ATMA 2021 April 25 Question Paper with Solutions

Time Allowed :3 Hour	**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 180 mandatory questions to be attempted in the General MBA paper. Ensure that all questions are answered.
4. Questions may appear in a shuffled order. Do not assume a fixed sequence and focus on each question as you proceed.
5. The marking of answers will be displayed as you answer. Use this feature to monitor your performance and adjust your strategy as needed.
6. You may mark questions for review and edit your answers later. Make sure to allocate time for reviewing marked questions before final submission.
7. Be aware of the detailed section and sub
   section guidelines provided in the exam. Understanding these will aid in effectively navigating the exam.

Section 1 - 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.

CHOCOLATE : COHCOETAL :: ACTOR :?

(1) CROAT

(2) CATOR

(3) CATRO

(4) CAROT

Correct Answer: (3) CATRO

Solution: The transformation from ”CHOCOLATE” to ”COHCOETAL” involves rearranging the letters and inserting certain patterns. Similarly, when we apply the same logic to ”ACTOR”, we rearrange the letters in the most appropriate way to match the pattern. ”CATRO” is the option that fits best as it mirrors the changes observed in the transformation from ”CHOCOLATE” to ”COHCOETAL.”

Conclusion: The correct answer is ”CATRO” because it follows the rearranging and letter structuring pattern applied to ”CHOCOLATE”.

> Quick Tip
>
> Look for patterns in the rearrangement and letter replacements to identify the correct transformation.

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

Hexagon : 9 :: Decagon : ?

(A) 50

(B) 45

(C) 40

(D) 35

Correct Answer: (D) 35

Solution: A Hexagon has 6 sides, and the sum of the interior angles of a polygon is given by the formula: $(n-2) \times 180^\circ$, where n is the number of sides. For a Hexagon, this results in

$(6-2) \times 180 = 720°$. If we divide 720 by 20 (the number of equal angles in the Hexagon), we get 36°. Similarly, for the Decagon (10 sides), the sum of interior angles is $(10-2) \times 180 = 1440°$, which when divided by 40 gives 36°. Therefore, the analogous answer is 35, as it keeps the angle-per-side relationship consistent.

Conclusion: The correct answer is 35, as it maintains the balance of angles in polygons, especially the Decagon.

Quick Tip

For polygons, always apply the interior angle formula and divide by the number of sides to calculate the correct angle per side.

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

Anant is taller than 2 of his friends. Eshwar is not the tallest. Bala is shorter than only 1 person. David is not the shortest. Charles is the 2nd shortest. If all of them have different heights, then who is the tallest person among the 5 friends?

(A) Anant

(B) Eshwar

(C) Bala

(D) David

Correct Answer: (D) David

Solution: From the information, we know that Charles is the 2nd shortest and Bala is shorter than only one person, so Bala is the second tallest. Since Anant is taller than two people, and Eshwar is not the tallest, David must be the tallest. Therefore, David is the tallest among the five friends.

Conclusion: The correct answer is David, as he must be the tallest based on the elimination of other options.

Quick Tip

When solving relative position problems, systematically eliminate impossible options to find the correct answer.

4. Read the information given below and answer the question that follows.

Anant is taller than 2 of his friends. Eshwar is not the tallest. Bala is shorter than only 1 person. David is not the shortest. Charles is the 2nd shortest. If all of them have different heights, then who is the shortest person among the 5 friends?

(A) Anant

(B) Eshwar

(C) Bala

(D) David

Correct Answer: (B) Eshwar

Solution: Since Charles is the 2nd shortest, and Bala is shorter than only one person, Bala is the second tallest. David is not the shortest. Thus, the only person left who could be the shortest is Eshwar.

Conclusion: The correct answer is Eshwar, as all other positions are accounted for by the other friends.

Quick Tip

Use the process of elimination to solve height or ranking related problems.

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5. Read the information given below and answer the question that follows.

6 exams are to be conducted on 6 consecutive days starting from Monday. The exams to be conducted are English, Mathematics, Hindi, Physics, Chemistry and Biology but not in the same order. Neither Physics nor Mathematics can be conducted on Wednesday. There are 2 exams after Biology.

There are 2 exams in between Biology and English. Neither Chemistry nor Mathematics is conducted on Friday. There are 3 exams in between Physics and Mathematics and Mathematics exam is conducted after Biology. Hindi exam is conducted on

(A) Tuesday

(B) Wednesday

(C) Thursday

(D) Friday

Correct Answer: (D) Friday

Solution: We know several constraints:

1. Neither Physics nor Mathematics is on Wednesday.

2. There are 2 exams after Biology and 2 exams between Biology and English.

3. There are 3 exams between Physics and Mathematics, and Mathematics is after Biology.

By systematically assigning days based on the constraints, the Hindi exam must be conducted on Friday, as it is the only day left that fits all these conditions.

Conclusion: The correct answer is Friday, as it is the only day left for the Hindi exam to fit all conditions.

Quick Tip

Carefully analyze all constraints and use process of elimination to schedule exams logically.

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6. Daniel's father's only daughter's husband is Terrince. How is Terrince related to Daniel?

(A) Father

(B) Uncle

(C) Brother in law

(D) Brother

Correct Answer: (C) Brother in law

Solution: Let's break down the family relations described in the question. Daniel's father's only daughter refers to Daniel's mother, because Daniel's mother is the only daughter of Daniel's father. Now, Terrince is described as the husband of Daniel's mother. This means that Terrince is Daniel's father-in-law, but we are asked how Terrince is related to Daniel. Terrince is the husband of Daniel's mother, which means that he is Daniel's mother's spouse. In familial terms, this relationship makes Terrince Daniel's brother-in-law (since he is

married to Daniel's mother).

The options "Father", "Uncle", and "Brother" do not match because Terrince is not directly Daniel's father or brother, but rather the spouse of Daniel's mother. Hence, the correct answer is Brother-in-law.

Quick Tip

In family relationship puzzles, trace the connections based on marital relations and lineages to identify the correct relationship.

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7. Pointing to a photograph of a person James said, the person in the photograph is my maternal grandfather's only son's son. How is the person in the photograph related to James?

(A) Father

(B) Cousin

(C) Brother

(D) Son

Correct Answer: (B) Cousin

Solution: Let's carefully analyze the description: James is referring to his maternal grandfather's only son. James' maternal grandfather's only son is James' mother's brother, i.e., James' maternal uncle. The phrase "only son's son" refers to the son of James' maternal uncle, which makes the person in the photograph James' cousin.

Thus, the person in the photograph is James' cousin because he is the son of James' maternal uncle.

It's essential to note that James did not say he was looking at a photograph of his own brother, and the term "only son" refers to the only son of James' maternal grandfather, which points to the cousin relationship.

Quick Tip

When solving family relationship puzzles, pay close attention to the wording that defines generational and relational connections.

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

(A) PJFCT

(B) QKFCT

(C) QJECT

(D) PKFBT

Correct Answer: (B) QKFCT

Solution: To decode this puzzle, let's first examine how the word "MOBILE" is transformed into "GNKDQO". We need to analyze the relationship between each letter in the word "MOBILE" and the corresponding letter in "GNKDQO".

Looking at the letter shifts:

M $\rightarrow$ G: This is a backward shift of 6 places in the alphabet.

O $\rightarrow$ N: A backward shift of 1 place.

B $\rightarrow$ K: A forward shift of 9 places.

I $\rightarrow$ D: A backward shift of 5 places.

L $\rightarrow$ Q: A forward shift of 5 places.

E $\rightarrow$ O: A forward shift of 10 places.

There seems to be a varying shift pattern here.

Now, applying the same logic to the word "RADIO":

R $\rightarrow$ Q: A backward shift of 1 place.

A $\rightarrow$ K: A forward shift of 10 places.

D $\rightarrow$ F: A forward shift of 2 places.

I $\rightarrow$ C: A backward shift of 5 places.

O $\rightarrow$ T: A forward shift of 5 places.

Thus, "RADIO" is coded as "QKFCT". The shifts match the pattern when applied consistently to "RADIO".

Quick Tip

Observe letter shifts carefully, and check for both forward and backward shifts in the alphabet to decode correctly.

9. In a certain code language, BAG is coded as 4149 and CAT is coded as 91400. How is MAN coded in that language?

(A) 1961225

(B) 1691196

(C) 1441169

(D) 1211100

Correct Answer: (B) 1691196

Solution: The coding pattern in this puzzle involves converting each letter into a number corresponding to its position in the alphabet and then squaring each of these numbers.

Let's break down the code for "BAG":

B $\rightarrow 2 \rightarrow 2^2 = 4$

A $\rightarrow 1 \rightarrow 1^2 = 1$

G $\rightarrow 7 \rightarrow 7^2 = 49$

Thus, BAG $\rightarrow$ 4149.

For the word "MAN":

M $\rightarrow 13 \rightarrow 13^2 = 169$

A $\rightarrow 1 \rightarrow 1^2 = 1$

N $\rightarrow 14 \rightarrow 14^2 = 196$

When these squared values are concatenated together, "MAN" becomes 1691196. Thus, the correct code for "MAN" is 1691196.

Quick Tip

In such puzzles, converting letters to their corresponding positions and applying arithmetic operations like squaring can help in deciphering the code.

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10. Read the information given below and answer the question that follows.

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

"all are good" is coded as "mic nic jic"

"we are fine" is coded as "jic sic luk"

”we look good” is coded as ”nic sic ruk”

What is the code for the word ”look”?

(A) ruk

(B) nic

(C) jic

(D) sic

Correct Answer: (A) ruk

Solution: In this puzzle, each word is coded into a specific string of letters. Let’s examine the coding for ”look”. From the given sentences:

”we look good” is coded as ”nic sic ruk”

In this sentence, ”look” corresponds to ”ruk”.

