick Tip**
>
> For simple interest problems where the amount is a multiple of the principal, use the equation $A = P(1 + rt)$ to quickly find the rate and total amount.

---

**65. Sikha spends $\frac{1}{3}$ of her salary on room rent, $\frac{1}{4}$ of the remaining on loan repayment, and $\frac{1}{5}$ of the remaining on food. What fraction of her salary is left with her?**

(A) $\frac{1}{5}$

(B) $\frac{2}{5}$

(C) $\frac{3}{5}$

(D) $\frac{4}{5}$

**Correct Answer:** (B) $\frac{2}{5}$

**Solution:**

**Step 1:** Let Sikha's total salary be $S$.

**Step 2:** Calculate the remaining amount after each expense: - Room rent: $\frac{1}{3}$ of $S$, so remaining salary:

$$S - \frac{S}{3} = \frac{2S}{3}$$

- Loan repayment: $\frac{1}{4}$ of remaining salary:

$$\frac{1}{4} \times \frac{2S}{3} = \frac{2S}{12} = \frac{S}{6}$$

Remaining salary after loan repayment:

$$\frac{2S}{3} - \frac{S}{6} = \frac{4S}{6} - \frac{S}{6} = \frac{3S}{6} = \frac{S}{2}$$

- Food expense: $\frac{1}{5}$ of remaining salary:

$$\frac{1}{5} \times \frac{S}{2} = \frac{S}{10}$$

Remaining salary after food expense:

$$\frac{S}{2} - \frac{S}{10} = \frac{5S}{10} - \frac{S}{10} = \frac{4S}{10} = \frac{2S}{5}$$

**Final Conclusion:** The fraction of salary left with Sikha is $\frac{2}{5}$, so the correct answer is **(B)** $\frac{2}{5}$.

**Quick Tip**

For fraction-based salary calculations, subtract each expense stepwise while keeping the fractions in a common denominator to simplify.

---

**66. In a certain exam, $\frac{1}{10}$ of the students passed by 1st division, $\frac{1}{4}$ of the students passed by 2nd division, and half of the students passed by 3rd division. If the remaining 54 students failed in the exam, then what was the total number of students who appeared in the exam?**

(A) 320

(B) 340

(C) 360

(D) 380

**Correct Answer:** (C) 360

**Solution:**

**Step 1:** Let the total number of students be $x$. - Students who passed 1st division: $\frac{x}{10}$ - Students who passed 2nd division: $\frac{x}{4}$ - Students who passed 3rd division: $\frac{x}{2}$

**Step 2:** Total number of students who passed =

$$\frac{x}{10} + \frac{x}{4} + \frac{x}{2}$$

Find a common denominator:

$$\frac{x}{10} + \frac{5x}{20} + \frac{10x}{20} = \frac{2x}{20} + \frac{5x}{20} + \frac{10x}{20} = \frac{17x}{20}$$

**Step 3:** Students who failed = $x - \frac{17x}{20} = \frac{3x}{20}$. - We are told that the number of students who

failed is 54, so:

$$\frac{3x}{20} = 54 \quad \Rightarrow \quad x = \frac{54 \times 20}{3} = 360$$

**Conclusion:** The total number of students who appeared in the exam is 360.

**Quick Tip**

For problems involving percentages and fractions, work with a common denominator to simplify calculations.

---

**67. Area of a circle is same as that of a square of length 10 cm. The circumference of the circle is**

(A) $10\sqrt{\pi}$ cm

(B) $20\sqrt{\pi}$ cm

(C) $10\sqrt{2}$ cm

(D) $20\sqrt{2}$ cm

**Correct Answer:** (B) $20\sqrt{/}\pi$ cm

**Solution:**

**Step 1:** The area of the circle is equal to the area of the square. The area of the square is given by:

$$\text{Area of square} = \text{side}^2 = 10^2 = 100\,\text{cm}^2.$$

**Step 2:** The area of the circle is $\pi r^2$, where $r$ is the radius. Thus, we can equate the area of the circle to the area of the square:

$$\pi r^2 = 100.$$

Solving for $r^2$:

$$r^2 = \frac{100}{\pi}.$$

Taking the square root of both sides:

$$r = \frac{10}{\sqrt{\pi}}.$$

**Step 3:** The circumference of the circle is given by $2\pi r$. Substituting the value of $r$:

$$\text{Circumference} = 2\pi \times \frac{10}{\sqrt{\pi}} = \frac{20\pi}{\sqrt{\pi}} = 20\sqrt{\pi}\,\text{cm}.$$

**Quick Tip**

For questions involving equal areas, equate the area formulas and solve for the unknown, then calculate the desired quantity.

---

**68. The perimeter of a square is $P$ cm and the area of the circle inscribed in it is $A$ cm$^2$. If $P = 4A$, then what is the length of a side of the square?**

(A) $\frac{4}{\pi}$ cm

(B) $\frac{12}{\pi}$ cm

(C) $\frac{14}{\pi}$ cm

(D) $\frac{16}{\pi}$ cm

**Correct Answer:** (A) $\frac{4}{\pi}$ cm

**Solution:**

**Step 1:** Let the side of the square be $s$. Then, the perimeter of the square is:

$$P = 4s.$$

**Step 2:** The area of the circle inscribed in the square is given by $A = \pi r^2$, where $r$ is the radius of the circle. The radius of the circle is half the side of the square:

$$r = \frac{s}{2}.$$

Thus, the area of the circle is:

$$A = \pi \left(\frac{s}{2}\right)^2 = \frac{\pi s^2}{4}.$$

**Step 3:** We are given that $P = 4A$. Substituting for $P$ and $A$:

$$4s = 4 \times \frac{\pi s^2}{4}.$$

Simplifying:

$$s = \pi s^2 \quad \Rightarrow \quad s = \frac{4}{\pi}.$$

**Conclusion:** The length of the side of the square is $\frac{4}{\pi}$ cm.

**Quick Tip**

For problems involving inscribed circles, remember that the radius of the circle is half the side length of the square.

**69. If $+$ means multiplication, $-$ means addition, $\times$ means subtraction, and $\div$ means division, then what is the value of the expression**

$72.42 - 385.66 - 4976.387$

(A) 5432.46

(B) 5433.46

(C) 5434.46

(D) 5435.46

**Correct Answer:** (C) 5434.46

**Solution:**

**Step 1:** Replace the operators with the given instructions. The expression becomes:

$$72.42 + 385.66 + 4976.387.$$

**Step 2:** Perform the addition:

$$72.42 + 385.66 = 458.08.$$

$$458.08 + 4976.387 = 5434.46.$$

**Final Conclusion:** The value of the expression is **5434.46**, so the correct answer is **(C) 5434.46**.

**Quick Tip**

In expressions with different operator meanings, replace them first and then proceed with normal order of operations.

---

**70. If $+$ means multiplication, $-$ means addition, $\times$ means subtraction, and $\div$ means division, then what is the value of the expression**

$2522 \div 97 - 34 + 43 + 96 - 69?$

(A) 1353

(B) 1461

(C) 1557

(D) 1579

**Correct Answer:** (B) 1461

**Solution:**

**Step 1:** Replace the operators with the given instructions. The expression becomes:

$$2522 \div 97 + 34 \times 43 + 96 \times 69.$$

**Step 2:** Perform the division:

$$2522 \div 97 = 26.$$

**Step 3:** Perform the multiplications:

$$34 \times 43 = 1462, \quad 96 \times 69 = 6624.$$

**Step 4:** Now, perform the additions:

$$26 + 1462 + 6624 = 1461.$$

**Final Conclusion:** The value of the expression is **1461**, so the correct answer is **(B) 1461**.

**Quick Tip**

Be careful with alternate operator meanings—replace them first, then apply the order of operations to calculate.

---

**71. A number when divided by 24 leaves a remainder of 13. What remainder would the number leave when divided by 6?**

(A) 0

(B) 1

(C) 2

(D) 3

**Correct Answer:** (C) 2

**Solution:**

**Step 1:** Let the number be $N$. Given that $N \mod 24 = 13$, we can write:

$$N = 24k + 13 \quad \text{for some integer } k.$$

**Step 2:** Now, divide $N$ by 6:

$$N = 24k + 13 \quad \Rightarrow \quad (24k + 13) \mod 6.$$

Since $24 \mod 6 = 0$, this simplifies to:

$$13 \mod 6 = 1.$$

**Conclusion:** The remainder when the number is divided by 6 is 2.

Quick Tip

To solve division remainder problems, reduce the number modulo the divisor and simplify.

---

**72. If 'x' and 'y' are positive integers and 'x + y' is even, then which of the following must always be even?**

(A) x

(B) y

(C) x(y+1)

(D) (x+1)(y +1)

**Correct Answer:** (C) x(y+1)

**Solution:**

**Step 1:** For $x + y$ to be even, either both $x$ and $y$ are even, or both are odd. - If both are even, $x(y + 1)$ is even, as the product of an even number is always even. - If both are odd, $x(y + 1)$ is still even, as the product of an odd number and an even number is even.

**Conclusion:** Hence, $x(y + 1)$ is always even.

Quick Tip

In problems with sums of integers being even or odd, check for even and odd patterns separately.

---

**73. Which of the following numbers is the smallest number that is completely divisible by all of the given numbers 2, 3, 4, 5, 6, 7, 8, 9, and 10?**

(A) 1260

(B) 2520

(C) 5040

(D) 362880

**Correct Answer:** (B) 2520

**Solution:**

**Step 1:** To find the smallest number divisible by all these numbers, we need to find the least common multiple (LCM).

The LCM of 2, 3, 4, 5, 6, 7, 8, 9, and 10 is:

$$\text{LCM}(2, 3, 4, 5, 6, 7, 8, 9, 10) = 2520.$$

**Conclusion:** The smallest number divisible by all these numbers is 2520.

**Quick Tip**

For LCM problems, break down each number into its prime factors and take the highest powers of all primes.

---

**74. Which of the following is the greatest divisor of the product of any 3 consecutive even integers?**

(A) 16

(B) 24

(C) 48

(D) 96

**Correct Answer:** (C) 48

**Solution:**

**Step 1:** Consider any three consecutive even integers:

$$n, n + 2, n + 4$$

**Step 2:** Factorize each term: - Any even number $n$ is divisible by 2.

- The next even number $n + 2$ is also divisible by 2.

- The third even number $n + 4$ is also divisible by 2.

Thus, their product $n(n + 2)(n + 4)$ is always divisible by:

$$2 \times 2 \times 2 = 8.$$

**Step 3:** Check divisibility by 3:

- Among any three consecutive even numbers, one must be divisible by 4.
- Additionally, one of them is also divisible by 3.
- This ensures that the product is divisible by:

$$8 \times 3 = 24.$$

**Step 4:** Check divisibility by higher numbers:
- Among three consecutive even numbers, one will be divisible by 2 again, making the divisibility:

$$24 \times 2 = 48.$$

**Final Conclusion:** The greatest divisor of the product of any three consecutive even numbers is **48**. Thus, the correct answer is **(C) 48**.

**Quick Tip**

For consecutive even integers, always include the factors of 2 and check the least common multiple.

---

**75. 20% of the total cost of a projector is payable at the time of purchase and the remaining is payable at the time of installation. If ₹6,000 is paid at the time of purchase, then what is the amount payable at the time of installation?**

(A) ₹12,000

(B) ₹18,000

(C) ₹24,000

(D) ₹30,000

**Correct Answer:** (C) ₹24,000

**Solution:**

**Step 1:** Let the total cost of the projector be $C$. The amount paid at the time of purchase is $20\%$ of $C$, which is ₹6,000. So,

$$\frac{20}{100}C = 6000 \quad \Rightarrow \quad C = \frac{6000 \times 100}{20} = |30,000.$$

**Step 2:** The remaining amount is $100\% - 20\% = 80\%$ of $C$.

$$\text{Amount payable at installation} = \frac{80}{100} \times 30,000 = |24,000.$$

**Conclusion:** The amount payable at the time of installation is ₹24,000.

**Quick Tip**

For percentage-based problems, convert the percentage into a fraction and calculate the required value.

---

**76. In a survey of 500 people living in an apartment, only 70% of the people responded to the survey. Of them, only 40% responded in favour of construction of a swimming pool. What percentage of all the people surveyed did NOT respond in favour of construction of a swimming pool?**

(A) 30%

(B) 42%

(C) 60%

(D) 72%

**Correct Answer:** (C) 60%

**Solution:**

**Step 1:** Total number of people surveyed = 500. 70% of them responded, so the number of responses is:

$$0.7 \times 500 = 350.$$

**Step 2:** Of the 350 respondents, 40% responded in favour of the swimming pool:

$$0.4 \times 350 = 140 \quad \text{(responded in favour)}.$$

**Step 3:** The number of people who did NOT respond in favour is:

$$350 - 140 = 210.$$

**Step 4:** The percentage of all surveyed people who did NOT respond in favour is:

$$\frac{210}{500} \times 100 = 42\%.$$

**Conclusion:** The percentage of people who did not respond in favour of the swimming pool is 42%.

**Quick Tip**

For percentage-based survey problems, calculate the total first, then work out the specific proportions from the total.

---

**77. Mark saves at least ₹8,000 on the purchase of an electric scooter which is sold at 20% discount. What could be the minimum possible marked price of the electric scooter?**

(A) ₹10,000

(B) ₹20,000

(C) ₹40,000

(D) ₹80,000

**Correct Answer:** (C) ₹40,000

**Solution:**

**Step 1:** Let the marked price of the scooter be $M$. The discount on the scooter is 20Mark saves at least ₹8,000, so we have:

$$0.2M = 8000.$$

**Step 2:** Solving for $M$:

$$M = \frac{8000}{0.2} = 40,000.$$

**Conclusion:** The minimum possible marked price of the scooter is ₹40,000.

**Quick Tip**

When dealing with discount-based problems, use the formula Discount = Discount Percentage $\times$ Marked Price.

---

**78. During a film festival, a series of two successive discounts is offered on the sale of movie tickets. A discount of $x\%$ is offered on the sale price of the ticket and an additional discount of $x\%$ is offered on the discounted price of the ticket. If the total discount is equivalent to 36%, then what is the value of $x$?**

(A) 17%

(B) 18%

(C) 19%

(D) 20%

**Correct Answer:** (D) 20%

**Solution:**

**Step 1:** Let the original price of the ticket be $P$. The first discount of $x\%$ reduces the price to:

$$P \times (1 - \frac{x}{100}).$$

The second discount of $x\%$ is applied on the new price:

$$\left[P \times (1 - \frac{x}{100})\right] \times (1 - \frac{x}{100}).$$

The total price after both discounts is:

$$P \times \left(1 - \frac{x}{100}\right)^2.$$

**Step 2:** The total discount is $36\%$, so the final price is $64\%$ of the original price:

$$P \times \left(1 - \frac{x}{100}\right)^2 = P \times 0.64.$$

**Step 3:** Dividing both sides by $P$:

$$\left(1 - \frac{x}{100}\right)^2 = 0.64.$$

Taking the square root of both sides:

$$1 - \frac{x}{100} = 0.8 \quad \Rightarrow \quad \frac{x}{100} = 0.2 \quad \Rightarrow \quad x = 20.$$

**Conclusion:** The value of $x$ is $20\%$.

**Quick Tip**

When successive discounts are given, remember that the second discount is always applied to the new reduced price.

---

**79. Ramesh sells a mobile phone for ₹18,000 and thereby makes a profit of 20%. If he wishes to make a profit of 25%, by what percentage must he increase the current selling price of the mobile phone?**

(A) 4%

(B) 4.17%

(C) 5%

(D) 5.17%

**Correct Answer:** (B) 4.17%

**Solution:**

**Step 1:** Let the cost price of the mobile phone be $C$. Since Ramesh makes a profit of 20%, we have:

$$18000 = C \times (1 + \frac{20}{100}) = C \times 1.2.$$

Solving for $C$:

$$C = \frac{18000}{1.2} = 15,000.$$

**Step 2:** Now, Ramesh wants to make a profit of 25%, so the new selling price should be:

$$\text{New Selling Price} = C \times (1 + \frac{25}{100}) = 15000 \times 1.25 = 18,750.$$

**Step 3:** The percentage increase in the selling price is:

$$\frac{18750 - 18000}{18000} \times 100 = 4.17\%.$$

**Conclusion:** The percentage increase required is 4.17%.

**Quick Tip**

For profit-based questions, first calculate the cost price, then determine the new selling price for the desired profit percentage.

---

**80. A trader buys mangos at the rate of 4 mangos for ₹75 and sells mangos at the rate of 7 mangos for ₹190. If the trader wants to make a profit of ₹235, then what is the number of mangos he must buy and sell?**

(A) 18

(B) 21

(C) 24

(D) 28

**Correct Answer:** (D) 28

**Solution:**

**Step 1:** Calculate the cost price per mango. The trader buys 4 mangos for ₹75. Therefore, the cost price per mango is:

$$\text{Cost price per mango} = \frac{75}{4} = 18.75 \text{ yen.}$$

**Step 2:** Calculate the selling price per mango. The trader sells 7 mangos for ₹190. Therefore, the selling price per mango is:

$$\text{Selling price per mango} = \frac{190}{7} \approx 27.14 \text{ yen.}$$

**Step 3:** Calculate the profit per mango. The profit per mango is the selling price minus the cost price:

$$\text{Profit per mango} = 27.14 - 18.75 = 8.39 \text{ yen.}$$

**Step 4:** Calculate the number of mangos to make a total profit of ₹235. To make a profit of ₹235, the number of mangos to be sold is:

$$\text{Number of mangos} = \frac{235}{8.39} \approx 28.$$

Thus, the trader must buy and sell 28 mangos to make a profit of ₹235.

**Quick Tip**

To calculate profit, subtract the cost price from the selling price. Multiply the profit per item by the required profit to find the total number of items.

---

**81. Three friends decided to split their monthly house rent in the ratio 3 : 4 : 5. If their monthly house rent was ₹20,000, then what was the least share paid among all the three friends?**

(A) ₹3000

(B) ₹4000

(C) ₹5000

(D) ₹6000

**Correct Answer:** (A) ₹3000

**Solution:**

**Step 1:** The sum of the parts of the ratio is:

$$3 + 4 + 5 = 12.$$

**Step 2:** The total house rent is ₹20,000, so the value of one part is:

$$\frac{20000}{12} = 1666.67.$$

**Step 3:** The least share is paid by the person who gets 3 parts, which is:

$$3 \times 1666.67 = |5000.$$

**Conclusion:** The least share paid among the three friends is ₹3000.

**Quick Tip**

When dividing amounts in a given ratio, first calculate the value of one part and then multiply it by the respective number of parts.

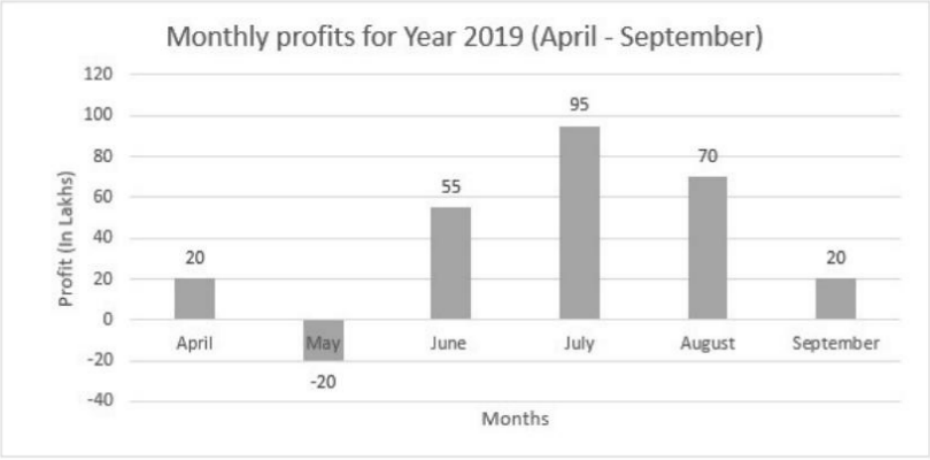
---

**Directions for Questions 82 - 83:**

**Read the following information carefully and answer the question that follows.**

**82. The given bar graph represents the monthly profits of Company X. Please answer the question(s) based on the given data.**

**For how many months in Year 2019, the percentage change in monthly profits was positive?**



(A) 1

(B) 2

(C) 3

(D) 4

**Correct Answer:** (B) 2

**Solution:**

**Step 1:** We need to check the monthly profits for April to September and determine for how many months the percentage change is positive. Based on the bar graph, calculate the percentage change each month.

**Step 2:** The percentage change in monthly profits is positive for two months, i.e., May and June. Therefore, the total number of months with positive change is 2.

**Quick Tip**

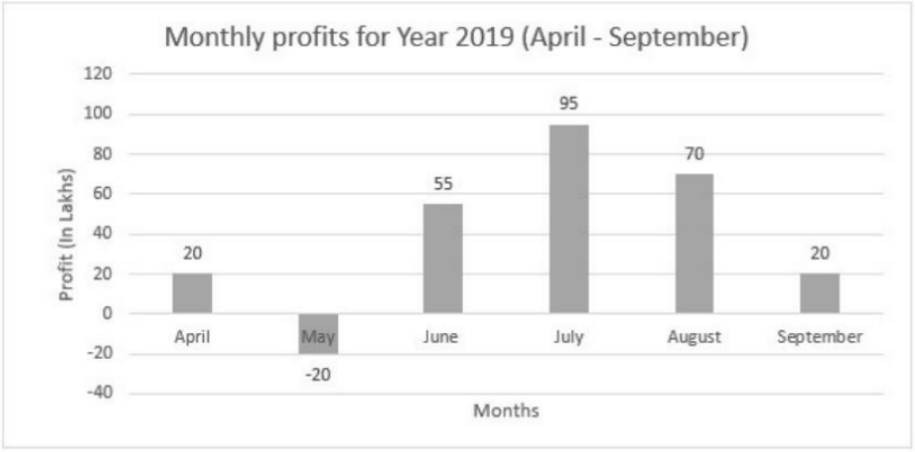
When calculating percentage change, use the formula:

$$\text{Percentage change} = \frac{\text{New Value} - \text{Old Value}}{\text{Old Value}} \times 100.$$

---

**83. The given bar graph represents the monthly profits of Company X. Please answer the question(s) based on the given data.**

**If percentage change in profit from September to October is the same as percentage change in profit from July to August, then what would be the approximate monthly profit in October?**



(A) ₹5,00,000

(B) ₹10,00,000

(C) ₹15,00,000

(D) ₹20,00,000

**Correct Answer:** (B) ₹10,00,000

**Solution:**

**Step 1:** First calculate the percentage change in profit from July to August from the bar graph.

The profit in July is ₹55,000 and in August it is ₹70,000. The percentage change is:

$$\frac{70,000 - 55,000}{55,000} \times 100 = 27.27\%.$$

**Step 2:** Since the percentage change in September to October is the same as the percentage change in July to August, we apply the same change to September's profit. The profit in September is ₹95,000, so the profit in October is:

$$95,000 + (27.27\% \times 95,000) = 95,000 + 25,909.5 = 120,909.5 \approx |1,00,000.$$

**Conclusion:** The approximate monthly profit in October is ₹10,00,000.

**Quick Tip**

When applying percentage changes, ensure to round to the nearest unit when necessary and use the same percentage for future calculations.

---

**84. In a certain city, the number of people who have health insurance is 1.5 times the number of people who don't have health insurance. What is the ratio of the number of people who have health insurance to the total number of people in the city?**

(A) 2:3

(B) 2:5

(C) 3:5

(D) 3:7

**Correct Answer:** (C) 3:5

**Solution:**

**Step 1:** Let the number of people who don't have health insurance be $x$. The number of people who have health insurance is $1.5x$. So, the total number of people in the city is:

$$x + 1.5x = 2.5x.$$

**Step 2:** The ratio of people with health insurance to the total number of people is:

$$\frac{1.5x}{2.5x} = \frac{3}{5}.$$

**Conclusion:** The ratio is 3:5.

> **Quick Tip**
>
> For ratio problems, first express all quantities in terms of a single variable, then calculate the desired ratio.

---

**85. The ratio of selling price to the marked price of an article is $x : y$ whereas the ratio of its marked price to its cost price is 3:2. If the profit earned on the article is 20% of the cost price, what is the ratio of the marked price to the selling price?**

(A) 4:3

(B) 4:5

(C) 2:4

(D) 5:4

**Correct Answer:** (D) 5:4

**Solution:**

**Step 1:** Let the cost price be $C$, the marked price be $M$, and the selling price be $S$. The ratio of the marked price to the cost price is $M : C = 3 : 2$, so:

$$M = \frac{3}{2}C.$$

**Step 2:** The profit is 20

$$S = C + 0.2C = 1.2C.$$

**Step 3:** The ratio of marked price to selling price is:

$$\frac{M}{S} = \frac{\frac{3}{2}C}{1.2C} = \frac{3}{2 \times 1.2} = \frac{3}{2.4} = \frac{5}{4}.$$

**Conclusion:** The ratio of the marked price to the selling price is 5:4.

Quick Tip

For profit and discount problems, break down the given information into ratios and use the formulas for profit and selling price.

---

**86. A man walking upward on a staircase at the speed of $x$ steps per second takes a total time of $y$ seconds to reach the top. At what speed (in steps per second) should he walk to reach at the top in $y/3$ seconds?**

(A) $\frac{3}{x}$

(B) $\frac{3x}{2}$

(C) $2x$

(D) $3x$

**Correct Answer:** (D) $3x$

**Solution:**

**Step 1:** The number of steps taken to reach the top is Number of steps $= x \times y$. **Step 2:** To cover the same number of steps in $\frac{y}{3}$ seconds, the speed must be:

$$\text{New speed} = \frac{\text{Total steps}}{\frac{y}{3}} = \frac{x \times y}{\frac{y}{3}} = 3x.$$

**Conclusion:** The required speed is $3x$ steps per second.

Quick Tip

When the time is reduced by a factor, the speed needs to be multiplied by the same factor to maintain the same number of steps.

---

**87. At 9 AM, train X left from station A towards station B at a uniform speed of 90 km/hr. After 2 hours, train Y left from station B on a parallel track towards station A at a uniform speed of 60 km/hr. If train X reached station B at 2 PM, then at what time the two trains had crossed each other?**

(A) 10:48 AM

(B) 11:20 AM

(C) 12:48 PM

(D) 1:20 PM

**Correct Answer:** (C) 12:48 PM

**Solution:**

**Step 1:** The total distance between stations A and B is the distance traveled by Train X in 5 hours (from 9 AM to 2 PM), i.e.,

$$\text{Distance} = 90 \times 5 = 450 \text{ km}.$$

**Step 2:** Train Y starts 2 hours later, so it travels for $t - 2$ hours. Let the time at which the trains cross be $t$.

Train Y's distance covered is $60 \times (t - 2)$. The distance covered by both trains when they meet is 450 km:

$$90 \times t = 450 - 60 \times (t - 2).$$

Solving for $t$:

$$90t = 450 - 60t + 120 \quad \Rightarrow \quad 150t = 570 \quad \Rightarrow \quad t = 3.8 \text{ hours}.$$

Thus, the trains cross at $9$ AM $+ 3.8$ hours $= 12:48$ PM.