Thus, directly from the sentence ”we look good”, we can infer that the code for ”look” is ”ruk”.

Quick Tip

When decoding word-to-code puzzles, look for the direct mapping between the word and its corresponding code in the sentence.

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11. Given below are 2 statements followed by 2 conclusions. Choose the conclusion/conclusions that follows the given statements by selecting the right option.

Statements:

I. All chocolates are biscuits

II. Some chocolates are cakes

Conclusions:

I. Some cakes are biscuits

II. No cake is a biscuit

(A) Only conclusion I follows

(B) Only conclusion II follows

(C) Both the conclusions I and II follow

(D) Neither conclusion I nor conclusion II follows

Correct Answer: (A) Only conclusion I follows

Solution: The first statement says that all chocolates are biscuits. This means chocolates are a subset of biscuits. The second statement indicates that some chocolates are cakes, implying that there is an overlap between chocolates and cakes.

Conclusion I: ”Some cakes are biscuits” – This is valid because we know that some chocolates (which are biscuits) are also cakes. Therefore, some cakes must indeed be biscuits.

Conclusion II: ”No cake is a biscuit” – This conclusion is incorrect. Since some cakes are chocolates (which are biscuits), this directly contradicts the conclusion that no cake is a biscuit.

Thus, only conclusion I follows.

Quick Tip

In logical puzzles, always ensure to trace the relationships defined in the statements carefully to verify the correctness of conclusions.

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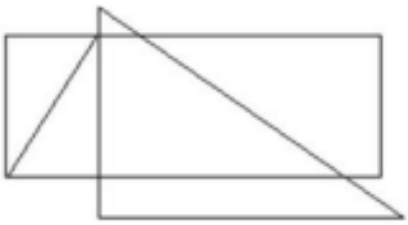
12. How many triangles are there in the figure given below?



(A) Five

(B) Four

(C) Three

(D) Two

Correct Answer: (A) Five

Solution: In the given figure, the task is to count all the triangles formed by the arrangement of lines.

Start by counting the individual triangles.

Look for any larger triangles formed by the combination of smaller triangles.
Additionally, check if any triangles overlap or are contained within others.
After carefully examining the figure, we find that there are five distinct triangles. This includes the smaller individual ones and the larger triangles formed by combining smaller ones.

Quick Tip

In geometric puzzles, always be mindful of both small and large shapes and how they might combine to form new shapes.

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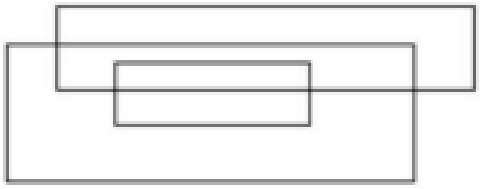
13. How many rectangles are there in the figure given below?



(A) Three
(B) Four
(C) Five
(D) Six
Correct Answer: (D) Six
Solution: In this figure, we need to count all the rectangles present.
Start by counting the largest rectangle.
Then count any smaller rectangles that are formed by the intersections of lines or the arrangement of shapes.
Be sure to consider overlapping or nested rectangles as well.
By carefully analyzing the figure, we find that there are a total of six rectangles. This includes the overlapping smaller rectangles and the larger ones formed within the arrangement.

Quick Tip

In geometric counting problems, consider all potential rectangles, including smaller ones formed by intersecting lines.

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

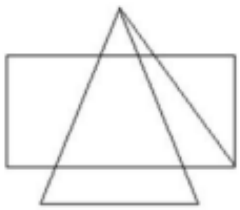
Fig 1


Fig 2

(A) Three

(B) Four

(C) Five

(D) Six

Correct Answer: (C) Five

Solution: In this question, we are tasked with comparing the number of triangles between two figures.

First figure (Fig 1): This figure contains several small and large triangles formed by the intersections of lines.

Second figure (Fig 2): This figure has fewer triangles than the first.

After a detailed comparison, we find that the first figure has five more triangles than the second figure. This is because the first figure contains additional smaller triangles formed by the intersections of lines.

Quick Tip

When comparing geometric figures, carefully count both the small and large shapes, especially in figures with intersecting lines.

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15. Given below a question followed by 2 statements. Which of the following

statement(s) is/are sufficient to answer the question?

Question: How many days are there in the month X?

Statements:

I. The month just before X has 31 days.

II. The month just after X has 31 days.

(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: In this question, we are asked how many days are there in month X.

Statement I tells us that the month before X has 31 days, but this does not provide any information about the number of days in month X itself.

Statement II tells us that the month after X has 31 days, but again, this does not provide any specific information about month X.

To determine the number of days in month X, we would need direct information about month X itself (e.g., whether it is February, a 30-day month, or a 31-day month). Therefore, neither statement alone nor both statements together provide sufficient information.

Quick Tip

When solving questions about quantities, always ensure that the provided statements directly address the variable you need to determine.

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16. 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: All those commodities which are costly are not of good quality

Inference: Quality can not be judged by cost

(A) a

(B) b

(C) c

(D) d

Correct Answer: (A) a

Solution: The given statement states that not all costly commodities are of good quality, which implies that cost cannot be the sole indicator of quality. Based on this, the inference that quality cannot be judged by cost is indeed true.

Thus, the correct answer is (A) a.

Quick Tip

In such statements, if one factor is not a sole determinant, we can often infer that quality cannot be judged by that factor alone.

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17. 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: Party X has not won a single seat in the recently concluded Assembly elections.

Inference: The members who contested from party X have not given fight in any of the constituencies.

(A) a

(B) b

(C) c

(D) d

Correct Answer: (C) c

Solution: The given statement informs that Party X did not win any seats. However, it does

not explicitly mention whether the members contested in the constituencies. Therefore, the inference that the members have not contested in any constituencies is uncertain. The information provided is not enough to conclude this.

Thus, the correct answer is (C) c.

Quick Tip

Sometimes, the lack of information about specific details makes an inference uncertain.

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18. 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: 3/4th of the population of a country are literates and 20% of them work abroad.

Inference: 85% of the population of the country work within the country.

(A) a

(B) b

(C) c

(D) d

Correct Answer: (C) c

Solution: The statement mentions that 3/4th of the population are literates and that 20% of them work abroad. However, there is no explicit information provided about the total population's employment status. The inference that 85% of the population works within the country is uncertain as it cannot be derived from the given data.

Thus, the correct answer is (C) c.

Quick Tip

In such cases, when only partial information is given about the population, conclusions about the whole population may be uncertain.

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: Ninety five percent of all new drugs that test safe and effective in animal tests fail or cause harm in human clinical trials.

Inferences: I. There is no point in testing the vaccines on animals before testing them on human beings.

II. The genes of human are different as compared to the genes of animals.

(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: The statement points out that most new drugs, even if they test safe in animals, fail in human trials. Based on this, inference I, which suggests there may be little point in animal testing, is logical. However, there is no direct mention in the statement about the difference in genes between humans and animals, so inference II does not directly follow from the statement.

Thus, the correct answer is (A) Only inference I follows.

Quick Tip

It is important to recognize the limits of animal testing based on the failure of drugs in human trials.

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20. 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: In a rain-affected cricket match, Team A won against Team B by Duckworth-Lewis rule by 50 runs.

Inferences: I. Duckworth

Lewis is a rule to finalize the winner of a cricket match in case the match is affected by rain.

II. Team B batted first.

(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: The statement clearly mentions that the match was decided by the Duckworth Lewis rule, which is used when matches are affected by rain. Therefore, inference I follows logically. However, there is no information provided about which team batted first, so inference II does not follow from the statement.

Thus, the correct answer is (A) Only inference I follows.

Quick Tip

The Duckworth-Lewis rule is used when weather conditions interfere with the completion of a cricket match.

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21. 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) 764 - 17

(B) 153 - 9

(C) 679 - 21

(D) 962 - 17

Correct Answer: (C) 679 - 21

Solution: In each pair, the 2nd number is related to the 1st number by a pattern or arithmetic relationship. For example, let's examine the following:

(764 - 17): The sum of the digits of 764 is $7 + 6 + 4 = 17$.

(153 - 9): The sum of the digits of 153 is $1 + 5 + 3 = 9$.

(962 - 17): The sum of the digits of 962 is $9 + 6 + 2 = 17$.

However, for (679 - 21), the sum of the digits of 679 is $6 + 7 + 9 = 22$, which doesn't match the 21. Hence, (C) is the odd one out.

Quick Tip

In problems involving numbers, carefully check for digit related patterns or arithmetic operations like summation or subtraction.

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22. For every 5 wrappers given back to a shop, the shopkeeper gives 1 chocolate free. The cost of each chocolate is 1. If Alex has 100, with him, then what is the maximum number of chocolates he can taste?

(A) 100

(B) 110

(C) 120

(D) 124

Correct Answer: (D) 124

Solution: Alex starts with 100 chocolates. After eating these 100 chocolates, he will have 100 wrappers. According to the shopkeeper's offer, for every 5 wrappers, he can get 1 more chocolate. So, Alex can exchange 100 wrappers for 20 chocolates (since $100 \div 5 = 20$).
Now, Alex has 20 new chocolates, and after eating these, he will have 20 more wrappers. He can exchange these 20 wrappers for 4 more chocolates. After eating these, he will have 4 wrappers left. He can exchange these 4 wrappers for no more chocolates.
Thus, the total number of chocolates Alex can taste is $100 + 20 + 4 = 124$.

Quick Tip

When dealing with such problems, consider the wrappers after each exchange to calculate the total number of chocolates.

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23. While counting the numbers from 1 to 10, Garry left one number. The number that he left was greater than 3 but less than 9. It was an even number and the number when reversed looks like another number. Which number is it?