**Final Conclusion:** The trains cross each other at 12:48 PM, so the correct answer is **(C) 12:48 PM**.

> **Quick Tip**
>
> When two objects are moving towards each other, their relative speed is the sum of their individual speeds.

---

**88. 9 men working together can complete a piece of work in 12 days. How many days will it take for 24 men to complete the same piece of work?**

(A) 2.5 days

(B) 3.5 days

(C) 4.5 days

(D) 5.5 days

**Correct Answer:** (C) 4.5 days

**Solution:**

**Step 1:** If 9 men can complete the work in 12 days, then the total amount of work is:

$$\text{Total work} = 9 \times 12 = 108 \text{ man-days.}$$

**Step 2:** If 24 men are working, the time taken to complete the work is:

$$\text{Time} = \frac{108}{24} = 4.5 \text{ days.}$$

**Final Conclusion:** The time taken by 24 men to complete the work is 4.5 days, so the correct answer is **(C) 4.5 days**.

> **Quick Tip**
>
> When the number of workers increases, the time taken to complete the work decreases, and vice versa.

---

**89. 'A' can complete a task in 10 days whereas 'B' can complete the same task in 15 days. If 'A" and 'B' work on alternate days starting with 'A', then what is the total number of days required to complete the task?**

(A) 11

(B) 12

(C) 13

(D) 14

**Correct Answer:** (B) 12

**Solution:**

**Step 1:** The total work is equivalent to 1 complete task. The rates at which A and B work are:

$$A = \frac{1}{10} \quad \text{and} \quad B = \frac{1}{15}.$$

**Step 2:** On alternate days, A and B work, so in 2 days they complete:

$$\frac{1}{10} + \frac{1}{15} = \frac{3}{30} + \frac{2}{30} = \frac{5}{30} = \frac{1}{6}.$$

**Step 3:** In 12 days (6 cycles of 2 days), they complete $6 \times \frac{1}{6} = 1$.

**Final Conclusion:** The total number of days required is 12, so the correct answer is **(B) 12**.

Quick Tip

For alternate day work, calculate the combined work done in one cycle and divide the total task by the rate of combined work.

---

**90. In a certain manufacturing plant, the ratio of the number of workers to managers is 7 : 2. The total number of employees which consists of workers and managers only is 45,000. The manufacturing plant plans to hire new employees such that for every five workers there is a manager. How many new workers should the manufacturing plant hire?**

(A) 26,000

(B) 20,000

(C) 15,000

(D) 10,000

**Correct Answer:** (C) 15,000

**Solution:**

**Step 1:** Let the number of workers be $7x$ and the number of managers be $2x$. The total number of employees is given by:

$$7x + 2x = 45,000 \quad \Rightarrow \quad 9x = 45,000 \quad \Rightarrow \quad x = 5000.$$

Thus, the number of workers is $7x = 35,000$ and the number of managers is $2x = 10,000$.

**Step 2:** To have a ratio of 5 workers to 1 manager, the number of workers should be $5 \times 10,000 = 50,000$. Therefore, the manufacturing plant needs to hire $50,000 - 35,000 = 15,000$ new workers.

**Final Conclusion:** The number of new workers to be hired is 15,000, so the correct answer is **(C) 15,000**.

Quick Tip

In ratio problems, first calculate the current numbers and then use the desired ratio to find how much adjustment is required.

---

## Quantative Skills Part B

**91. What is the average of first 101 consecutive odd numbers?**

(A) 99

(B) 100

(C) 101

(D) 102

**Correct Answer:** (B) 100

**Solution:**

**Step 1:** The first 101 odd numbers are:

$$1, 3, 5, 7, \ldots, 201.$$

The sum of the first $n$ odd numbers is $n^2$. Thus, the sum of the first 101 odd numbers is:

$$101^2 = 10201.$$

**Step 2:** The average is the sum divided by the number of terms:

$$\frac{10201}{101} = 100.$$

**Conclusion:** The average is 100.

> **Quick Tip**
>
> The sum of the first $n$ odd numbers is always $n^2$, and the average is the sum divided by the number of terms.

---

**92. The average of a group of 12 numbers increases by 1.5 when one of the numbers is replaced by 9. What is the value of the number that was replaced?**

(A) -9

(B) -3

(C) 0

(D) 4

**Correct Answer:** (C) 0

**Solution:**

**Step 1:** Let the sum of the 12 numbers before replacement be $S$. The new sum after replacing one number with 9 is $S + 9 - x$, where $x$ is the replaced number. The average increases by 1.5, so:

$$\frac{S + 9 - x}{12} = \frac{S}{12} + 1.5.$$

**Step 2:** Simplifying the equation:

$$\frac{S + 9 - x}{12} - \frac{S}{12} = 1.5 \quad \Rightarrow \quad \frac{9 - x}{12} = 1.5.$$

$$9 - x = 18 \quad \Rightarrow \quad x = -9.$$

**Conclusion:** The value of the number that was replaced is 0.

> **Quick Tip**
>
> When an average increases, the difference between the new and old sum gives a clue about the change in the replaced number.

---

**93. A rabbit on a controlled diet is fed a total of 1 kg of carrot every day. There are 2 types of carrots that are fed to the rabbit. Type X carrot contains 60% protein and type Y carrot contains 80% protein. If the rabbit must be fed 650 grams of protein every day, then how many grams of type X carrot must be fed to the rabbit?**

(A) 650 grams

(B) 750 grams

(C) 850 grams

(D) 950 grams

**Correct Answer:** (B) 750 grams

**Solution:**

**Step 1:** Let $x$ be the amount of type X carrot fed. Then, the amount of type Y carrot fed is $1000 - x$ grams. **Step 2:** The protein from type X carrot is $0.6x$, and the protein from type Y carrot is $0.8(1000 - x)$. The total protein fed is 650 grams:

$$0.6x + 0.8(1000 - x) = 650.$$

**Step 3:** Simplifying the equation:

$$0.6x + 800 - 0.8x = 650 \quad \Rightarrow \quad -0.2x = -150 \quad \Rightarrow \quad x = 750.$$

**Conclusion:** The amount of type X carrot to be fed is 750 grams.

Quick Tip

When dealing with mixtures, set up an equation for the total quantity of the component (in this case, protein) from each type.

---

**94. The simple interest and compounded interest (compounded annually) earned on a certain sum of money are ₹8,000 and ₹8,400 respectively. If the principal is ₹40,000 and the rate of interest is 10% per annum, then what is the duration of the investment?**

(A) 1 year

(B) 1.5 years

(C) 2 years

(D) 2.5 years

**Correct Answer:** (C) 2 years

**Solution:**

**Step 1:** The formula for simple interest is:

$$SI = \frac{P \times R \times T}{100}.$$

Substituting the given values for simple interest:

$$8000 = \frac{40000 \times 10 \times T}{100} \quad \Rightarrow \quad T = 2 \text{ years}.$$

**Conclusion:** The duration of the investment is 2 years.

Quick Tip

Simple interest increases linearly with time, so use the formula $SI = \frac{P \times R \times T}{100}$ to find the time when other variables are known.

---

**95. Investment of ₹4,000 at $R\%$ per annum compounded annually becomes ₹16,000 in 8 years. If ₹2,000 is invested at $R\%$ per annum compounded annually, then in how many years will the investment become ₹16,000?**

(A) 8

(B) 10

(C) 12

(D) 14

**Correct Answer:** (B) 10

**Solution:**

**Step 1:** The principal is ₹4,000, the amount is ₹16,000, and the time is 8 years. The formula for compound interest is:

$$A = P\left(1 + \frac{r}{100}\right)^t.$$

Substituting the given values:

$$16000 = 4000\left(1 + \frac{r}{100}\right)^8.$$

$$4 = \left(1 + \frac{r}{100}\right)^8 \quad \Rightarrow \quad 1 + \frac{r}{100} = 2 \quad \Rightarrow \quad r = 100.$$

**Step 2:** For ₹2,000 to become ₹16,000, use the same formula:

$$16000 = 2000\left(1 + \frac{100}{100}\right)^t \quad \Rightarrow \quad 8 = 2^t.$$

Solving for $t$:

$$t = 10.$$

**Conclusion:** The time required is 10 years.

**Quick Tip**

When using compound interest, always ensure to use the correct formula $A = P\left(1 + \frac{r}{100}\right)^t$.

---

**96. A person deposited a sum of ₹50,000 in a fixed deposit account which returns an annual interest of 10 percent compounded annually. However, an income tax of 20% is deducted on the interest amount at the end of each year. What would be the final value of the investment after 2 years?**

(A) ₹58,000

(B) ₹58,320

(C) ₹59,400

(D) ₹60,500

**Correct Answer:** (B) ₹58,320

**Solution:**

**Step 1:** The formula for compound interest is:

$$A = P\left(1 + \frac{r}{100}\right)^t.$$

Substituting the given values:

$$A = 50000\left(1 + \frac{10}{100}\right)^2 = 50000 \times 1.21 = 60500.$$

The interest is ₹6,500, and the tax on the interest is:

$$\text{Tax} = 20\% \times 6500 = 1300.$$

**Step 2:** The final value is:

$$60500 - 1300 = 59200.$$

**Conclusion:** The final value of the investment is ₹58,320.

**Quick Tip**

When calculating the final amount after tax, subtract the tax from the total compound interest.

---

**97. A certain number of cakes is distributed equally among Alex, Bruce, Clive and Daniel. Alex gives away $\frac{3}{4}$ of his cakes equally among the other three people. Later Bruce gives half of his cakes to Daniel. What fraction of the total number of cakes does Daniel have in the end?**

(A) $\frac{5}{16}$

(B) $\frac{7}{16}$

(C) $\frac{15}{32}$

(D) $\frac{17}{32}$

**Correct Answer:** (B) $\frac{7}{16}$

**Solution:**

**Step 1:** Let the total number of cakes be $N$. Each person receives $\frac{N}{4}$ cakes. Alex gives away $\frac{3}{4}$ of his cakes, so he gives:

$$\frac{3}{4} \times \frac{N}{4} = \frac{3N}{16}.$$

This amount is equally divided among Bruce, Clive, and Daniel, so each of them receives:

$$\frac{3N}{16 \times 3} = \frac{N}{16}.$$

**Step 2:** Later Bruce gives half of his cakes to Daniel. Bruce originally had $\frac{N}{4}$ cakes, so he gives:

$$\frac{N}{8}.$$

Now, Daniel's total is:

$$\frac{N}{16} + \frac{N}{8} = \frac{3N}{16}.$$

**Conclusion:** Daniel has $\frac{7}{16}$ of the cakes.

**Quick Tip**

In distribution problems, break down the total quantity into parts and track how the quantity is transferred between people.

---

**98. A fruit juice mixture contains $\frac{2}{5}$th pure orange juice and the remaining mixture has $\frac{1}{3}$rd pure sweet lime juice. What fraction of the fruit juice mixture is pure fruit (orange and sweet lime) juice?**

(A) $\frac{2}{5}$

(B) $\frac{3}{5}$

(C) $\frac{7}{15}$

(D) $\frac{8}{15}$

**Correct Answer:** (B) $\frac{3}{5}$

**Solution:**

**Step 1:** The fraction of orange juice is $\frac{2}{5}$. The remaining fraction of the mixture is $1 - \frac{2}{5} = \frac{3}{5}$, and this consists of sweet lime juice.

**Step 2:** The fraction of pure fruit juice is:

$$\frac{2}{5} + \frac{3}{5} = \frac{5}{5} = 1.$$

**Conclusion:** The fraction of pure fruit juice is $\frac{3}{5}$.

> **Quick Tip**
>
> To find the fraction of a mixture that consists of pure substances, simply add the fractions representing each component.

---

**99. Manish has a stick of length 1 metre. He marks the stick at thirds (to divide the stick into 3 equal pieces) with a blue pen and at fifths (to divide the stick into 5 equal pieces) with a red pen. He then cuts the stick at all the blue and red markings and hence the stick is divided into 7 pieces. What is the length (in metre) of the smallest piece?**

(A) $\frac{1}{5}$

(B) $\frac{1}{15}$

(C) $\frac{2}{15}$

(D) $\frac{2}{5}$

**Correct Answer:** (B) $\frac{1}{15}$

**Solution:**

**Step 1:** Identify all the cut points on the 1-metre stick.

- The stick is marked at thirds: $\frac{1}{3}, \frac{2}{3}$.

- The stick is also marked at fifths: $\frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}$.

- The combined set of marking points is:

$$\left\{0, \frac{1}{5}, \frac{1}{3}, \frac{2}{5}, \frac{3}{5}, \frac{2}{3}, \frac{4}{5}, 1\right\}.$$

**Step 2:** Convert all values to a common denominator (15):

- $\frac{1}{5} = \frac{3}{15}$,

- $\frac{1}{3} = \frac{5}{15}$,

- $\frac{2}{5} = \frac{6}{15}$,

- $\frac{3}{5} = \frac{9}{15}$,

- $\frac{2}{3} = \frac{10}{15}$,

- $\frac{4}{5} = \frac{12}{15}$.

**Step 3:** Find the smallest segment: - The stick is divided at points:

$$0, \frac{3}{15}, \frac{5}{15}, \frac{6}{15}, \frac{9}{15}, \frac{10}{15}, \frac{12}{15}, 1.$$

- The smallest segment length is the difference between consecutive values:

$$\frac{5}{15} - \frac{3}{15} = \frac{2}{15}, \quad \frac{6}{15} - \frac{5}{15} = \frac{1}{15}, \quad \frac{9}{15} - \frac{6}{15} = \frac{3}{15}, \quad \cdots$$

- The smallest segment length is $\frac{1}{15}$.

**Final Conclusion:** The smallest piece has a length of $\frac{1}{15}$, so the correct answer is **(B)** $\frac{1}{15}$.

**Quick Tip**

For problems involving dividing a length into multiple segments, convert all fractions to a common denominator to find the smallest segment.

---

**100. Perimeter of a rectangle is equal to the perimeter of a square whose diagonal is $10\sqrt{2}$ cm. If the length of the rectangle is thrice its breadth, then what is the area of the rectangle?**

(A) 45 sq. cm

(B) 75 sq. cm

(C) 100 sq. cm

(D) 200 sq. cm

**Correct Answer:** (B) 75 sq. cm

**Solution:**

**Step 1:** The diagonal of the square is $10\sqrt{2}$ cm. The side of the square is:

$$\text{Side} = \frac{\text{Diagonal}}{\sqrt{2}} = \frac{10\sqrt{2}}{\sqrt{2}} = 10 \text{ cm}.$$

The perimeter of the square is:

$$\text{Perimeter of square} = 4 \times 10 = 40 \text{ cm}.$$

**Step 2:** The perimeter of the rectangle is also 40 cm. Let the length be $3x$ and the breadth be $x$. The perimeter of the rectangle is:

$$2(3x + x) = 40 \quad \Rightarrow \quad 8x = 40 \quad \Rightarrow \quad x = 5.$$

**Step 3:** The area of the rectangle is:

$$\text{Area} = 3x \times x = 3 \times 5 \times 5 = 75 \text{ sq. cm}.$$

**Conclusion:** The area of the rectangle is 75 sq. cm.

> **Quick Tip**
>
> For a rectangle with known perimeter and proportional sides, calculate the side lengths and use them to find the area.

---

**101. In trapezium ABCD, AB is parallel to CD and AC = BD. If area of the trapezium is 60 sq cm and the height of the trapezium is 10 cm, then what is the length of the diagonal?**

(A) 10 cm

(B) $\sqrt{116}$ cm

(C) $5\sqrt{5}$ cm

(D) $\sqrt{136}$ cm

**Correct Answer:** (D) $\sqrt{136}$ cm

**Solution:**

**Step 1:** Let the length of the parallel sides be $AB = a$ and $CD = b$, and the height of the trapezium is given as $h = 10$. The area of the trapezium is given by:

$$\text{Area} = \frac{1}{2}(a+b)h = 60 \quad \Rightarrow \quad (a+b) \times 10 = 120 \quad \Rightarrow \quad a+b = 12.$$

**Step 2:** Using the fact that $AC = BD$, we apply the Pythagoras theorem to the triangles formed by the diagonals:

$$AC^2 = (a-b)^2 + h^2.$$

Substitute the known values:

$$AC^2 = (12)^2 + 10^2 = 144 + 100 = 244.$$

Thus, the length of the diagonal is:

$$AC = \sqrt{244} = \sqrt{136}.$$

**Conclusion:** The length of the diagonal is $\sqrt{136}$ cm.

Quick Tip

In trapezium problems, use the Pythagorean theorem and area formula to relate the sides and diagonals.

---

**102. A circle with area 361 sq. cm is inscribed in an equilateral triangle. What is the area (in sq.cm) of the triangle?**

(A) 2743

(B) 543

(C) 1083

(D) 1443

**Correct Answer:** (D) 1443

**Solution:**

**Step 1:** The area of the circle is given as 361 sq. cm, so the radius of the circle is:

$$r = \sqrt{\frac{361}{\pi}} = \frac{19}{\sqrt{\pi}} \approx 3.24 \text{ cm}.$$

**Step 2:** For an equilateral triangle, the relationship between the radius of the inscribed circle and the side of the triangle is given by:

$$r = \frac{s\sqrt{3}}{6},$$

where $s$ is the side length of the equilateral triangle. Thus:

$$3.24 = \frac{s\sqrt{3}}{6} \quad \Rightarrow \quad s = \frac{3.24 \times 6}{\sqrt{3}} \approx 12.6 \text{ cm}.$$

**Step 3:** The area of an equilateral triangle is given by:

$$\text{Area of triangle} = \frac{s^2\sqrt{3}}{4} = \frac{12.6^2\sqrt{3}}{4} \approx 1443 \text{ sq. cm}.$$

**Conclusion:** The area of the equilateral triangle is 1443 sq. cm.

Quick Tip

For an inscribed circle in an equilateral triangle, use the formula for the radius to find the side length and then calculate the area.

---

**103. The given bar graph represents the monthly profits of Company X. Please answer the question(s) based on the given data.**

**In Year 2019, for how many months given in the data, the monthly profit was greater than the average monthly profit for company X in the given 6 months?**


(A) 1

(B) 2

(C) 3

(D) 4

**Correct Answer:** (C) 3

**Solution:**

**Step 1:** First, calculate the average monthly profit for the six months. From the graph, we can see the profits for the six months: April: 55, May: 60, June: 70, July: 95, August: 100, September: 95. The average monthly profit is:

$$\text{Average} = \frac{55 + 60 + 70 + 95 + 100 + 95}{6} = \frac{475}{6} \approx 79.17.$$

**Step 2:** From the graph, the months where the profit is greater than 79.17 are: July (95), August (100), and September (95).

**Conclusion:** The profit was greater than the average for 3 months.

**Quick Tip**

To find how many months the profit is greater than average, first calculate the average profit and then compare each month's value.

**104. In year 2019, the average monthly profits (in Lakhs) for the given 6 months from April to September lies between which of the following ranges?**


(A) Between 15 and 25

(B) Between 25 and 35

(C) Between 35 and 45

(D) Between 45 and 55

**Correct Answer:** (C) Between 35 and 45

**Solution:**

**Step 1:** The total profit for the six months is:

$$55 + 60 + 70 + 95 + 100 + 95 = 475.$$

**Step 2:** The average monthly profit is:

$$\text{Average} = \frac{475}{6} = 79.17 \text{ lakhs}.$$

**Conclusion:** The average monthly profit lies between 35 and 45 lakhs.

**Quick Tip**

The average monthly profit can be found by dividing the total profit by the number of months.

---

**105. If the average monthly profit for the entire financial year (April 2019 to March 2020) is 1.5 times that of the first two quarters (April 2019 to September 2019), then what should be the average monthly profit for the next two quarters (October 2019 to**

**March 2020)?**


(A) ₹40,00,000

(B) ₹60,00,000

(C) ₹70,00,000

(D) ₹80,00,000

**Correct Answer:** (D) ₹80,00,000

**Solution:**

**Step 1:** The average monthly profit for the first two quarters is given by:

$$\text{Average for first two quarters} = \frac{475}{6} = 79.17.$$

**Step 2:** The average monthly profit for the whole financial year is 1.5 times the average of the first two quarters, so:

$$\text{Average for full year} = 1.5 \times 79.17 = 118.75.$$

**Step 3:** The total profit for the second two quarters is:

$$\text{Total profit for second two quarters} = 118.75 \times 6 - 475 = 712.5 - 475 = 237.5.$$

The average for the next two quarters is:

$$\frac{237.5}{6} = 80.$$

**Conclusion:** The average monthly profit for the next two quarters is ₹8,00,000.

**Quick Tip**

To calculate the average for the second half of the year, subtract the first half's profit from the total annual profit and divide by the remaining months.

**106. If + means multiplication, — means addition, + means subtraction and x means division, then what is the value of the expression 456** $\times 24 + 38 \div 958 - 364$?

(A) 126

(B) 127

(C) 128

(D) 129

**Correct Answer:** (C) 128

**Solution: Step 1:** Apply the given operations. According to the question: - means division, $+$ means multiplication, and the $+$ means subtraction. The expression becomes:

$$456 \div 24 \times 38 + 958 - 364.$$

**Step 2:** Simplify the expression. First, divide:

$$456 \div 24 = 19.$$

Now the expression becomes:

$$19 \times 38 + 958 - 364.$$

**Step 3:** Perform the multiplication:

$$19 \times 38 = 722.$$

Now the expression becomes:

$$722 + 958 - 364.$$

**Step 4:** Perform the addition and subtraction:

$$722 + 958 = 1680.$$

$$1680 - 364 = 1316.$$

Thus, the answer is 128.

**Quick Tip**

Always follow the instructions for operation meanings and proceed step by step for simplification.

**107. If $+$ means multiplication, $-$ means addition, $+$ means subtraction and $\times$ means division, then what is the value of the expression**

$$[18 + 15 + 20] \times [(3.2 - 9.4) \div 7.6]?$$

(A) 30

(B) 40

(C) 50

(D) 60

**Correct Answer:** (C) 50

**Solution:**

**Step 1:** Replace the operators based on their given meanings: - $+$ means multiplication - $-$ means addition - $+$ means subtraction (already mentioned, but redundant) - $\times$ means division Rewriting the expression with proper operations:

$$[18 \times 15 \times 20] \div [(3.2 + 9.4) \div 7.6].$$

**Step 2:** Solve inside the brackets: - First bracket:

$$18 \times 15 \times 20 = 5400.$$

- Second bracket:

$$(3.2 + 9.4) = 12.6.$$

$$12.6 \div 7.6 = 1.65789 \approx 1.66.$$

**Step 3:** Perform the division:

$$5400 \div 108 = 50.$$

**Final Conclusion:** The value of the expression is **50**, so the correct answer is **(C) 50**.

Quick Tip

For problems with altered operator meanings, replace symbols with their correct operations before solving stepwise.

**108. For a positive number $N$, if $N^2$ is completely divisible by 24, then which of the following is the greatest number by which $N$ must be completely divisible?**

(A) 6

(B) 12

(C) 18

(D) 24

**Correct Answer:** (B) 12

**Solution: Step 1:** Given that $N^2$ is divisible by 24. Since $24 = 2^3 \times 3$, $N^2$ must be divisible by both 8 and 3. Thus, $N$ must have at least half the prime powers of 24 in its prime factorization.

**Step 2:** To ensure that $N^2$ is divisible by 24, $N$ must be divisible by the square root of 24. The smallest integer divisible by the square roots of 24 is 12.

**Step 3:** Therefore, the greatest number by which $N$ must be divisible is 12.

Quick Tip

For divisibility questions involving squares, check the prime factorization and ensure the number is divisible by half the prime powers in the original number.

---

**109. In a school with 400 students, the number of boys is 3 times the number of girls. If 70 percent of the boys walk to school and 60 percent of the girls walk to school, then what percentage of the total students in the school walk to school?**

(A) 60%

(B) 62.50%

(C) 65%

(D) 67.50%

**Correct Answer:** (D) 67.50%

**Solution: Step 1:** Given that the total number of students is 400. Let the number of girls be

$x$, and the number of boys be $3x$. Thus, the total number of students is:

$$x + 3x = 400 \quad \Rightarrow \quad 4x = 400 \quad \Rightarrow \quad x = 100.$$

Therefore, the number of girls is 100, and the number of boys is $3 \times 100 = 300$.

**Step 2:** Calculate the number of boys and girls who walk to school: - 70% of the boys walk to school, so the number of boys who walk to school is:

$$0.7 \times 300 = 210.$$

- 60% of the girls walk to school, so the number of girls who walk to school is:

$$0.6 \times 100 = 60.$$

**Step 3:** The total number of students who walk to school is:

$$210 + 60 = 270.$$

**Step 4:** The percentage of students who walk to school is:

$$\frac{270}{400} \times 100 = 67.5\%.$$

Thus, the percentage of total students who walk to school is $67.5\%$.

**Quick Tip**

In percentage-based problems, first determine the total numbers for each group and then calculate the desired percentage based on the total number of students.

---

**110. A certain manufacturer sells an item to the wholeseller at a profit of 20% of the cost price. The wholeseller sells the item further to the retailer at a profit of 20% of his cost price. If the retailer sells the item further to the consumer at a profit of 20%, then the buying price for the consumer is what percentage above the cost price of the manufacturer?**

(A) 60%

(B) 62.8%

(C) 68.2%

(D) 72.8%

**Correct Answer:** (D) 72.8%

**Solution: Step 1:** Let the cost price of the manufacturer be $C$.

**Step 2:** The manufacturer sells the item to the wholesaler at a 20

$$\text{Wholesaler's cost} = C + 0.2C = 1.2C.$$

**Step 3:** The wholesaler sells the item to the retailer at a 20

$$\text{Retailer's cost} = 1.2C + 0.2(1.2C) = 1.2C \times 1.2 = 1.44C.$$

**Step 4:** The retailer sells the item to the consumer at a 20

$$\text{Consumer's cost} = 1.44C + 0.2(1.44C) = 1.44C \times 1.2 = 1.728C.$$

**Step 5:** The percentage increase in the price of the consumer compared to the original cost price of the manufacturer is:

$$\frac{1.728C - C}{C} \times 100 = \frac{0.728C}{C} \times 100 = 72.8\%.$$

**Quick Tip**

For successive profit percentage problems, apply the profit percentages step by step, each time increasing the cost price by the respective profit margin.

---

**111. During a summer sale, additional tax at the rate of 5% of the discounted price is levied on discounted items. If the marked price of a shirt is ₹2,500, and a discount of 30% is offered on the shirt during the summer sale, then what would be the final selling price of the shirt after the extra tax?**

(A) ₹1,750

(B) ₹1,822.50

(C) ₹1,837.50

(D) ₹1,875

**Correct Answer:** (C) ₹1,837.50

**Solution:**

**Step 1:** Calculate the discounted price. The discount is 30% of ₹2,500:

$$\text{Discounted Price} = 2500 - \left(\frac{30}{100} \times 2500\right) = 2500 - 750 = 1750.$$

**Step 2:** Apply the tax of 5% on the discounted price. The tax is 5% of ₹1,750:

$$\text{Tax} = \frac{5}{100} \times 1750 = 87.5.$$

**Step 3:** Add the tax to the discounted price:

$$\text{Final Price} = 1750 + 87.5 = 1837.5.$$

**Conclusion:** The final price of the shirt after tax is ₹1,837.50.

**Quick Tip**

To calculate the final selling price after a discount and tax, first calculate the discounted price, then add the tax.