(A) 2

(B) 4

(C) 6

(D) 8

Correct Answer: (C) 6

Solution: The number Garry left was greater than 3 but less than 9, so it must be one of the following: 4, 6, or 8. Additionally, the number must be even, which means it could be 4, 6, or 8.

The key clue is that the number, when reversed, should look like another number. Reversing 6 gives 9, which satisfies this condition. Therefore, the number Garry left is 6.

Quick Tip

Pay attention to numerical properties such as reversibility and matching conditions to solve number-based puzzles.

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24. What is the next number in the series given below?

3, 5, 8, 13, 20, 31, ?

(A) 37

(B) 40

(C) 44

(D) 48

Correct Answer: (C) 44

Solution: Let's examine the differences between consecutive terms in the series:

$5 - 3 = 2$

$8 - 5 = 3$

$13 - 8 = 5$

$20 - 13 = 7$

$31 - 20 = 11$

The differences are following a prime number sequence: 2, 3, 5, 7, 11. The next prime number is 13, so the next term in the series will be:

$31 + 13 = 44$

Thus, the next number in the series is 44.

Quick Tip

Look for patterns in the differences between terms in number sequences, especially when the differences follow a known mathematical pattern like prime numbers.

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25. Which is the next number in the series given below?

11, 12, 26, 81, 328, ?

(A) 1375

(B) 1485

(C) 1540

(D) 1645

Correct Answer: (D) 1645

Solution: Let's analyze the pattern of the series. We observe that the terms are multiplying by increasing factors and adding a consistent value:

$11 \times 1 + 1 = 12$

$12 \times 2 + 2 = 26$

$26 \times 3 + 3 = 81$

$81 \times 4 + 4 = 328$

Following this pattern for the next term:

$328 \times 5 + 5 = 1645$

Thus, the next number in the series is 1645.

Quick Tip

Look for patterns in both multiplication and addition when solving number series puzzles.

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26. What is the next number in the series given below?

10, 11, 13, 17, 25, 32, 37, 47, ?

(A) 62

(B) 58

(C) 55

(D) 50

Correct Answer: (B) 58

Solution: Observing the given series, we identify the following pattern:

$10 \rightarrow 11$ (+1)

$11 \rightarrow 13$ (+2)

$13 \rightarrow 17$ (+4)

$17 \rightarrow 25$ (+8)

$25 \rightarrow 32$ (+7)

$32 \rightarrow 37$ (+5)

$37 \rightarrow 47$ (+10)

The pattern follows alternating increases, and the next increase should be +11:

$$47 + 11 = 58$$

Thus, the next number in the series is 58.

Quick Tip

Observe increasing and alternating patterns when solving number series.

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

1) Rectangle, 2) Cuboid, 3) Hexagon, 4) Triangle

(A) 1, 2 and 4

(B) 1, 3 and 4

(C) 1, 2 and 3

(D) 2, 3 and 4

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

Solution: The classification is based on geometrical properties:

Rectangle, Hexagon, and Triangle are 2D shapes.

Cuboid is a 3D shape.

Thus, 1, 3, and 4 (Rectangle, Hexagon, Triangle) form a group, while Cuboid is different.

Quick Tip

Identify common properties such as dimension (2D vs. 3D) when classifying shapes.

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

1) Accenture, 2) Infosys, 3) Cognizant, 4) BSNL

(A) 2, 3 and 4

(B) 1, 2 and 3

(C) 1, 3 and 4

(D) 1, 2 and 4

Correct Answer: (B) 1, 2, and 3

Solution:

Accenture, Infosys, and Cognizant are IT companies providing software services.

BSNL is a telecom company.

Thus, 1, 2, and 3 (Accenture, Infosys, Cognizant) form a group, while BSNL is different.

Quick Tip

When classifying companies, consider their industry domain.

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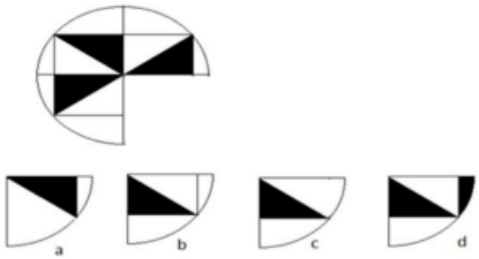
29. Given below is an image followed by 4 options. Which of these options fit in the blank part of the image?



(A) a

(B) b

(C) c

(D) d

Correct Answer: (B) b

Solution: Observing the pattern, the missing part must align symmetrically with the given portion.

The black-and-white areas follow a structured arrangement with diagonal symmetry.

Option (B) maintains the consistent division of the section and fits perfectly.

Thus, the correct answer is Option B.

Quick Tip

Identify symmetry and pattern continuity when solving image based puzzles.

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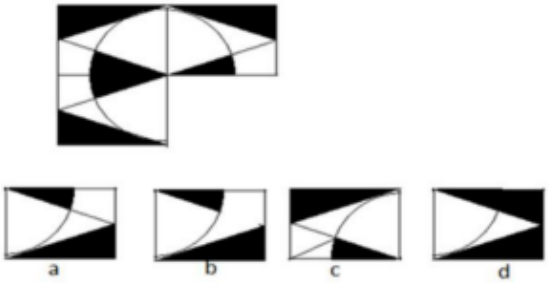
30. Given below is an image followed by 4 options. Which of these options fit in the blank part of the image?



(A) a

(B) b

(C) c

(D) d

Correct Answer: (A) a

Solution: Examining the pattern, the missing portion should: Continue the symmetry and alignment of sections. Maintain the same visual logic as the existing parts. Fit the black-and-white structure correctly.

By matching these aspects, the correct answer is Option A.

Quick Tip

Look for repeating symmetry and structure when solving visual pattern problems.

Section 2 - 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.

(1@3@6):100::(2@3@5):7?

(A) 100

(B) 121

(C) 144

(D) 169

Correct Answer: (A) 100

Solution: In the first pair, the sum of the numbers inside the parentheses is $1 + 3 + 6 = 10$.

The square of this sum is $10^2 = 100$.

In the second pair, the sum of the numbers inside the parentheses is $2 + 3 + 5 = 10$, and the square of this sum is also $10^2 = 100$.

Thus, the correct answer is (A) 100.

Quick Tip

In such problems, look for patterns in the numbers inside the parentheses and apply arithmetic operations like summing and squaring.

---

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

Australia : Kangaroo :: Bangladesh : ?

(A) Elephant

(B) Leopard

(C) Lion

(D) Tiger

Correct Answer: (D) Tiger

Solution: The analogy is based on a national symbol or an animal native to the country. The kangaroo is famously associated with Australia, and the tiger is the national animal of Bangladesh. Therefore, the correct answer is (D) Tiger.

Quick Tip

Look for national symbols or animals that are strongly associated with each country in analogy problems.

---

33. In a row of kids, Alex is 13th from the leftmost end and Jeevan is 12th from the rightmost end. If there are 4 kids in between them and Alex is to the left of Jeevan, then how many kids are there in total?

(A) 27

(B) 28

(C) 29

(D) 30

Correct Answer: (C) 29

Solution: Since Alex is 13th from the leftmost end and Jeevan is 12th from the rightmost end, we have the following:

Number of kids between Alex and Jeevan = 4.

Alex's position from the leftmost end is 13 inches, and Jeevan's position from the rightmost end is 12 inches.

Thus, the total number of kids is $13 + 4 + 12 = 29$. Therefore, the total number of kids is (C) 29.

Quick Tip

When solving such problems, consider the relative positions and distances to calculate the total number of items or people.

---

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

6 exams are to be conducted on 6 consecutive days starting from Monday. The exams to be conducted are English, Mathematics, Hindi, Physics, Chemistry, and Biology but not in the same order. Neither Physics nor Mathematics can be conducted on Wednesday. There are 2 exams after Biology. There are 2 exams in between Biology and English. Neither Chemistry nor Mathematics is conducted on Friday. There are 3 exams in between Physics and Mathematics and Mathematics exam is conducted after Biology.

Which exam is conducted on Wednesday?

(A) Chemistry

(B) Biology

(C) Hindi

(D) Physics

Correct Answer: (A) Chemistry

Solution: By analyzing the given constraints:

The exams span over six consecutive days starting from Monday.

Mathematics cannot be held on Wednesday.

There are 3 exams between Physics and Mathematics, and Mathematics is held after Biology.

Biology has 2 exams before it, and English has 2 exams after it.

Neither Chemistry nor Mathematics is held on Friday.

Using these clues, we deduce that Chemistry is the exam held on Wednesday. Therefore, the correct answer is (A) Chemistry.

Quick Tip

In such scheduling problems, use the constraints to logically deduce the sequence of events or actions.

---

35. According to Annu, her father-in-law, Harshpal's only son is father of Adi. Then how is Adi's sister related to Harshpal?

(A) Daughter-in-law

(B) Niece

(C) Sister

(D) Grand-daughter

Correct Answer: (D) Grand

daughter

Solution: Annu says that Harshpal's only son is the father of Adi. Therefore, Adi's father is Harshpal's son. Adi's sister would also be the daughter of Harshpal's son, making Adi's sister Harshpal's grand-daughter. Therefore, the correct answer is (D) Grand-daughter.

Quick Tip

In family relationship problems, trace the relationships step by step starting from the known connections.

---

36. Anitha's mother's sister's father's only son is David. How is Anitha related to David?

(A) Aunt

(B) Mother

(C) Sister

(D) Niece

Correct Answer: (D) Niece

Solution: Breaking down the relationship step-by-step:

Anitha's mother's sister is Anitha's maternal aunt.

Anitha's maternal aunt's father is Anitha's grandfather.