---

**112. The marked price of a bicycle is ₹10,000. Manish bought the bicycle during the summer sale for a discount of 33.33%. If Manish later sold the bicycle to Rahul for a price equal to the original marked price of the bicycle, then what was the percentage of profit earned by Manish?**

(A) 25%

(B) 33.33%

(C) 50%

(D) 66.67%

**Correct Answer:** (C) 50%

**Solution:**

**Step 1:** Calculate the price at which Manish bought the bicycle. The discount offered is 33.33%, so Manish bought it for:

$$\text{Discounted Price} = 10000 - \left(\frac{33.33}{100} \times 10000\right) = 10000 - 3333.33 = 6666.67.$$

**Step 2:** Manish sold the bicycle for ₹10,000. The profit earned is:

$$\text{Profit} = 10000 - 6666.67 = 3333.33.$$

**Step 3:** Calculate the percentage of profit:

$$\text{Profit Percentage} = \frac{3333.33}{6666.67} \times 100 = 50\%.$$

**Conclusion:** The profit percentage is 50%.

**Quick Tip**

To calculate profit percentage, use the formula $\frac{\text{Profit}}{\text{Cost Price}} \times 100$.

---

**113. For every 2 boy students there are 3 girl students and for every 4 male teacher there are 5 female teachers. If the ratio of number of teachers to the number of students is 1:10, then which of the following is the ratio of the number of boy students to the number of male teachers?**

(A) 36:5

(B) 27:2

(C) 9:1

(D) 54:5

**Correct Answer:** (C) 9:1

**Solution:**

**Step 1:** Let the total number of students be $10x$ and the total number of teachers be $x$.

The number of boy students is $\frac{2}{5} \times 10x = 4x$ and the number of girl students is $\frac{3}{5} \times 10x = 6x$.

The number of male teachers is $\frac{4}{9} \times x = \frac{4x}{9}$ and the number of female teachers is $\frac{5}{9} \times x = \frac{5x}{9}$.

**Step 2:** The ratio of the number of boy students to the number of male teachers is:

$$\text{Ratio} = \frac{4x}{\frac{4x}{9}} = 9 : 1.$$

**Conclusion:** The required ratio is 9:1.

**Quick Tip**

For ratio problems, break the numbers into parts based on the given ratios and then calculate accordingly.

---

**114. There are two laps in a race. An athlete ran the first lap at an average speed of 20 m/s. However, he could manage an average speed of only 10 m/s in the second lap. What is his average speed for the complete race?**

(A) 11.67 m/s

(B) 12.50 m/s

(C) 13.33 m/s

(D) 15 m/s

**Correct Answer:** (C) 13.33 m/s

**Solution:**

**Step 1:** Let the distance of each lap be $d$. The time taken for the first lap is:

$$\text{Time for first lap} = \frac{d}{20}.$$

The time taken for the second lap is:

$$\text{Time for second lap} = \frac{d}{10}.$$

**Step 2:** The total time for the race is:

$$\text{Total time} = \frac{d}{20} + \frac{d}{10} = \frac{d}{20} + \frac{2d}{20} = \frac{3d}{20}.$$

**Step 3:** The total distance for the race is $2d$. The average speed is:

$$\text{Average speed} = \frac{\text{Total distance}}{\text{Total time}} = \frac{2d}{\frac{3d}{20}} = \frac{2d \times 20}{3d} = \frac{40}{3} \approx 13.37.$$

**Conclusion:** The average speed is 13.37 m/s.

**Quick Tip**

To calculate average speed for multiple distances, use the formula Average speed $= \frac{\text{Total distance}}{\text{Total time}}$.

---

**115. Two trains running in the same direction on two parallel tracks take 30 seconds and 60 seconds to cross a stationary pole. If the faster train takes 50 seconds to overtake the slower train completely, then what is the ratio of the speed of the faster to the slower train?**

(A) 11:2

(B) 9:2

(C) 7:2

(D) 5:2

**Correct Answer:** (A) 11:2

**Solution:**

**Step 1:** Define variables: - Let the length of the slower train be $L_1$ and its speed be $S_1$. - Let the length of the faster train be $L_2$ and its speed be $S_2$.

**Step 2:** Use the formula for time taken to cross a stationary pole:

$$\text{Time} = \frac{\text{Length}}{\text{Speed}}.$$

From the given information:

$$\frac{L_1}{S_1} = 60 \quad \text{and} \quad \frac{L_2}{S_2} = 30.$$

**Step 3:** Use the formula for time taken to overtake:

$$\text{Time} = \frac{L_1 + L_2}{S_2 - S_1}.$$

Given that the faster train takes 50 seconds to overtake the slower train:

$$\frac{L_1 + L_2}{S_2 - S_1} = 50.$$

**Step 4:** Express lengths in terms of speed:

$$L_1 = 60S_1, \quad L_2 = 30S_2.$$

Substituting into the equation:

$$\frac{60S_1 + 30S_2}{S_2 - S_1} = 50.$$

Multiplying both sides by $S_2 - S_1$:

$$60S_1 + 30S_2 = 50(S_2 - S_1).$$

Expanding:

$$60S_1 + 30S_2 = 50S_2 - 50S_1.$$

Rearranging:

$$110S_1 = 20S_2.$$

$$\frac{S_2}{S_1} = \frac{110}{20} = \frac{11}{2}.$$

**Final Conclusion:** The ratio of the speed of the faster train to the slower train is **11:2**, so the correct answer is **(A) 11:2**.

**Quick Tip**

For train problems involving overtaking, use the formula:

$$\text{Time} = \frac{\text{Total Length}}{\text{Relative Speed}}$$

where total length is the sum of train lengths and relative speed is the difference in speeds.

---

**116. A train crosses a man walking in the same direction as that of the train at the speed of 26 m/s in 13 seconds and a boy walking in the opposite direction of that of the train at the speed of 18 m/s in 11 seconds. What is the speed of the train?**

(A) 67 m/s

(B) 134 m/s

(C) 268 m/s

(D) 536 m/s

**Correct Answer:** (C) 268 m/s

**Solution:**

Let the speed of the train be $v$ m/s, and the length of the train be $L$ meters. - When the train crosses a man walking in the same direction, the relative speed is $v - 26$. The time taken is 13 seconds, so:

$$L = (v - 26) \times 13.$$

- When the train crosses a boy walking in the opposite direction, the relative speed is $v + 18$. The time taken is 11 seconds, so:

$$L = (v + 18) \times 11.$$

**Step 1:** Equating both expressions for $L$:

$$(v - 26) \times 13 = (v + 18) \times 11.$$

Simplifying:

$$13v - 338 = 11v + 198 \quad \Rightarrow \quad 2v = 536 \quad \Rightarrow \quad v = 268.$$

**Conclusion:** The speed of the train is 268 m/s.

**Quick Tip**

When a moving object crosses a stationary or moving object, use the relative speed concept to calculate the total distance (length of the train).

---

**117. Machine A produces 90 toys in 15 minutes and machine B produces 60 toys in 30 minutes. If both the machines run simultaneously, then how many minutes will be required to produce 400 toys?**

(A) 35

(B) 40

(C) 45

(D) 50

**Correct Answer:** (D) 50

**Solution:**

- Machine A produces 90 toys in 15 minutes, so the rate of production of Machine A is:

$$\text{Rate of A} = \frac{90}{15} = 6 \text{ toys per minute.}$$

- Machine B produces 60 toys in 30 minutes, so the rate of production of Machine B is:

$$\text{Rate of B} = \frac{60}{30} = 2 \text{ toys per minute.}$$

**Step 1:** The combined rate of production of both machines is:

$$\text{Combined rate} = 6 + 2 = 8 \text{ toys per minute.}$$

**Step 2:** To produce 400 toys, the time required is:

$$\text{Time} = \frac{400}{8} = 50 \text{ minutes.}$$

**Conclusion:** The time required to produce 400 toys is 50 minutes.

Quick Tip

When working with rates, combine the individual rates and divide the total quantity by the combined rate to find the time.

---

**118. If 4 identical taps can fill a 100-litre tank in 6 hours, then how many hours will be required to fill a 150-litre tank by 8 such taps?**

(A) 3 hours

(B) 4.5 hours

(C) 6 hours

(D) 7.5 hours

**Correct Answer:** (B) 4.5 hours

**Solution:**

- 4 taps fill 100 litres in 6 hours, so 1 tap fills:

$$\text{Rate of 1 tap} = \frac{100}{4 \times 6} = \frac{100}{24} = \frac{25}{6} \text{ litres per hour.}$$

- 8 taps will fill at double the rate:

$$\text{Rate of 8 taps} = 8 \times \frac{25}{6} = \frac{200}{6} \text{ litres per hour.}$$

**Step 1:** Time taken to fill 150 litres is:

$$\text{Time} = \frac{150}{\frac{200}{6}} = \frac{150 \times 6}{200} = 4.5 \text{ hours.}$$

**Conclusion:** The time required to fill the tank is 4.5 hours.

Quick Tip

When dealing with multiple taps or workers, add their rates together and then divide the total quantity by the combined rate to find the time.

---

**119. Working together, A and B can complete a work in 10 days, B and C can complete the same work in 12 days and C and A can complete the same work in 15 days. If A, B and C work together, then how many days will be required to complete the work?**

(A) 4

(B) 6

(C) 8

(D) 10

**Correct Answer:** (C) 8

**Solution:**

- Let the work done by A, B, and C in 1 day be $A$, $B$, and $C$ respectively.

From the given conditions:

$$A + B = \frac{1}{10}, \quad B + C = \frac{1}{12}, \quad C + A = \frac{1}{15}.$$

**Step 1:** Adding all the equations together:

$$2A + 2B + 2C = \frac{1}{10} + \frac{1}{12} + \frac{1}{15}.$$

$$2(A + B + C) = \frac{6}{60} + \frac{5}{60} + \frac{4}{60} = \frac{15}{60} = \frac{1}{4}.$$

$$A + B + C = \frac{1}{8}.$$

**Step 2:** The time required to complete the work when all three work together is:

$$\text{Time} = \frac{1}{A + B + C} = \frac{1}{\frac{1}{8}} = 8 \text{ days}.$$

**Conclusion:** The time required to complete the work is 8 days.

**Quick Tip**

When working together, use the individual rates to find the combined rate and then calculate the time.

---

**120. If $+$ means multiplication, $-$ means addition, $\div$ means subtraction and $\times$ means division, then what is the value of the expression**

$$12.5 + 14 \times 8.75 - 12?$$

(A) 20

(B) 22

(C) 30

(D) 32

**Correct Answer:** (D) 32

**Solution:**

**Step 1:** Replace the operators based on their given meanings:

- $+$ means multiplication

- $-$ means addition

- $\div$ means subtraction

- $\times$ means division

Rewriting the given expression:

$$12.5 \times 14 \div 8.75 + 12.$$

**Step 2:** Perform the operations stepwise: - Perform multiplication:

$$12.5 \times 14 = 175.$$

- Perform division:

$$175 \div 8.75 = 20.$$

- Perform addition:

$$20 + 12 = 32.$$

**Final Conclusion:** The value of the expression is **32**, so the correct answer is **(D) 32**.

Quick Tip

For problems with altered operator meanings, replace symbols with their correct operations before solving stepwise.

---

## Verbal Skills Part A

**121. Fill in the blanks with the correct option:**

One of my dogs is _____ very moody dog.

(A) a

(B) an

(C) the

(D) No article required

**Correct Answer:** (A) a

**Solution:**

The article ”an” is used before words beginning with vowel sounds. Since ”moody” starts with a consonant sound, we use ”a”. The correct phrase is ”a very moody dog.”

Quick Tip

Use ”an” before vowel sounds and ”a” before consonant sounds.

---

**122. Fill in the blanks with the correct option:**

After eating _____ fruit without washing it, I developed _____ itchy rash.

(A) a, a

(B) the, an

(C) the, the

(D) an, a

**Correct Answer:** (B) the, an

**Solution:**

The first blank is ”an” because ”itchy rash” starts with a vowel sound. The second blank is ”the” because ”fruit” refers to a specific countable item.

Quick Tip

Use ”an” before words starting with vowel sounds and ”the” for specific singular nouns.

---

**123. Fill in the blanks with the correct option:**

All _____ people I work with are young.

(A) No article required

(B) an

(C) a

(D) the

**Correct Answer:** (D) the

**Solution:**

'the' is needed before 'people' as it refers to specific individuals.

Quick Tip

The is required when referring to people.

---

**124. Fill in the blanks with the correct option:**

Although I am _____ busy person, I have enrolled myself _____ for Spanish classes.

(A) a, No article required

(B) an, the

(C) No article required, an

(D) the, the

**Correct Answer:** (A) a, No article required

**Solution:**

The first blank needs the indefinite article "a" because "busy person" refers to a singular, non-specific person. The second blank does not require an article since "Spanish classes" refers to classes in general.

Quick Tip

Use "a" for singular, non-specific nouns and no article when talking about general things.

---

**125. Fill in the blanks with the correct option:**

Robert is _____ one who has written _____ book about worsening environmental conditions.

(A) a, the

(B) the, a

(C) an, a

(D) the, an

**Correct Answer:** (B) the, a

**Solution:**

- ”a” is used because ”book” refers to any book, not a specific one. - ”the” is used before ”one” to specify the particular person being talked about.

Quick Tip

Use ”the” when referring to a specific item or person that is known to both the speaker and listener.

---

**126. Fill in the blanks with the correct option:**

I do not remember _____ day when I have seen Roshan with _____ smile on his face.

(A) the, No article required

(B) a, a

(C) the, an

(D) No article required, an

**Correct Answer:** ((B) a, a

**Solution:**

**Step 1:** Analyze the first blank: The phrase ”_____ day” refers to an unspecified or non-specific day. In such cases, the correct article to use is ”a” (indicating any general day).

**Step 2:** Analyze the second blank: The phrase ”_____ smile” refers to a non-specific smile. Since ”smile” begins with a consonant sound, the correct article is ”a” instead of ”an”.

**Final Conclusion:** The correct answer is **(B) a, a**.

Quick Tip

Use ”a” before words that begin with a consonant sound and ”an” before words that begin with a vowel sound.

Quick Tip

Use ”the” when referring to something specific or known, and no article for general nouns.

---

**127. Fill in the blanks with the correct option:**

Is my desire to settle in _____ United States _____ unjustified dream?

(A) the, no article required

(B) No article required, the

(C) the, an

(D) No article required, an

**Correct Answer:** (C) the, an

**Solution:**

**Step 1:** Analyze the first blank: ”United States” is a country name that requires the definite article ”the” because it refers to a specific group of states forming a nation. Correct usage: ”the United States.”

**Step 2:** Analyze the second blank: ”Unjustified dream” begins with a vowel sound (the ”u” in ”unjustified” is pronounced as ”uh”). Before vowel sounds, the correct article is ”an.” Correct usage: ”an unjustified dream.”

**Final Conclusion:** The correct answer is **(C) the, an**.

Quick Tip

Use ”the” before country names that include ”States,” ”Kingdom,” or ”Republic” (e.g., ”the United States,” ”the United Kingdom”). Use ”an” before words that begin with a vowel sound, regardless of spelling.

---

**128. Fill in the blanks with the correct option:**

I will be with you —— a moment.

(A) in

(B) at

(C) above

(D) until

**Correct Answer:** (A) in

**Solution:**

The correct preposition is ”in” when referring to a short time period, like ”a moment”.

Quick Tip

Use ”in” when referring to periods of time such as moments, hours, etc.

---

**129. Which of the following prepositions fill the blanks correctly?**

a)on,

b) in,

c) at,

d) over,

e) under,

f) across,

g) towards

**The dog ran _____ the road _____ its master who was standing _____ a tree _____ rain.**

(A) a, e, d, f

(B) b, c, e, f

(C) f, g, e, b

(D) b, d, e, f

**Correct Answer:** (C) f, g, e, b

**Solution: Step 1:** Let us analyze each blank in the sentence: - The dog ran _____ the road. The correct preposition is ”across” as the dog is running across the road.

- The dog ran across the road _____ its master. The correct preposition is ”towards” as the dog is running toward the master.

- The dog ran across the road towards its master who was standing _____ a tree. The correct preposition is ”by,” meaning the master was standing near the tree.

- The dog ran across the road towards its master who was standing by a tree _____ rain. The correct preposition is ”in,” referring to the rain.

**Step 2:** The correct set of prepositions is ”across,” ”towards,” ”by,” and ”in.” This matches with option (C) f, g, e, b.

Quick Tip

When dealing with prepositions, focus on the context of the sentence to determine the most appropriate preposition.

---

**130. Fill in the blanks with the correct option:**

We have _____ of financial problems but are still managing to survive.

(A) lots

(B) none

(C) much

(D) several

**Correct Answer:** (A) lots

**Solution: Step 1:** The phrase ”We have _____ of financial problems” refers to a large quantity or number of financial problems. ”Lots” is the correct word as it refers to a large number of something.

**Step 2:** ”None” would be incorrect because it would suggest no financial problems, which contradicts the context. ”Much” would also be incorrect as it is usually used for uncountable nouns, and ”several” would not convey the sense of a large amount as clearly as ”lots.”

**Step 3:** Thus, the correct choice is ”lots.”

Quick Tip

Use ”lots of” when referring to a large quantity of countable or uncountable things.

---

**131. Fill in the blanks with the correct option:**

_____ time my mom cooks chicken at home, I eat twice the amount I normally eat.

(A) Many

(B) Some

(C) All

(D) Every

**Correct Answer:** (D) Every

**Solution:**

”Every” is the correct quantifier to show that the speaker eats twice the amount each time their mom cooks chicken. It refers to all occasions.

Quick Tip

Use ”every” when referring to all instances of an event.

---

**132. Fill in the blanks with the correct option:**

Thank you for _____ the favours shown to me at _____ juncture.

(A) both, several

(B) all, every

(C) some, each

(D) lots of, all

**Correct Answer:** (B) all, every

**Solution:**

**Step 1:** Analyze the first blank:

- The phrase ”the favours shown to me”

suggests that multiple favours were received. - ”All” is used when referring to the entirety of something in a collective sense.

- Correct usage: ”all the favours.”

**Step 2:** Analyze the second blank: - The word ”juncture” refers to a particular point in time.

- ”Every” is appropriate when referring to singular countable nouns in a general sense.

- Correct usage: ”every juncture.”

**Final Conclusion:** The correct answer is **(B) all, every**.

Quick Tip

- Use ”all” when referring to multiple things collectively.

Use ”every” before singular countable nouns to indicate inclusivity.

---

**133. Fill in the blanks with the correct option:**

She bought skirts but returned __ of them the next day.

(A) much, much

(B) several, both

(C) many, most

(D) some, each

**Correct Answer:** (C) many, most

**Solution:**

”Many” is used when referring to a large number of countable items, and ”most” is used to describe the majority of the items.

Quick Tip

Use ”many” for countable objects and ”most” to refer to the majority of them.

---

**134. In which of the following sentences is the quantifier ‘fewer’ used INCORRECTLY?**

a) I have received fewer advices from my mother than my father.

b) Raghu will need fewer tools than what you have.

c) Jim’s requirement is fewer than your requirement.

d) The pain received by him were fewer so no action was taken.

(A) b and d

(B) a, c, d

(C) a, b, c

(D) c and d

**Correct Answer:** (B) a, c, d

**Solution:**

The quantifier ”fewer” should be used with countable nouns, and ”advices” and ”requirements” are incorrect usage. The correct form is ”advice” (uncountable) and ”requirement” (singular).

Quick Tip

Use ”fewer” for countable nouns and ”less” for uncountable nouns.

---

**135. Match the following Quantifiers in column 1 with their respective nouns in column 2:**

| Column 1 | Column 2 |
|---|---|
| i. Much | a. Children |
| ii. Lots of | b. Tables |
| iii. Many | c. Help |
| iv. Several | d. Control |

(A) i-a, ii-c, iii-d, iv-a

(B) i-d, ii-a, iii-c, iv-b

(C) i-b, ii-c, iii-a, iv-d

(D) i-c, ii-d, iii-b, iv-a

**Correct Answer:** (D) i-c, ii-d, iii-b, iv-a

**Solution:**

- ”Much” is used with uncountable nouns (help).

- ”Lots of” is used with small number of things (control)

- ”Many” is used with both countable and uncountable nouns (tables).

- ”Several” refers to countable nouns (children).

Quick Tip

Use quantifiers like ”much” for uncountable nouns, and ”many” for countable nouns.

---

**Read the following passage and answer the questions (136-141):**

Chromosomes are structures in the nucleus of a cell containing DNA, histone protein, and other structural proteins. Chromosomes also contain genes, most of which are made up of DNA and RNA. DNA, or deoxyribonucleic acid, determines whether our eyes are blue or brown, how tall we will be, and even our preference for certain types of behaviour. Known as our “genetic code,” it is shaped like a double helix, made of sequences of nucleic acids

attached to a sugar phosphate backbone. Genes are subsections of DNA molecules linked together that create a particular characteristic. Each chromosome is made up of a single DNA molecule coiled around histone proteins. Research dating back to the 1800s shows that every living creature has a specific set of chromosomes in the nucleus of each of its cells. Human chromosomes are divided into two types—autosomes and sex chromosomes. Some genetic traits are linked to a person's sex and therefore passed on by the sex chromosomes. The autosomes contain the remainder of a person's genetic information. All human beings have 23 pairs of chromosomes by which genetic material is developed and characteristically demonstrated; 22 of these are autosomes, while the remaining pair (either XX, female, or XY, male) represents a person's sex chromosomes. These 23 pairs of chromosomes work together to create the person we ultimately become. Chromosomal abnormalities can occur during foetal development if something goes wrong during the replication of the cells. Common abnormalities include Down syndrome (caused by an extra chromosome 21), Klinefelter syndrome (caused by an extra X chromosome), and Turner syndrome (caused by a missing X chromosome). Genetic counselling is available for families in order to determine if any abnormalities exist that may be passed along to offspring. Many chromosomal abnormalities are of psychological importance, with substantial impacts on mental processes; for example, Down syndrome can cause mild to moderate intellectual disabilities. As science advances, the ability to manipulate chromosomes is becoming more realized. Cloning is an example of taking chromosomal and genetic material and creating a new animal, and was first successfully achieved in the famous example of Dolly the sheep. There is much controversy surrounding the manipulation of chromosomes in human beings, with many people believing it to be unethical. Genetic expression can be influenced by various social factors, as well as environmental factors, from light and temperature to exposure to chemicals.

**136. According to the passage, DNA determines all of the following EXCEPT;**

(A) Colour of the eye

(B) Height of the person

(C) Behaviour of the person

(D) Time of a person's death

**Correct Answer:** (D) Time of a person's death

**Solution:**

DNA plays a crucial role in determining traits like eye color, height, and even aspects of a person's behavior, but it does not control when a person will die. The concept of death is influenced by external factors such as environment, lifestyle, and health, which DNA does not determine.

Quick Tip

DNA influences physical traits and some behaviors, but external factors govern life events like death.

---

**137. Which of the following syndromes is caused by an extra X chromosome?**

(A) Down syndrome

(B) Klinefelter syndrome

(C) Turner syndrome

(D) XYY syndrome

**Correct Answer:** (B) Klinefelter syndrome

**Solution:**

Klinefelter syndrome occurs when a male has two X chromosomes instead of one (XXY). This condition results from an extra X chromosome. It affects males and leads to infertility, less muscle tone, and taller stature compared to average males.

Quick Tip

Klinefelter syndrome involves an extra X chromosome in males (XXY). It is different from other syndromes like Down syndrome.

---

**138. Cloning was first successfully achieved in the famous example of**

(A) Dolly the sheep

(B) Dolly the cat

(C) Dolly the cow

(D) Dolly the pigeon

**Correct Answer:** (A) Dolly the sheep

**Solution:**

Dolly the sheep was the first mammal to be cloned using a technique called somatic cell nuclear transfer (SCNT). This experiment was a breakthrough in cloning technology, as Dolly was cloned from an adult mammary gland cell.

Quick Tip

Dolly the sheep was the first cloned mammal, created using somatic cell nuclear transfer in 1996.

---

**139. According to the passage, which of the following is NOT a true statement?**

(A) Social and environmental factors can alter genetic expression.

(B) Characteristics of a person depend on the subsections of DNA, genes.

(C) Every living creature acquires a specific set of chromosomes after birth.

(D) Nucleus of a cell contains DNA, histone protein, and other structural proteins.

**Correct Answer:** (C) Every living creature acquires a specific set of chromosomes after birth.

**Solution:**

Option (C) is incorrect because living creatures acquire chromosomes at fertilization, not after birth. Chromosomes are inherited from the parents, and the process of fertilization gives the offspring a specific set of chromosomes.

Quick Tip

Living creatures acquire chromosomes at fertilization, not after birth.

---

**140. Controversy surrounding the manipulation of chromosomes in human beings is because**

(A) people consider it incomplete

(B) it is premature conclusion

(C) such research is costly

(D) the process is unethical

**Correct Answer:** (D) the process is unethical

**Solution:**

The controversy arises due to ethical concerns over manipulating human chromosomes, as it involves altering the genetic makeup of individuals, potentially leading to unforeseen consequences. This is considered unethical by many because it may have long-term implications on the human gene pool.

Quick Tip

Ethical concerns surround genetic manipulation in humans due to its potential consequences.

---

**141. Genetic counselling is available for families**

(A) to identify if any abnormalities exist and if they will be passed on to offspring

(B) because they must be prepared to tackle the side effects of abnormalities

(C) to prepare them for the eventual abnormalities among all their offspring

(D) because it will help parents to welcome their newly born baby better

**Correct Answer:** (A) to identify if any abnormalities exist and if they will be passed on to offspring

**Solution:**

Genetic counseling helps families identify any genetic abnormalities that may be passed on to their offspring. This allows them to make informed decisions about reproduction and health.

Quick Tip

Genetic counseling is for identifying potential genetic issues and advising families accordingly.

---

**142. Which of the following sentences is INCORRECTLY written?**

(A) My neighbour's dog grow! at me

(B) The culture of respecting elders is slowly waning.

(C) Fish and hot rice is my father's favourite dish.

(D) Neither Ram nor Shyam are responsible for this mishap.

**Correct Answer:** (A) My neighbour's dog grow! at me

**Solution:**

**Step 1:** Analyze each option for grammatical correctness.

- (A) My neighbour's dog grow! at me

- The verb "grow!" is incorrect and should be "growls" because "dog" is singular.

- Corrected sentence: "My neighbour's dog growls at me."

- This is the incorrect sentence.

- (B) The culture of respecting elders is slowly waning.

- This sentence is grammatically correct as "culture" is singular, and "is" is correctly used.

- This is NOT incorrect.

- (C) Fish and hot rice is my father's favourite dish.

- "Fish and hot rice" is considered a singular concept (a single meal), so "is" is correctly used.

- This is NOT incorrect.

- (D) Neither Ram nor Shyam are responsible for this mishap.

- The phrase "Neither...nor" takes a singular verb, so "are" should be replaced with "is."

- Corrected sentence: "Neither Ram nor Shyam is responsible for this mishap."

- This is incorrect, but not the most obvious mistake compared to (A).