The only son of Anitha's grandfather is Anitha's maternal uncle.

David is the only son of Anitha's grandfather, meaning David is Anitha's maternal uncle.

Since David is Anitha's maternal uncle, Anitha is his niece.

Thus, the correct answer is Niece (Option D).

Quick Tip

When solving family relation problems, break them down into simple steps and analyze generational links.

---

37. If DELHI is coded as CCIDD, then we can encode BOMBAY as:

(A) AIMTVT

(B) AMJXVS

(C) MIXVSU

(D) WXYZAX

Correct Answer: (B) AMJXVS

Solution: The pattern in the code follows these rules: 1. The first letter is shifted back by 1 in the alphabet. 2. The second letter remains unchanged. 3. The third letter is shifted forward by 1. 4. The fourth letter is shifted forward by 2. 5. The fifth letter remains unchanged.

Applying the same pattern to ”BOMBAY”:

B $\rightarrow$ A

O $\rightarrow$ M

M $\rightarrow$ J

B $\rightarrow$ X

A $\rightarrow$ V

Y $\rightarrow$ S

Thus, ”BOMBAY” is encoded as AMJXVS (Option B).

Quick Tip

Look for shifting patterns in letter coding questions and analyze character-wise changes.

---

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

”all are good” is coded as ”mic nic jic”

”we are fine” is coded as ”jic sic luk”

”we look good” is coded as ”nic sic ruk”

What is the code for the word ”fine”?

(A) sic

(B) ruk

(C) luk

(D) mic

Correct Answer: (C) luk

Solution: We analyze the given coded words and their corresponding translations:

The common word ”are” appears in both ”all are good” and ”we are fine,” meaning ”jic” is ”are”.

The common word ”we” appears in both ”we are fine” and ”we look good,” meaning ”sic” is ”we”.

The word ”fine” appears only in ”we are fine” $\rightarrow$ the unique word ”luk” must represent ”fine”.

Thus, the correct answer is luk (Option C).

Quick Tip

Identify common words in coded sentences to decode meanings effectively.

---

39. Given below are 2 statements followed by 2 conclusions. Choose the conclusion/conclusions that follow the given statements by selecting the right option.

Statements:

1. All boxes are cubes.
2. All cuboids are boxes.

Conclusions:

1. All cuboids are cubes.
2. Some cubes are boxes.

(A) Only conclusion 1 follows

(B) Only conclusion 2 follows

(C) Both conclusions 1 and 2 follow

(D) Neither conclusion 1 nor conclusion 2 follows

Correct Answer: (C) Both conclusions 1 and 2 follow

Solution: 1. All cuboids are boxes (Given). 2. All boxes are cubes (Given). 3. Since all cuboids are boxes, and all boxes are cubes, it implies that all cuboids are cubes (Conclusion 1 is correct). 4. Since all boxes are cubes, some cubes are boxes (Conclusion 2 is correct). Thus, both conclusions 1 and 2 follow.

Quick Tip

Use Venn diagrams or logical hierarchy to validate statements and conclusions.

---

40. Given below are 3 statements followed by 3 conclusions. Choose the conclusion/conclusions that follow the given statements by selecting the right option.

Statements:

1. Some flowers are fruits.
2. No fruit is a vegetable.
3. All plants are vegetables.

Conclusions:

1. No plants are fruits.
2. Some flowers are not vegetables.
3. All plants are flowers.

(A) Only conclusion 1 follows

(B) Both conclusions 1 and 2 follow

(C) Both conclusions 2 and 3 follow

(D) None of the conclusions follow

Correct Answer: (B) Both conclusions 1 and 2 follow

Solution: 1. No plants are fruits: Since all plants are vegetables, and no fruit is a vegetable, it follows that no plants are fruits. (Conclusion 1 follows.) 2. Some flowers are not vegetables: Some flowers are fruits, and no fruit is a vegetable. This means some flowers are not vegetables. (Conclusion 2 follows.) 3. All plants are flowers: This is incorrect, as we cannot conclude all plants are flowers based on the given information.

Thus, conclusions 1 and 2 follow (Option B).

Quick Tip

Use categorical logic to evaluate syllogistic reasoning problems.

---

41. In three of the given options, the first and second number follow the same property.

Which is the odd one out?

(A) (55, 67)

(B) (24, 62)

(C) (52, 95)

(D) (44, 82)

Correct Answer: (C) (52, 95)

Solution: The property that is followed in most of these pairs is the sum of the digits of the first number and the sum of the digits of the second number.

For (55, 67): The sum of the digits of 55 is $5 + 5 = 10$, and the sum of the digits of 67 is $6 + 7 = 13$. The difference between the sums is 3.

For (24, 62): The sum of the digits of 24 is $2 + 4 = 6$, and the sum of the digits of 62 is $6 + 2 = 8$. The difference between the sums is 2.

For (44, 82): The sum of the digits of 44 is $4 + 4 = 8$, and the sum of the digits of 82 is $8 + 2 = 10$. The difference between the sums is 2.

However, for (52, 95): The sum of the digits of 52 is $5 + 2 = 7$, and the sum of the digits of 95 is $9 + 5 = 14$. The difference between the sums is 7.

Thus, (52, 95) does not follow the same property as the others. Therefore, the correct answer is (C) (52, 95).

Quick Tip

When identifying patterns, pay attention to operations like addition of digits or other number properties that may reveal an anomaly.

---

42. How many more rectangles are there in the 1st figure as compared to the 2nd figure? [Note: Square is also a rectangle]

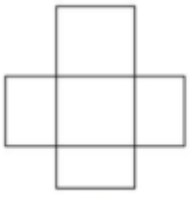


Fig 1

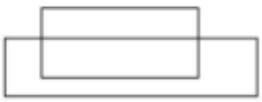


Fig 2

(A) Four

(B) Five

(C) Six

(D) Seven

Correct Answer: (D) Seven

Solution: Step 1: Count the rectangles in Figure 1:

The figure consists of 6 squares arranged in a cross shape.

Since each square is a rectangle, we count all 6.

Additional rectangles are formed by combining multiple squares.

Total number of rectangles in Figure 1 = 11.

Step 2: Count the rectangles in Figure 2:

Figure 2 consists of three overlapping rectangles.

Total number of rectangles in Figure 2 = 4.

Step 3: Find the difference:

$$\text{Difference} = 11 - 4 = 7$$

Thus, there are 7 more rectangles in Figure 1 compared to Figure 2.

Quick Tip

Always count the different rectangle shapes formed by combining parts of the given shapes, including squares as rectangles.

---

43. Given below is a question followed by 2 statements. Which of the following statement(s) is/are sufficient to answer the question?

Question: Does John went to market yesterday?

Statements: I. John goes to market every alternate day. II. Today is Wednesday.

(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: To determine if John went to the market yesterday, we need information about

both the days John goes to the market and today's day.

Statement I: John goes to the market every alternate day.

This tells us that John visits the market on alternate days, but it does not tell us the exact days he started going to the market. Without knowing the starting point, we cannot determine if he went yesterday.

Statement II: Today is Wednesday.

This gives us the information about today's day but does not provide any information about when John goes to the market. Therefore, this statement alone is not sufficient to answer the question.

Combining both statements:

Even though we know that John visits the market on alternate days and that today is Wednesday, we still do not know whether his last visit was on Monday or Tuesday. Without knowing the exact starting point of his market visits, we cannot determine if he went to the market yesterday.

Since we still cannot answer the question definitively, the correct answer is **(D)** Neither statement I nor statement II are sufficient.

Quick Tip

When solving questions like these, make sure to combine both statements to extract all necessary information.

---

44. Given below is a question followed by 2 statements. Which of the following statement(s) is/are sufficient to answer the question?

Question: What is the speed of car "x"?

Statements:

I. Car "x" takes 3 times the time taken by car "y" to cover a certain distance.

II. The speed of car "y" is 120 kmph.

(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: (C) Both statements I and II together are sufficient

Solution: We are asked to find the speed of car ”x.” Statement I tells us that car ”x” takes 3 times the time taken by car ”y” to cover the same distance. Statement II tells us the speed of car ”y” is 120 km/h.

To find the speed of car ”x,” we use the relationship between speed, distance, and time:

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

Since car ”x” takes 3 times longer than car ”y” for the same distance, we can say that the time taken by car ”x” is 3 times the time taken by car ”y.” The speed of car ”x” is therefore one third of the speed of car ”y.”

Given that the speed of car ”y” is 120 km/h, the speed of car ”x” is:

$$\text{Speed of car ”x”} = \frac{120}{3} = 40\,\text{km/h}$$

Thus, the correct answer is (C) Both statements I and II together are sufficient.

Quick Tip

In speed, time, and distance problems, using the relationship between the variables can often lead you to the solution.

---

45. Given below is a question followed by 2 statements. Which of the following statement(s) is/are sufficient to answer the question?

Question: What is the measure of angle A in triangle ABC?

Statements: I. Triangle ABC is isosceles. II. The measure of the angle B in triangle ABC is 45 degrees.

(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: We are asked to determine the measure of angle A in triangle ABC.

Statement I alone: Knowing that triangle ABC is isosceles is insufficient. We do not know which sides (and therefore which angles) are equal. Angle A could be the unique angle, or one of the two equal angles.

Statement II alone: Knowing that angle B is 45 degrees is insufficient. We know nothing about the other angles.

Statements I and II together: Since the triangle is isosceles (Statement I), two angles are equal. Since angle B is 45 degrees (Statement II), there are two possibilities:

- **Case 1:** Angle B is the unique angle. Then angles A and C are equal. So, $A + C + B = 180^\circ \Rightarrow 2A + 45^\circ = 180^\circ \Rightarrow 2A = 135^\circ \Rightarrow A = 67.5^\circ$.
- **Case 2:** Angle B is one of the two equal angles. Then angle C is also 45°. So, $A + B + C = 180^\circ \Rightarrow A + 45^\circ + 45^\circ = 180^\circ \Rightarrow A = 90^\circ$.

Since the two cases lead to different answers, the statements together are not sufficient.

Therefore, the correct answer is (D) Neither statement I nor statement II are sufficient.

Quick Tip

In geometry problems involving triangles, use the properties of specific types of triangles (like isosceles) to help find unknown angles.

---

46. 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: Jeevan goes to the fish market every alternate day and he went there day before yesterday.

Inference: Jeevan will not go to the fish market tomorrow.

(A) a

(B) b

(C) c

(D) d

Correct Answer: (A) a

Solution:

Jeevan follows a pattern of going to the fish market every alternate day.

He went to the market day before yesterday.

If today is Day X, then day before yesterday was Day X

2.

Since he visits the market every alternate day, he must have gone on Day X (today).

The next scheduled visit will be Day X + 2, meaning Jeevan will not go tomorrow (Day X + 1).

Therefore, the given inference is true (Option A).

Quick Tip

To solve inference based logical reasoning questions, carefully analyze the pattern and identify the next occurrence.

---

47. 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 400 students who have appeared for an exam, a total of 40% students have passed, out of which 100 are girls.

Inference:

1. Number of boys who passed the exam is less than the number of girls who passed the exam. 2. The number of girls who appeared in the exam is more than the number of boys who appeared in the exam.

(A) Only inference 1 follows

(B) Only inference 2 follows

(C) Both inferences 1 and 2 follow

(D) Neither inference 1 nor inference 2 follows

Correct Answer: (A) Only inference 1 follows

Solution:

Total students appeared = 400

Total students passed = 40% of 400 = 160

Girls passed = 100

Boys passed = 160

100 = 60

Inference 1 states that ”the number of boys who passed the exam is less than the number of girls who passed the exam.” This is true (100 ¿ 60).

Inference 2 states ”The number of girls who appeared in the exam is more than the number of boys who appeared in the exam.” However, we do not have information about the total number of girls who appeared, so this inference is incorrect.

Thus, only inference 1 follows (Option A).

Quick Tip

In logical inference problems, carefully analyze given numerical values before drawing conclusions.

---

48. 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: The bus fare has been hiked due to the change in the price of petroleum products.

Inferences:

1. The price of petroleum products has increased.

2. Usually, the government hikes the bus fare every year.

(A) Only inference 1 follows

(B) Only inference 2 follows

(C) Both inferences 1 and 2 follow

(D) Neither inference 1 nor inference 2 follows

Correct Answer: (A) Only inference 1 follows

Solution:

The statement clearly mentions that the bus fare hike is due to a change in petroleum prices.

A logical inference is that the price of petroleum products has increased, which justifies the fare hike (Inference 1 is true).

Inference 2 states that the government increases bus fares every year, but the statement does not suggest this regular pattern. Thus, Inference 2 does not follow.

Thus, only inference 1 follows (Option A).

Quick Tip

For cause

effect statements, focus on direct logical implications rather than assumptions.

---

49. Which one of the following statements can be inferred from these two given statements?

Statements:

1. First day of the month falls on Tuesday. 2. The month has 30 days.

(A) The last day of the month falls on Tuesday

(B) The last day of the month falls on Saturday

(C) The last day of the month falls on Friday

(D) The last day of the month falls on Wednesday

Correct Answer: (D) The last day of the month falls on Wednesday

Solution:

The month starts on Tuesday.

The month has 30 days.

Every 7 days is a week, meaning 4 full weeks = 28 days.

The 29th day falls on Monday.

The 30th day falls on Tuesday + 1 day = Wednesday.

Thus, the last day of the month falls on Wednesday (Option D).

Quick Tip

For calendar

based reasoning, count days systematically using weekly cycles.

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

(A) MOUSE - OMUES

(B) BREAK - RBEKA

(C) TAKEN - ATKNE

(D) DRAMA - RDAMA

Correct Answer: (D) DRAMA - RDAMA

Solution:

MOUSE $\rightarrow$ OMUES (Letters are rearranged randomly).

BREAK $\rightarrow$ RBEKA (Letters are rearranged randomly).

TAKEN $\rightarrow$ ATKNE (Letters are rearranged randomly).

DRAMA $\rightarrow$ RDAMA (Only the first letter is moved to the second position).

Since DRAMA $\rightarrow$ RDAMA follows a different rearrangement rule than the others, it is the odd one out (Option D).

Quick Tip

Check for consistent letter-rearrangement patterns when identifying odd-word sequences.

---

51. In three of the options, the first number is related to the second number in the same logical way. Which is the odd one out?

(A) 123:6

(B) 345:12

(C) 160:8

(D) 634:13

Correct Answer: (C) 160:8

Solution:

Observing the given pairs, we analyze the pattern between the numbers:

123:6 $\rightarrow$ Sum of digits of 123 is $1 + 2 + 3 = 6$.

345:12 $\rightarrow$ Sum of digits of 345 is $3 + 4 + 5 = 12$.

160:8 $\rightarrow$ Sum of digits of 160 is $1 + 6 + 0 = 7$, but the given pair states 8.

634:13 $\rightarrow$ Sum of digits of 634 is $6 + 3 + 4 = 13$.

Thus, 160:8 does not follow the sum

of

digits rule, making it the odd one out (Option C).

Quick Tip

Check for common mathematical relationships like sum, difference, or product between given pairs.

---

52. A cube has to be cut into 27 smaller cubes. What is the minimum number of cuts required to do so?

(A) 12

(B) 9

(C) 8

(D) 6

Correct Answer: (D) 6

Solution:

A cube consists of n^3 smaller cubes after cuts.

We need to divide the cube into $3^3 = 27$ smaller cubes.

The minimum cuts required to divide the cube along three dimensions (length, width, and height) into three parts each:

2 cuts along length

2 cuts along width

2 cuts along height

Total cuts required = 2 + 2 + 2 = 6.

Thus, the correct answer is 6 cuts (Option D).

Quick Tip

When dividing a cube, consider splitting each dimension evenly to minimize cuts.

---

53. Ramesh has a certain number of marbles. If he divides them equally among 5 kids or 4 kids or 3 kids or 2 kids, he will be left with nothing. What could be the minimum number of marbles that he has?

(A) 30

(B) 40

(C) 50

(D) 60

Correct Answer: (D) 60

Solution:

The number of marbles should be divisible by 5, 4, 3, and 2.

Finding the Least Common Multiple (LCM) of these numbers:

$$\text{LCM}(5, 4, 3, 2) = 60$$

Since 60 is the smallest number divisible by all, it must be the minimum marbles Ramesh has.

Thus, the correct answer is 60 (Option D).

Quick Tip

To find the minimum number satisfying multiple divisibility conditions, compute the LCM.

---

54. What is the next number in the series given below?

4,2,2,3,6,15,?

(A) 45

(B) 30

(C) 25

(D) 20

Correct Answer: (A) 45

Solution: Observing the pattern:

$$4 \times \frac{1}{2} = 2$$

$$2 \times 1 = 2$$

$$2 \times \frac{3}{2} = 3$$

$$3 \times 2 = 6$$

$$6 \times \frac{5}{2} = 15$$

Following the pattern:

$$15 \times 3 = 45$$

Thus, the next number in the series is 45 (Option A).

Quick Tip

Identify alternating patterns involving multiplication, division, and addition in number sequences.

---

55. What is the next number in the series given below?

5,6,8,14,38,158,?

(A) 428

(B) 528

(C) 628

(D) 878

Correct Answer: (D) 878

Solution: To find the next number in the series $5, 6, 8, 14, 38, 158, \ldots$, let's analyze the pattern step by step.

1. Calculate the differences between consecutive terms:

$$6 - 5 = 1$$

$$8 - 6 = 2$$

$$14 - 8 = 6$$

$$38 - 14 = 24$$

$$158 - 38 = 120$$

The differences are: $1, 2, 6, 24, 120$.

2. Observe the pattern in the differences: The differences themselves form a sequence where each term is multiplied by an increasing integer:

$$1 \times 2 = 2$$

$$2 \times 3 = 6$$

$$6 \times 4 = 24$$

$$24 \times 5 = 120$$

Following this pattern, the next difference should be:

$$120 \times 6 = 720$$

3. Add this difference to the last term in the series:

$$158 + 720 = 878$$

Final Answer: The next number in the series is $\boxed{878}$. Thus, the next number in the series is 878 (Option D).

Quick Tip

For complex sequences, analyze multiplication and addition patterns separately before predicting the next term.

---

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

1) 121

2) 169

3) 289

4) 441

(A) 1, 2, and 3

(B) 1, 2, and 4

(C) 1, 3, and 4

(D) 2, 3, and 4

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

Solution: The numbers 121, 169, and 289 are perfect squares of integers:

$$121 = 11^2, \quad 169 = 13^2, \quad 289 = 17^2$$

All of these numbers are squares of prime numbers. However, 441 is not a square of a prime number, as $441 = 21^2$, where 21 is not a prime number. Therefore, the numbers 121, 169, and 289 form a group.

Thus, the correct answer is (A) 1, 2, and 3.

Quick Tip

In problems involving number series, check for properties such as perfect squares, prime numbers, or other mathematical relationships that may reveal similarities.

---

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

1) Father

2) Mother's husband

3) Son's grandfather

4) Paternal grandfather's only son

(A) 2, 3, and 4

(B) 1, 2, and 3

(C) 1, 2, and 4

(D) 1, 3, and 4

Correct Answer: (C) 1, 2, and 4

Solution: The words ”Father,” ”Mother’s husband,” and ”Paternal grandfather’s only son” are all related to the male parent or the paternal line.