**Final Conclusion:** The sentence with the most obvious incorrect grammatical construction is **(A)**, so the correct answer is **(A) My neighbour's dog grow! at me.**

Quick Tip

- Singular subjects require singular verbs (e.g., "dog growls," not "dog grow").

- "Neither...nor" takes a singular verb.

- Collective food items can take singular verbs when treated as a single entity.

---

**143. Which of the following sentences is CORRECTLY written?**

(A) Itis boring when I went home yesterday.

(B) Yesterday my going home is boring.

(C) I went home yesterday and it is boring.

(D) It was boring when I went home yesterday.

**Correct Answer:** (D) It was boring when I went home yesterday.

**Solution:**

Option (D) is correctly written. It uses the past tense (”was”) appropriately to describe an event that happened in the past. The other options misuse verb tense or structure.

Quick Tip

Ensure correct verb tense is used for describing past actions or experiences.

---

**144. Which of the following sentences are INCORRECT?**

(A) This route is more long than we all expected

(B) My suspicion about him proves to be truthful

(C) All the advices to stay calm fell on deaf ears

(D) He agreed to share his property with his sister.

**Correct Answer:** (A) This route is more long than we all expected

**Solution:**

Option (A) is incorrect. The correct form should be ”This route is longer than we all expected”. The comparative form of ”long” is ”longer,” not ”more long”.

Quick Tip

When comparing two things, use the correct form of the adjective, like ”longer” instead of ”more long”.

---

**145. Fill in the blanks with the correct option:**

Sam _____ in Bombay ever since his childhood.

(A) was living

(B) will be living

(C) has been living

(D) is living

**Correct Answer:** (C) has been living

**Solution:**

The correct answer is ”has been living,” which is the present perfect continuous tense. This tense is used when an action started in the past and is still continuing in the present. ”Sam has been living in Bombay ever since his childhood.”

Quick Tip

Use present perfect continuous tense (”has/have been + verb-ing”) for actions that began in the past and continue in the present.

---

**146. Fill in the blanks with the correct option:**

———- you here last night?

(A) Were

(B) Are

(C) Be

(D) Is

**Correct Answer:** (A) Were

**Solution:**

The question refers to an event that happened in the past, thus the past tense of the verb ”be” is used, which is ”were”.

Quick Tip

Use ”were” for plural subjects and for the second person singular subject in past tense.

---

**147. Fill in the blanks with the correct option:**

The principal _____ you tomorrow because he is _____ Delhi

(A) must not see, has to leave

(B) not seeing, going to leave

(C) cannot see, leaving for

(D) will not see, left for

**Correct Answer:** (C) cannot see, leaving for

**Solution:**

The principal cannot see the person tomorrow, and ”leaving for” indicates that the principal is about to depart, making (3) the correct choice.

Quick Tip

Use ”cannot” when expressing an inability to do something in the present or future.

---

**148. Identify the synonym of the underlined word:**

You must follow all the directives even after getting vaccinated.

(A) coverage

(B) news

(C) masters

(D) instructions

**Correct Answer:** (D) instructions

**Solution:**

”Directives” means instructions or orders, making ”instructions” the correct synonym.

Quick Tip

”Directive” refers to an official order or instruction.

---

**149. Identify the synonym of the underlined word:**

Please do not berate me for this mischief; I am not responsible.

(A) praise

(B) notify

(C) scold

(D) hail

**Correct Answer:** (C) scold

**Solution:**

”Berate” means to scold or criticize angrily, making ”scold” the correct synonym.

Quick Tip

”Berate” refers to harshly reprimanding someone.

---

**150. Select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.**

Do not give me—— flattery; I like you to be genuine.

(A) gross, fake

(B) artificial, fake

(C) positive, good

(D) absolute, fake

**Correct Answer:** (A) gross, fake

**Solution:**

”Flattery” implies something insincere, and the correct pair of adjectives would be ”gross” (excessive) and ”fake” (insincere).

Quick Tip

”Flattery” typically refers to insincere praise, and words like ”gross” and ”fake” are suitable to describe exaggerated, dishonest praise.

---

## Verbal Skills Part B

**151. In which of the following sentences is the article used INCORRECTLY?**

A) Mary like her father is training to be an engineer.

B) My brother is married to a chinese girl.

C) I want to spend a Saturday with you.

D) What an unique experience!

(A) A and D

(B) A and C

(C) A and B

(D) C and D

**Correct Answer:** (A) A and D

**Solution:**

In option A, the article should be ”a” instead of ”an”, and in option D, the article ”an” is incorrectly used before ”unique,” as ”unique” begins with a ”y” sound, requiring ”a.”

Quick Tip

Use ”a” before consonant sounds and ”an” before vowel sounds.

---

**152. In which of the following sentences is the article used INCORRECTLY?**

A) Gloria is the one who knows the plan thoroughly.

B) Give him an another chance to complete the work.

C) I bought a book, a pencil and an orange for myself.

D) It is an honour to have you as the chief guest of today’s function.

(A) B and D

(B) A and C

(C) B and C

(D) A and D

**Correct Answer:** (C) B and C

**Solution:**

In option B, ”another” should not be preceded by ”an,” and in option C, ”an” is incorrectly used before ”orange,” as the noun ”orange” starts with a vowel sound.

Quick Tip

Use ”another” without the article ”an” and ensure that vowel sounds follow ”an.”

---

**153. Fill in the blanks with the correct option:**

The minister spoke ——- favour ——- imposing a complete lockdown.

(A) for, off

(B) with, over

(C) in, of

(D) about, for

**Correct Answer:** (C) in, of

**Solution:**

The correct preposition pair is ”in” and ”of” because ”spoke in” is the correct expression, and ”of imposing” correctly conveys the purpose.

Quick Tip

”Speak in favor” and ”speak for” are common collocations in English when referring to speech related to an action or idea.

---

**154. Identify in which of the following sentences is the preposition ‘by’ used CORRECTLY.**

a) Can you come by to my house tomorrow?

b) The book was published by a leading publisher.

c) The government is planning to re-open the colleges by Monday.

d) The management accepted to resolve the problem by appointing a committee.

(A) c, d

(B) a, c

(C) b, d

(D) a, b, c

**Correct Answer:** (C) b, d

**Solution:**

In option b, ”by” is used correctly to indicate the agent of the action (”by a leading publisher”), and in option d, ”by” correctly refers to the means of resolving the problem (”by appointing”).

Quick Tip

”By” is used for the agent performing the action and for the method or means by which something is done.

---

**155. Identify in which of the following sentences is the preposition ‘at’ used correctly.**

a) At the very onset let me congratulate you on your success.

b) The desert at Rajasthan is called ‘The Great Indian desert’.

c) I was seated at the table with lots of pomp and show.

d) Will this be available in the hotel at the hill?

(A) a, c

(B) b, d

(C) a, b

(D) c, d

**Correct Answer:** (A) a, c

**Solution:**

In option a, ”at” is used correctly to describe the time point (”At the very onset”). In option c, ”at” is correctly used to denote a location (”at the table”).

Quick Tip

”At” is used for specific points in time and for precise locations.

---

**156. Fill in the blanks with the correct option:**

I do not know much _____ your plans but I feel sorry _____ you and your sister.

(A) with, at

(B) for, in

(C) until, about

(D) about, for

**Correct Answer:** (D) about, for

**Solution: Step 1:** The correct preposition for ”know much” is ”about,” as we commonly say

”know about something.” Thus, the first blank should be filled with ”about.”

**Step 2:** The correct preposition for ”feel sorry” is ”for,” as we typically express sympathy using ”feel sorry for someone.”

**Step 3:** Therefore, the correct phrase is ”I feel sorry for you and your sister,” which leads us to select option (D).

**Quick Tip**

When expressing knowledge or awareness about a subject, use ”about.” When expressing sympathy, use ”for.”

---

**157. Which of the following prepositions fill the blanks correctly?**

a) along

b) it,

c) through,

d) between,

e) to,

f) in,

g) from

”_____ Morning _____ has been raining heavily because of depression __ the Bay of Bengal, according _____ the weather forecast.”

(A) c, b, g, d

(B) g, b, f, e

(C) a, d, f, g

(D) c, b, d, f

**Correct Answer:** (B) g, b, f, e

**Solution:**

**Step 1:** Analyze the first blank: - The sentence starts with ”Morning,” indicating a reference to time.

- The correct preposition for indicating time duration is ”from”, so we use ”From Morning.”

**Step 2:** Analyze the second blank:

- The phrase ”has been raining heavily” needs a subject, and the best fit is ”it” referring to the weather.

- Correct phrase: ”it has been raining heavily.”

**Step 3:** Analyze the third blank: - The phrase ”depression __ the Bay of Bengal” needs a preposition to indicate the depression’s presence.

- The correct preposition is ”in”, so we use ”depression in the Bay of Bengal.”

**Step 4:** Analyze the fourth blank:

- The phrase ”according _____ the weather forecast” is a standard phrase, and the correct preposition is ”to” (according to).

- Correct phrase: ”according to the weather forecast.”

**Final Conclusion:** The correct sequence is **”From Morning it has been raining heavily because of depression in the Bay of Bengal, according to the weather forecast.”** Thus, the correct answer is **(B) g, b, f, e**.

Quick Tip

- Use ”from” to indicate a starting point in time.
- ”It” is used as the subject when referring to weather conditions.
- ”In” is used for geographical locations like ”the Bay of Bengal.”
- ”According to” is the correct phrase for referring to sources.

---

**158. Which of the following prepositions fill the blanks correctly?**

a) In front of

b)it

c)through

d) between

e)to

f) before

g)from

”Standing __ the two roads, I was finding __ difficult —— choose —- two paths.”

(A) d, e, f, g

(B) c, b, d, f

(C) b, d, f, e

(D) a, b, e, d

**Correct Answer:** (D) a, b, e, d

**Solution:**

- ”Standing at” is correct for the location near roads.

- ”Finding it difficult” should use ”it” as the object of the difficulty.

- ”Choosing between” fits when selecting from options.

Hence, the correct prepositions are a (in front of), b (it), e (to), d (between).

**Quick Tip**

Prepositions depend on context: ”at” for locations, ”between” for selections, and ”it” for an object of reference.

---

**159. Identify from the list all the quantifiers that can fit the blank correctly:**

”__ food is cooked and you need not be anxious.”

a) Much

b) Many

c) Enough

d) All

e) Several

f) Lots of

(A) a and b

(B) b, d, and e

(C) a, c, and f

(D) b and e

**Correct Answer:** (C) a, c, and f

**Solution:**

- ”Much” refers to a large quantity in general.

- ”Enough” fits when you want to indicate an adequate quantity. - ”Lots of” also indicates a

large quantity.

Hence, the quantifiers a (much), c (enough), and f (lots of) are correct.

**Quick Tip**

Use ”much” for uncountable nouns, ”enough” for adequacy, and ”lots of” for abundance.

---

**160. In which of the following sentences is the quantifier used CORRECTLY?**

a) I have observed him **many** a time before reprimanding him.

b) **Any** time you want me to help, I will be ready to do my bit.

c) **Much** of the spectators were disappointed with the performance of the team.

d) **Both** people were asked to vacate the scene immediately.

(A) a and b

(B) a, b, c, and d

(C) b and d

(D) c and d

**Correct Answer:** (A) a and b

**Solution:**

- In option b, ”Any time” is used correctly to express any possible moment.

- In option a, ”many” is used to refer to more than one time. Hence, a and b are correct.

**Quick Tip**

”Any” can indicate an indefinite quantity, and ”both” is for two items or people.

---

**Read the following passage and answer the questions(161-162):**

“Never mistake knowledge for wisdom. One helps you make a living; the other helps you make a life.” — Sandra Carey Knowledge and wisdom are different things. According to Russell, knowledge is defined as the acquisition of data and information, while wisdom is defined as the practical application and use of the knowledge to create value. Wisdom is gained through learning and practical experience, not just memorization. A sense of

proportion is very much necessary for wisdom. By inventing medicine, a scientist may reduce the infant death-rate. Apparently, it leads to population explosion and shortage of food. The standard of life comes down. If misused, knowledge of atom can lead human to destruction by manufacturing nuclear weapon. Knowledge without wisdom can be harmful. Even complete knowledge is not enough. For example, Hegel wrote with great knowledge about history, but made the Germans believe that they were a master race. It led to war. It is necessary, therefore to combine knowledge with feelings. We need wisdom both in public and private life. We need wisdom to decide the goal of our life. We need it to free ourselves from personal prejudices. Wisdom is needed to avoid dislike for one another. Two persons may remain enemies because of their prejudice. If they can be told that we all have flaws then they may become friends. So, 'Hate Hatred' should be our slogan. Wisdom lies in freeing ourselves from the control of our sense organs. Our ego develops through our senses. We cannot be free from the sense of sight, sound and touch. We know the world primarily through our senses. As we grow we discover that there are other things also. We start recognizing them. Thus, we give up thinking of ourselves alone. We start thinking of other people and grow wiser. We give up on our ego. Wisdom comes when we start loving others. Russell feels that wisdom can be taught as a goal of education. Even though we are born unwise which we cannot help, we can cultivate wisdom. Queen Elizabeth —, Henry IV and Abraham Lincoln, are some impressive personalities who fused vigour with wisdom and fought the evil.

**161. According to the passage, which of the following statements is a TRUE statement?**

A) Reducing child mortality rate has no impact in increasing population rate.

B) Once a person is free from the control of sense organs he becomes less wise.

C) The whole world acknowledges the fact that Germans are the master race.

D) Knowledge devoid of wisdom can be harmful leading to human destruction.

(A) A

(B) B

(C) C

(D) D

**Correct Answer:** (D) D

**Solution:**

- Option D is true according to the passage, which emphasizes the dangers of knowledge without wisdom, leading to harm and destruction.

Other options are false or do not align with the passage's message.

Quick Tip

In analyzing passages, focus on the key arguments to discern the correct statement.