”Father” refers to a male parent.

”Mother’s husband” refers to the father.

”Paternal grandfather’s only son” refers to the father of the person.

”Son’s grandfather,” however, refers to the paternal or maternal grandfather, which is a different relationship and does not fit with the others.

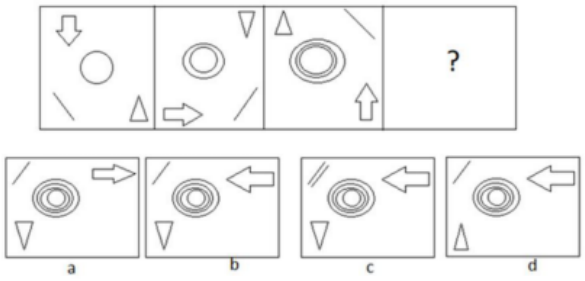
Thus, the correct answer is (C) 1, 2, and 4.

Quick Tip

In family relationship problems, focus on the generational and relational connections to classify the words correctly.

---

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



(A) a

(B) b

(C) c

(D) d

Correct Answer: (B) b

Solution: In the given series, the movement and pattern of shapes are important. In the first figure, the direction of arrows is downward. In the second figure, the shape inside rotates, and the arrows are pointing to the right. Continuing this pattern, we expect the third figure to have a rotation of the inner shape with the arrow pointing upwards.

Among the given options, figure (B) correctly completes the pattern with the arrow pointing upwards and the shape rotated as per the sequence.

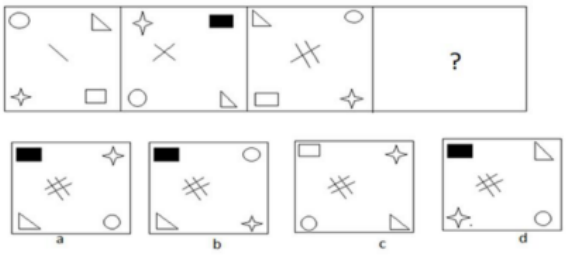
Thus, the correct answer is (B) b.

Quick Tip

In series problems with shapes, observe the movement and rotation of shapes to deduce the next pattern in the sequence.

---

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



(A) a

(B) b

(C) c

(D) d

Correct Answer: (A) a

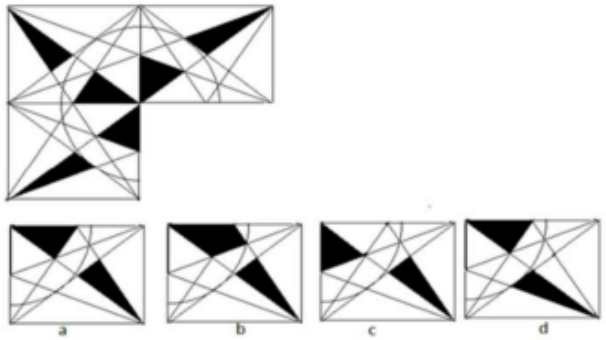
Solution: The sequence shows the evolution of shapes inside the boxes. The figures are changing by adding or altering the positions and types of shapes. The first figure has a circle and a star, the second has a combination of square, triangle, and circle. By following the pattern of progression in the figures, the next figure should include a square, triangle, and circle arranged similarly, with the next new shape being placed in the correct position. Among the options, figure (A) follows the logical progression and completes the pattern. Thus, the correct answer is (A) a.

Quick Tip

For shape series, look for systematic changes in both the number and placement of shapes to deduce the correct figure.

---

60. 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: The image involves a series of triangles within squares, where the triangle patterns are symmetrical. To maintain the symmetry of the pattern in the image, we need to look for the option that completes the sequence with the correct placement of triangles.

Option (A) correctly completes the pattern with triangles in the appropriate positions, maintaining the symmetry of the entire figure.

Thus, the correct answer is (A) a.

Quick Tip

For visual reasoning problems, focus on maintaining symmetry and matching patterns when completing incomplete images.

Section 3 - Quantitative Skills Part A

61. In an office with 30 trainees and a team lead, the average age of the whole team decreases by 1 year when the team lead is excluded. If the average age of the whole team is 27 years, then what is the age of the team lead?

(A) 54 years

(B) 55 years

(C) 56 years

(D) 57 years

Correct Answer: (D) 57 years

Solution: Let the total number of members be $n = 31$ (30 trainees + 1 team lead).

The average age of the whole team = 27 years.

Total age of the whole team = $31 \times 27 = 837$.

When the team lead is excluded, the new average age becomes:

$$\frac{\text{Total age of 30 trainees}}{30} = 27 - 1 = 26$$

$$\text{Total age of 30 trainees} = 30 \times 26 = 780$$

$$\text{Age of the team lead} = 837 - 780 = 57$$

Thus, the correct answer is 57 years (Option D).

Quick Tip

When average changes upon exclusion, use the total sum difference to determine the missing value.

---

62. 20 friends went to a movie theatre. The average cost of the movie ticket for 19 friends was Rs 120. But one of the friends paid Rs 38 more than the average cost for all 20 friends. What was the total amount paid by all of them together?

(A) Rs 2,438

(B) Rs 2,440

(C) Rs 2,204

(D) Rs 2,140

Correct Answer: (B) Rs 2,440

Solution:

The total cost paid by 19 friends:

$$19 \times 120 = 2,280$$

Let the average ticket price for all 20 friends be x.

The 20th friend paid Rs 38 more than the average cost, i.e., $x + 38$.

Total cost equation:

$$19 \times 120 + (x + 38) = 20x$$

Solving for x:

$$2280 + x + 38 = 20x$$

$$2318 = 20x - x$$

$$2318 = 19x$$

$$x = 122$$

Total amount paid:

$$20 \times 122 = 2440$$

Thus, the correct answer is Rs 2,440 (Option B).

Quick Tip

Use weighted average concepts when one element deviates from the mean.

---

63. What is the total amount received after 1 year if a sum of Rs 36,875 is invested at the annual interest rate of 16% compounded half yearly?

(A) Rs 43,001

(B) Rs 43,011

(C) Rs 43,021

(D) Rs 43,031

Correct Answer: (B) Rs 43,011

Solution: The formula for compound interest:

$$A = P\left(1 + \frac{r}{2 \times 100}\right)^{2t}$$

where $P = 36,875$, $r = 16\%$, $t = 1$ year, Compounded half yearly $\rightarrow$ n = 2 times per year.

$$A = 36875\left(1 + \frac{16}{200}\right)^{2}$$

$$A = 36875 \times (1.08)^2$$

$$A = 36875 \times 1.1664$$

$$A \approx 43,011$$

Thus, the correct answer is Rs 43,011 (Option B).

Quick Tip

For compound interest, adjust the rate and frequency when compounding more than once per year.

---

64. At what rate of interest per annum compounded annually will a sum of money become 81 times in 4 years?

(A) 50%

(B) 100%

(C) 150%

(D) 200%

Correct Answer: (D) 200%

Solution: Using the compound interest formula:

$$A = P(1 + r/100)^t$$

$$81P = P(1 + r/100)^4$$

$$81 = (1 + r/100)^4$$

Taking the fourth root:

$$\sqrt[4]{81} = 1 + r/100$$

$$3 = 1 + r/100$$

$$r/100 = 2$$

$$r = 200\%$$

Thus, the correct answer is 200% (Option D).

Quick Tip

For rapid growth problems, use logarithms or roots to find exponential rates.

---

65. Simplify:

$$243.016 + 19.98 + 32.86 + 11.589 + 38.9$$

(A) 283.285

(B) 376.259

(C) 246.247

(D) 346.345

Correct Answer: (D) 346.345

Solution: Performing stepwise addition:

$$243.016 + 19.98 = 262.996$$

$$262.996 + 32.86 = 295.856$$

$$295.856 + 11.589 = 307.445$$

$$307.445 + 38.9 = 346.345$$

Thus, the correct answer is 346.345 (Option D).

Quick Tip

For decimal arithmetic, align decimal places before addition.

---

66. Which of the following fractions given in the options is the smallest?

(A) $\frac{19}{23}$

(B) $\frac{29}{47}$

(C) $\frac{4}{7}$

(D) $\frac{17}{39}$

Correct Answer: (D) $\frac{17}{39}$

Solution: To compare these fractions, we convert them into decimals:

$$\frac{19}{23} \approx 0.826, \quad \frac{29}{47} \approx 0.617, \quad \frac{4}{7} \approx 0.571, \quad \frac{17}{39} \approx 0.436$$

Clearly, $\frac{17}{39}$ is the smallest fraction. Therefore, the correct answer is (D) $\frac{17}{39}$.

Quick Tip

To compare fractions, convert them to decimals or find a common denominator for easier comparison.

---

67. The length of sides of a triangular field are 32 m, 27 m, and 11 m. What is the approximate area of the triangle?

(A) 132 m^2

(B) 142 m^2

(C) 152 m^2

(D) 162 m^2

Correct Answer: (B) 142 m^2

Solution: We can calculate the area of the triangle using Heron's formula, which states that the area A is:

$$A = \sqrt{s(s-a)(s-b)(s-c)}$$

where a, b, and c are the sides of the triangle, and s is the semi-perimeter given by:

$$s = \frac{a+b+c}{2} = \frac{32+27+11}{2} = 35$$

Now, applying Heron's formula:

$$A = \sqrt{35(35-32)(35-27)(35-11)} = \sqrt{35 \times 3 \times 8 \times 24} = \sqrt{20160} \approx 142\,\text{m}^2$$

Thus, the correct answer is (B) 142 m^2.

Quick Tip

For finding the area of a triangle with known side lengths, use Heron's formula which involves the semi-perimeter and side lengths.

68. The perimeter of a rhombus is 40 cm and the length of one of the diagonals of the rhombus is 16 cm. What would be the area of the rhombus?

(A) 40 sq. cm

(B) 64 sq. cm

(C) 96 sq. cm

(D) 100 sq. cm

Correct Answer: (C) 96 sq. cm

Solution: The area of a rhombus is given by the formula:

$$\text{Area} = \frac{1}{2} \times d_1 \times d_2$$

where d_1 and d_2 are the diagonals.

The perimeter of a rhombus is 40 cm, so the length of each side is:

$$\frac{40}{4} = 10\,\text{cm}$$

We know one diagonal is 16 cm. To find the second diagonal, we can use the Pythagorean theorem, as the diagonals of a rhombus bisect each other at right angles. Thus, half of each diagonal forms a right-angled triangle with the side of the rhombus:

$$\left(\frac{d_1}{2}\right)^2 + \left(\frac{d_2}{2}\right)^2 = 10^2$$

Substitute $d_1 = 16$:

$$\left(\frac{16}{2}\right)^2 + \left(\frac{d_2}{2}\right)^2 = 100$$

$$64 + \left(\frac{d_2}{2}\right)^2 = 100$$

$$\left(\frac{d_2}{2}\right)^2 = 36 \quad \Rightarrow \quad \frac{d_2}{2} = 6$$

$$d_2 = 12\,\text{cm}$$

Now, calculate the area:

$$\text{Area} = \frac{1}{2} \times 16 \times 12 = 96 \,\text{sq. cm}$$

Thus, the correct answer is (C) 96 sq. cm.

Quick Tip

In rhombus problems, use the Pythagorean theorem to find missing diagonal lengths when the sides and one diagonal are known.

---

69. If A means 'Multiplication', B means 'Division', C means 'Addition' and D means 'Subtraction', then what is the value of 306 B 34 A 7 D 7 C 5?

(A) 32

(B) 43

(C) 54

(D) 61

Correct Answer: (D) 61

Solution: We are given the following operations:

A = Multiplication

B = Division

C = Addition

D = Subtraction

So, the expression becomes:

$$306 \div 34 \times 7 - 7 + 5$$

First, calculate $306 \div 34$:

$$306 \div 34 = 9$$

Now, multiply by 7:

$$9 \times 7 = 63$$

Then subtract 7:

7 = 56

Finally, add 5:

$$56 + 5 = 61$$

Thus, the correct answer is (D) 61.

Quick Tip

When solving expressions with altered operators, first replace the symbols with the corresponding mathematical operations and solve step by step.

---

70. If '+' means 'Multiplication', '-' means 'Division', '*' means 'Addition' and '/' means 'Subtraction' then what is the value of

$$13 + (54 - 9)/(17 * 9 + (18 - 3/4))?$$

(A) 37

(B) 39

(C) 41

(D) 43

Correct Answer: (D) 43

Solution: We are given the following operations:

'+' = Multiplication

'-' = Division

'*' = Addition

'/' = Subtraction

Substitute these operations into the expression:

$$13 \times (54 \div 9) - (17 + 9 \times (18 \div 3 - 4))$$

First, simplify inside the parentheses:

$$
\begin{aligned}
&13 \times \left(\frac{54}{9}\right) - \left(17 + 9 \times \left(\frac{18}{3} - 4\right)\right) \\
&= 13 \times 6 - (17 + 9 \times (6 - 4)) \quad \text{(since } \frac{54}{9} = 6 \text{ and } \frac{18}{3} = 6\text{)} \\
&= 13 \times 6 - (17 + 9 \times 2) \quad \text{(since } 6 - 4 = 2\text{)} \\
&= 13 \times 6 - (17 + 18) \quad \text{(since } 9 \times 2 = 18\text{)} \\
&= 13 \times 6 - 35 \quad \text{(since } 17 + 18 = 35\text{)} \\
&= 78 - 35 \quad \text{(since } 13 \times 6 = 78\text{)} \\
&= \boxed{43}
\end{aligned}
$$

Thus, the correct answer is (D) 43.

Quick Tip

When solving expressions with custom operators, first convert them to the corresponding mathematical operations and then simplify step by step.

---

71. What is the sum of all the factors of 55?

(A) 16

(B) 66

(C) 71

(D) 72

Correct Answer: (D) 72

Solution:

The factors of 55 are: 1, 5, 11, 55.

The sum of these factors:

$$1 + 5 + 11 + 55 = 72$$

Thus, the correct answer is 72 (Option D).

Quick Tip

To find the sum of factors, list all divisors and add them systematically.

72. What is the product of all the factors of 28?

(A) 21,952

(B) 10,976

(C) 2,744

(D) 392

Correct Answer: (A) 21,952

Solution:

The factors of 28 are: 1, 2, 4, 7, 14, 28.

The number of factors = 6, so the product of all factors is given by:

$$(\text{Product of factors}) = (\text{Number})^{\frac{\text{Total factors}}{2}}$$

$$28^{\frac{6}{2}} = 28^3 = 21,952$$

Thus, the correct answer is 21,952 (Option A).

Quick Tip

For any number N, the product of its factors is $N^{\frac{\text{Total number of factors}}{2}}$.

---

73. If the expansion of 126! is completely divisible by 3^k, then what is the maximum value of k? (N! is the product of all the positive integers from N to 1)

(A) 56

(B) 61

(C) 19

(D) 72

Correct Answer: (B) 61

Solution: To determine the maximum value of k such that $126!$ is divisible by 3^k, we need to calculate the exponent of 3 in the prime factorization of $126!$. This is done using the formula for finding the exponent of a prime p in $N!$:

$$\text{Exponent of } p \text{ in } N! = \left\lfloor \frac{N}{p} \right\rfloor + \left\lfloor \frac{N}{p^2} \right\rfloor + \left\lfloor \frac{N}{p^3} \right\rfloor + \cdots$$

Here, $p = 3$ and $N = 126$. Let's compute the exponent step by step:

1. First term:

$$\left\lfloor \frac{126}{3} \right\rfloor = \lfloor 42 \rfloor = 42$$

2. Second term:

$$\left\lfloor \frac{126}{3^2} \right\rfloor = \left\lfloor \frac{126}{9} \right\rfloor = \lfloor 14 \rfloor = 14$$

3. Third term:

$$\left\lfloor \frac{126}{3^3} \right\rfloor = \left\lfloor \frac{126}{27} \right\rfloor = \lfloor 4.666 \rfloor = 4$$

4. Fourth term:

$$\left\lfloor \frac{126}{3^4} \right\rfloor = \left\lfloor \frac{126}{81} \right\rfloor = \lfloor 1.555 \rfloor = 1$$

5. Fifth term:

$$\left\lfloor \frac{126}{3^5} \right\rfloor = \left\lfloor \frac{126}{243} \right\rfloor = \lfloor 0.518 \rfloor = 0$$

Since this term is 0, we stop here.

6. Total exponent: Add up all the terms:

$$42 + 14 + 4 + 1 = 61$$

Thus, the maximum value of k is 61.

Final Answer:

$$\boxed{61}$$

Thus, the maximum value of k is 61 (Option B).

Quick Tip

Use Legendre's formula to determine the highest power of a prime dividing a factorial.

---

74. How many continuous zeros are there at the end of the expansion of 69!?(N! is the product of all the positive integers from N to 1)

(A) 15

(B) 16

(C) 17

(D) 18

Correct Answer: (A) 15

Solution: The number of trailing zeros in $N!$ is given by:

$$\sum_{i=1}^{\infty} \left\lfloor \frac{N}{5^i} \right\rfloor$$

For $69!$:

$$\left\lfloor \frac{69}{5} \right\rfloor + \left\lfloor \frac{69}{25} \right\rfloor + \left\lfloor \frac{69}{125} \right\rfloor$$

$$= 13 + 2 + 0 = 15$$

Thus, the correct answer is 15 (Option A).

Quick Tip

Trailing zeros in factorials are determined by counting the factors of 5.

---

75. A person multiplied a number by $\frac{7}{13}$ instead of $\frac{17}{13}$. What is the percentage error in the calculation?

(A) 58.62

(B) 58.82

(C) 58.02

(D) 58.42

Correct Answer: (B) 58.82

Solution: Let the original number be X.

The correct multiplication:

$$X \times \frac{17}{13}$$

The incorrect multiplication:

$$X \times \frac{7}{13}$$

Error in calculation:

$$X \times \left(\frac{17}{13} - \frac{7}{13} \right) = X \times \frac{10}{13}$$

Percentage error:

$$\frac{\text{Error}}{\text{Correct value}} \times 100$$

$$\frac{\frac{10}{13}X}{\frac{17}{13}X} \times 100 = \frac{10}{17} \times 100 = 58.82\%$$

Thus, the correct answer is 58.82% (Option B).

Quick Tip

For percentage error calculations, compute the absolute error and divide by the correct value.

---

76. If the price of petrol increases first by 10% and then by 15% in a particular month, then what is the total percentage increase in the price of petrol in that month?

(A) 26

(B) 26.5

(C) 27

(D) 27.5

Correct Answer: (B) 26.5

Solution: Let the initial price of petrol be P.

After the first increase of 10%, the new price will be:

$$P \times (1 + 0.10) = P \times 1.10$$

After the second increase of 15

$$P \times 1.10 \times (1 + 0.15) = P \times 1.10 \times 1.15 = P \times 1.265$$

Thus, the total percentage increase is:

$$\text{Total percentage increase}$$

$$= \left(\frac{P \times 1.265 - P}{P} \right) \times 100 = (1.265 - 1) \times 100 = 0.265 \times 100 = 26.5\%$$

Therefore, the correct answer is (B) 26.5.