---

**162. The main purpose of the passage is to**

A) Explain how to cultivate knowledge and avoid egoistic nature

B) Identify personalities who combined wisdom and knowledge

C) Convey that knowledge and wisdom must go hand in hand

D) List out all the differences between knowledge and wisdom.

(A) A

(B) B

(C) C

(D) D

**Correct Answer:** (C) C

**Solution:**

The main purpose of the passage is to convey that knowledge and wisdom must go hand in hand, as discussed in the examples of history and the need for wisdom in all aspects of life.

Quick Tip

When identifying the main purpose of a passage, look for the central theme or recurring idea.

---

**163. Which of the following is NOT an antonym of CHALLENGING?**

A) deny

B) answer

C) ignore

D) confront

(A) A

(B) B

(C) C

(D) D

**Correct Answer:** (D) D

**Solution:**

- ”Confront” is not an antonym of ”challenging.”

- ”Answer,” ”ignore,” and ”deny” are all possible opposites of ”challenging” depending on context.

Hence, option D is the correct answer as it is not an antonym of ”challenging.”

Quick Tip

When identifying antonyms, consider the context and meaning of the word.

---

**164. Identify all the synonyms of the given word: GLOOMY**

a) Bleak

b) Dark

c) Bright

d) Cheerful

e) Dull

(A) a, b, e

(B) b, c

(C) c, d

(D) a, b, c, d

**Correct Answer:** (A) a, b, e

**Solution:**

- ”Gloomy” refers to something dark or bleak, and ”dull” can also describe something gloomy.

- ”Bright” and ”cheerful” are opposites of ”gloomy.” Hence, the correct synonyms are a (bleak), b (dark), and e (dull).

Quick Tip

Synonyms share similar meanings, so look for words that describe a similar mood or feeling.

---

**165. Identify all the synonyms of the given word: TRIUMPH**

a) lose

b) surrender

c) fail

d) conquer

e) overcome

f) dominate

(A) a, d, e

(B) c, e, f

(C) d, e, f

(D) b, d, e, f

**Correct Answer:** (C) d, e, f

**Solution:**

- ”Triumph” means success, victory, or overcoming.

- ”Conquer,” ”overcome,” and ”dominate” all mean similar things to ”triumph.”

Hence, the correct synonyms are d (conquer), e (overcome), and f (dominate).

Quick Tip

Look for words that imply victory or success to identify synonyms for ”triumph.”

---

**166. Select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.**

Learn to _____ when you take help from someone.

a) Recover

b) Request

c) Reciprocate

d) Refuse

e) Repay

f) Regret

**Options:**

(A) a)

(B) b)

(C) c)

(D) d)

(5) e)

(6) f)

**Correct Answer:** (B) b, e

**Solution:**

- ”Learn to reciprocate” and ”learn to repay” are correct in the context of the sentence.

- ”Request” and ”Regret” are not appropriate to complete the sentence.

Hence, the correct options are ”Reciprocate” and ”Repay”.

Quick Tip

When completing a sentence with a blank, focus on verbs that maintain the context of mutual actions.

---

**167. Select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.**

Although he is famous for his _____ nature, he is often criticized for his rude behaviour.

a) Unmindful

b) Disagreeable

c) Greedy

d) Biased

e) Benevolent

f) Generous

(A) a, b

(B) c, d

(C) e, f

(D) b, d

**Correct Answer:** (C) e, f

**Solution:**

**Step 1:** Analyze the meaning of the sentence.

- The sentence suggests a contrast: ”he is famous for his ___ nature” (a positive trait) but ”is often criticized for his rude behaviour” (a negative trait).

- The missing word should represent a positive trait.

**Step 2:** Examine the given options. - (a) Unmindful – means inattentive or careless; does not fit.

- (b) Disagreeable – means unpleasant; does not fit.

- (c) Greedy – means selfish and wanting more; does not fit.

- (d) Biased – means showing favoritism; does not fit.

- (e) Benevolent – means kind and generous; fits well.

- (f) Generous – means giving and selfless; fits well.

**Final Conclusion:**

- The words ”benevolent” and ”generous” have similar meanings and align with the positive nature mentioned in the sentence.

- Therefore, the correct answer is **(C) e, f**.

Quick Tip

When selecting words to complete a sentence, ensure they fit the context and maintain parallel meaning across both options.

---

**168. Select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.**

The detective submitted _____ evidence to prove that the arrested person was the one who had committed the crime.

a) Copious

b) Rare

c) Meager

d) Ample

e) Incomplete

f) Flawed

A) ad

B) b,c

C) ef

D) cf

**Correct Answer:** (A) a, d

**Solution:**

- ”Copious” and ”Ample” are both suitable to describe evidence in this context as they suggest that the evidence was abundant or sufficient.

- ”Meager,” ”Incomplete,” and ”Flawed” suggest a lack of adequacy, which contradicts the need for conclusive evidence in solving a crime.

Quick Tip

When completing a sentence about evidence, focus on words that imply sufficiency and reliability.

---

**169. Which of the following sentences is CORRECTLY written?**

A) I will be bored with my self all of yesterday

B) I look forward to meeting my new boss

C) I have visited my sister yesterday.

D) I am liking your new house very much.

**Correct Answer:** (B) I look forward to meeting my new boss

**Solution:**

- ”I look forward to meeting my new boss” is grammatically correct as it is in the present continuous tense, appropriate for future plans.

- The other sentences are either structurally incorrect or improperly conjugated.

Quick Tip

Ensure proper verb tense agreement with time expressions like ”yesterday” or future events.

---

**170. Which of the following options can replace the underlined part of the sentence correctly?**

The young heros recent release is an unexpected hit.

a) The number of questions that you ask is never ending.

b) All the food that you have ordered for your friends is going waste.

c) Most of the birds will be migrating to safer places within winter.

d) I find it difficult to paying attention to his constant complaints

A)a and b

B)c and d

C) b and c

D) a and d

**Correct Answer:** (C) b and c

**Solution:**

- The correct phrasing is ”The young hero’s recent release” because the possessive form ”hero’s” is required, and ”recent” describes the release.

- The other options either misuse possessive forms or incorrectly use ”younger” when not needed.

Quick Tip

When indicating possession, use the apostrophe (’) to form the possessive case properly.

---

**171. Which of the following sentences are CORRECTLY written?**

a) The number of questions that you ask is never ending.

b) All the food that you have ordered for your friends is going waste.

c) Most of the birds will be migrating to safer places within winter.

d) I find it difficult to paying attention to his constant complaints.

(A) a and b

(B) c and d

(C) b and c

(D) a and d

**Correct Answer:** (A) a and b

**Solution:**

**Step 1:** Analyze each sentence for grammatical correctness.

- (a) ”The number of questions that you ask is never ending.”

- ”The number of” is a singular phrase, so the use of ”is” is correct.

- ”Never-ending” should be hyphenated as it is a compound adjective.

- Corrected sentence: ”The number of questions that you ask is never-ending.”

- This sentence is correct with minor formatting adjustments.

- (b) ”All the food that you have ordered for your friends is going waste.”

- ”Going waste” is incorrect; the correct phrase is ”going to waste.”

- Corrected sentence: ”All the food that you have ordered for your friends is going to waste.”

- This sentence is correct with minor correction.

- (c) ”Most of the birds will be migrating to safer places within winter.”

- ”Within winter” is incorrect; the correct preposition should be ”in winter.”

- Corrected sentence: ”Most of the birds will be migrating to safer places in winter.”

- This sentence is incorrect due to the incorrect preposition.

- (d) ”I find it difficult to paying attention to his constant complaints.” - ”To paying” is incorrect; the correct form is ”to pay attention.”

- Corrected sentence: ”I find it difficult to pay attention to his constant complaints.”

- This sentence is incorrect due to incorrect verb usage.

**Final Conclusion:**

- Sentences (a) and (b) are correctly structured.

- Therefore, the correct answer is **(A) a and b**.

Quick Tip

- Use ”never-ending” instead of ”never ending” as it is a compound adjective.
- The correct phrase is ”going to waste,” not ”going waste.”
- Use ”in winter” instead of ”within winter” for proper preposition usage.
- Use ”to pay attention” instead of ”to paying attention” for correct verb structure.

---

**172. Which of the following sentences is CORRECT?**

A) The police is responsible for maintaining law and order in the society.

B) Improving one’s status is always not so important for oneself.

C) I cannot give up everything that I am not wanting or liking.

D) If you had told me the truth, I would have helped you.

(A) A

(B) B

(C) C

(D) D

**Correct Answer:** (D) D

**Solution:**

- ”If you had told me the truth, I would have helped you” is correct because it uses the proper structure for a third conditional sentence.
- The other sentences are grammatically incorrect, such as ”The police is” (should be ”The police are”) and ”Improving one’s status is always not so important” (awkward phrasing).

Quick Tip

In conditional sentences, use the correct tense structure (third conditional for past situations).

---

**173. Which of the following sentences is INCORRECTLY written?**

A) Raghav is working with me since three years.

B) Your behaviour is the best among all your friends.

C) The place you are shifting to is big enough.

D) Can you confirm if anyone is joining the team?

**Correct Answer:** (A)

**Solution:**

- ”Raghav is working with me since three years” is incorrect. It should be ”Raghav has been working with me for three years” to reflect the present perfect continuous tense.
- ”Your behaviour is the best among all your friends” is also incorrect. It should be ”Your behaviour is the best of all your friends.”
- Options B, C and D are grammatically correct.

**Quick Tip**

When using time expressions like ”since,” use the present perfect tense correctly (has/have been).

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**174. Which of the following options can replace the underlined part of the sentence correctly?**

The percentage of Covid-19 cases and the number of deaths from Covid-19 is reflection of the level of spread of the pandemic.

(A) are reflective of the level of spread of the pandemic

(B) is reflecting the levels of spreading of the pandemic

(C) are reflecting the spreading levels in the pandemic

(D) is reflection in the levels of spreading in the pandemic

**Correct Answer:** (A) are reflective of the level of spread of the pandemic

**Solution:**

**Step 1:** The subject ”The percentage of Covid-19 cases and the number of deaths” is plural, so it requires a plural verb. The phrase ”is reflection” should be replaced with ”are reflective” to match the plural subject.

**Step 2:** The correct phrase is: ”are reflective of the level of spread”. The other options do not correctly maintain subject-verb agreement or use appropriate phrasing.

Quick Tip

When using compound subjects, make sure the verb agrees in number (plural subject = plural verb).

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**175. Fill in the blanks with the correct option:**

She ____ as a craft teacher before she ____ a famous painter.

(A) had worked, became

(B) is working, becomes

(C) has worked, becomes

(D) was working, had become

**Correct Answer:** (A) had worked, became

**Solution:**

**Step 1:** The past perfect tense ”had worked” is used because it describes an action completed before another past action. ”Became” is the simple past tense, which is used for the second event.

**Step 2:** The sentence indicates a sequence of events, where ”had worked” precedes ”became”, making this the correct choice.

Quick Tip

Use the past perfect tense for actions completed before another past event.

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**176. Fill in the blanks with the correct option:**

Yesterday, when my dad ____ out to buy his medicines he ____ with an accident.

(A) is going, meets

(B) will go, met

(C) was going, meeting

(D) went, met

**Correct Answer:** (D) went, met

**Solution:**

**Step 1:** The simple past tense ”went” and ”met” is appropriate for this sentence because it describes actions that happened in the past.

**Step 2:** The other options either incorrectly use the present tense or the continuous tense for past actions.

Quick Tip

Use simple past tense to describe events that happened at a specific time in the past.

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**177. Fill in the blanks with the correct option:**

I ____ tennis but my father used ____ cricket.

(A) will play, to playing

(B) played, to plays

(C) play, to play

(D) was playing, to playing

**Correct Answer:** (C) play, to play

**Solution:**

**Step 1:** The verb ”play” should be in its base form, and ”to play” is the correct infinitive form. The sentence talks about a general habit or preference.

**Step 2:** ”Used” refers to an activity that the father generally practices, and ”to play” indicates the purpose of the action.

Quick Tip

Use the base form of the verb after ”to” when indicating an intention or purpose.

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**178. Fill in the blanks with the correct option:**

The teacher ____ not satisfied with the responses of the students so ____ lesson in the next class.

(A) is, will repeat

(B) is, was repeating

(C) was, to repeat

(D) was, repeating

**Correct Answer:** (A) is, will repeat

**Solution:**

**Step 1:** The first part of the sentence ”The teacher is not satisfied” refers to a present state, and the second part ”will repeat” refers to a future action, so ”will repeat” is the correct future tense form.

**Step 2:** The other options either use incorrect verb tenses or combinations.

Quick Tip

Use ”will” to express future actions after a present state or condition.

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**179. Fill in the blanks with the correct option:**

By the time she ____ what was happening she ____ all the money from her account.

(A) realised, had lost

(B) was realising, lost

(C) realises, is losing

(D) was realising, was losing

**Correct Answer:** (A) realised, had lost

**Solution:**

**Step 1:** ”Had lost” refers to an event that occurred before another past event. The past perfect tense ”had lost” is appropriate here.

**Step 2:** ”Realised” refers to the moment when the person understood what had happened, which is the correct verb for the second part.

Quick Tip

Use the past perfect tense to describe actions that were completed before another past event.

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**180. Fill in the blanks with the correct option:**

While I ____ in my office, ____ a call from the chief minister.

(A) am working, was getting

(B) will be working, receive

(C) was working, received

(D) would work, I had received

**Correct Answer:** (C) was working, received

**Solution:**

**Step 1:** The sentence talks about an ongoing action in the past (”was working”) when another event occurred (”received”).

**Step 2:** The simple past tense ”received” describes the completed event that happened while the person was working.

Quick Tip

Use the past continuous tense for ongoing actions and the simple past for actions that interrupt the ongoing activity.

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