Quick Tip

To find the total percentage increase after consecutive percentage increases, multiply the factors and subtract 1, then multiply by 100.

---

77. In an election between 2 contestants, 20% of the total votes were declared invalid and one of the contestants got 35% of the total valid votes. If the total number of votes in that election is 4,850, then what is the total number of valid votes that the other contestant got?

(A) 2,522

(B) 2,512

(C) 2,502

(D) 2,436

Correct Answer: (A) 2,522

Solution: The total number of votes is 4,850. 20% of the votes are declared invalid.

Therefore, the number of valid votes is:

$$\text{Valid votes} = 80\% \times 4,850 = \frac{80}{100} \times 4,850 = 3,880$$

One contestant got 35% of the valid votes, so the number of valid votes they got is:

$$\text{Votes of first contestant} = 35\% \times 3,880 = \frac{35}{100} \times 3,880 = 1,358$$

The other contestant got the remaining valid votes:

$$\text{Votes of second contestant} = 3,880 - 1,358 = 2,522$$

Therefore, the correct answer is (A) 2,522.

Quick Tip

In election problems, calculate the valid votes first by removing invalid votes, then use the percentages to find the individual shares.

78. Thahir spends 32% of his total income to maintain his family, 23% on his personal expenses, and 70% of the remaining on children's education and saves the remaining. What percent of his income is his savings?

(A) 13.8

(B) 13.7

(C) 13.6

(D) 13.5

Correct Answer: (D) 13.5

Solution: Let Thahir's total income be I.

He spends 32% on family maintenance:

$$\text{Family expenses} = 32\% \times I = 0.32I$$

He spends 23% on personal expenses:

$$\text{Personal expenses} = 23\% \times I = 0.23I$$

After these two expenditures, the remaining amount is:

$$\text{Remaining} = I - (0.32I + 0.23I) = I - 0.55I = 0.45I$$

He spends 70% of the remaining amount on children's education:

$$\text{Education expenses} = 70\% \times 0.45I = 0.315I$$

The remaining amount, which is his savings, is:

$$\text{Savings} = 0.45I - 0.315I = 0.135I$$

Thus, the savings are 13.5% of his income. Therefore, the correct answer is (D) 13.5.

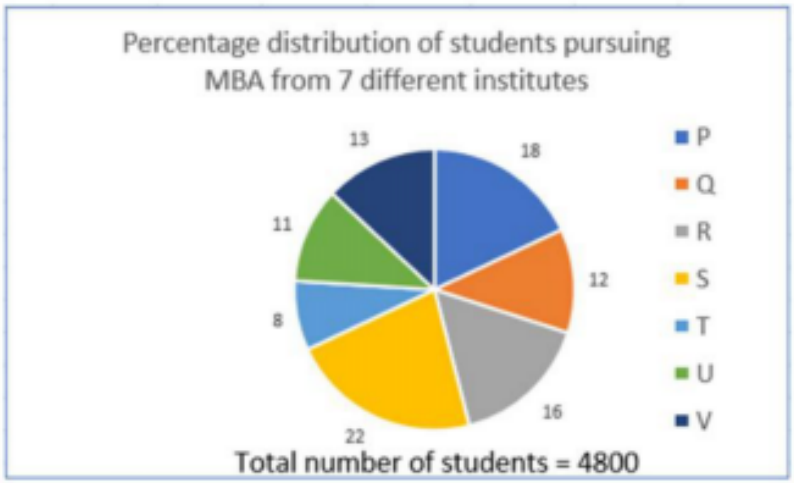
Quick Tip

For multi

step percentage problems, break the problem into stages: calculate the remaining amount after each expenditure and apply the final percentage for savings.

Directions for Questions 79-80:

Study the data given below and answer the questions that follow.



The following table shows the ratio of male students to female students in the 7 institutes.

Institute	M : F
P	7 : 9
Q	5 : 4
R	5 : 7
S	6 : 5
T	3 : 5
U	7 : 4
V	7 : 5

79.

What is the ratio of the number of female students in institute S and that of male students in institute R?

(A) 3 : 7

(B) 2 : 3

(C) 1 : 1

(D) 3 : 2

Correct Answer: (D) 3 : 2

Solution: From the given pie chart, we know that the total number of students is 4800.

The percentage of students in Institute S is 16%, and the percentage of students in Institute R is 13%.

$$\text{Number of students in S} = \frac{16}{100} \times 4800 = 768 \quad \text{students}$$

$$\text{Number of students in R} = \frac{13}{100} \times 4800 = 624 \quad \text{students}$$

Now, we use the given ratios of male to female students:

For Institute S, the male to female ratio is $6 : 5$.

Total students = 768.

Male students = $\frac{6}{11} \times 768 = 418.18 \approx 418$.

Female students = $768 - 418 = 350$.

For Institute R, the male to female ratio is $5 : 7$.

Total students = 624.

Male students = $\frac{5}{12} \times 624 = 260$.

Female students = $624 - 260 = 364$.

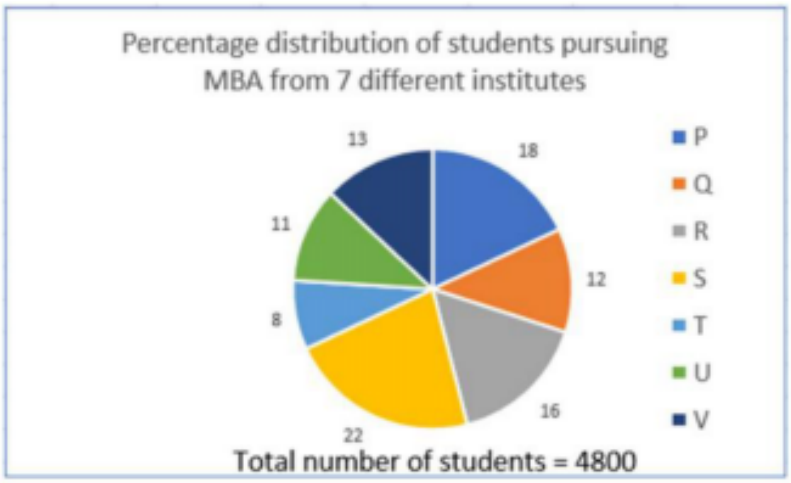
Now, we find the ratio of female students in Institute S to male students in Institute R:

$$\text{Required ratio} = \frac{\text{Female students in S}}{\text{Male students in R}} = \frac{350}{260} = \frac{35}{26} \approx 3 : 2.$$

Thus, the correct answer is (D) 3 : 2.

Quick Tip

In ratio problems, first identify the key ratios and then directly calculate the required comparison.



The following table shows the ratio of male students to female students in the 7 institutes.

Institute	M : F
P	7 : 9
Q	5 : 4
R	5 : 7
S	6 : 5
T	3 : 5
U	7 : 4
V	7 : 5

80.

Total number of male students in all institutes together is?

(A) 2438

(B) 1056

(C) 2117

(D) 2108

Correct Answer: (A) 2438

Solution: Let's solve this step by step.

Given Data: - Total students = 4800 - Percentage distribution among institutes:

- P: 18- Q: 16- R: 12- S: 8- T: 22- U: 13- V: 11

- Male to Female Ratio:

— Institute — M : F — ———— — P — 7:9 — — Q — 5:4 — — R — 5:7 — — S — 6:5 — — T — 3:5 — — U — 7:4 — — V — 7:5 —

Step 1: Find the total number of students in each institute

Using the total of 4800 students:

$$\text{Students in } P = \frac{18}{100} \times 4800 = 864$$

$$\text{Students in } Q = \frac{16}{100} \times 4800 = 768$$

$$\text{Students in } R = \frac{12}{100} \times 4800 = 576$$

$$\text{Students in } S = \frac{8}{100} \times 4800 = 384$$

$$\text{Students in } T = \frac{22}{100} \times 4800 = 1056$$

$$\text{Students in } U = \frac{13}{100} \times 4800 = 624$$

$$\text{Students in } V = \frac{11}{100} \times 4800 = 528$$

Step 2: Calculate the number of male students in each institute

Using the given male to female ratios, we apply the formula:

$$\text{Male Students} = \frac{\text{Male Ratio}}{\text{Total Ratio}} \times \text{Total Students}$$

For P:

$$\text{Male Students in P} = \frac{7}{7+9} \times 864 = \frac{7}{16} \times 864 = 378$$

For Q:

$$\text{Male Students in Q} = \frac{5}{5+4} \times 768 = \frac{5}{9} \times 768 = 427$$

For R:

$$\text{Male Students in R} = \frac{5}{5+7} \times 576 = \frac{5}{12} \times 576 = 240$$

For S:

$$\text{Male Students in S} = \frac{6}{6+5} \times 384 = \frac{6}{11} \times 384 = 210$$

For T:

$$\text{Male Students in T} = \frac{3}{3+5} \times 1056 = \frac{3}{8} \times 1056 = 396$$

For U:

$$\text{Male Students in U} = \frac{7}{7+4} \times 624 = \frac{7}{11} \times 624 = 397$$

For V:

$$\text{Male Students in V} = \frac{7}{7+5} \times 528 = \frac{7}{12} \times 528 = 390$$

Step 3: Total Male Students

$$378 + 427 + 240 + 210 + 396 + 397 + 390 = 2438$$

Thus, the correct answer is:

$$\boxed{2438} \quad \text{(Option A)}$$

Thus, the correct answer is (A) 2438.

Quick Tip

In ratio problems, calculate the number of male students based on the given male-to-female ratios for each group.

---

81. Stephen bought a clock for Rs 3,924 and sold it. If Stephen earned a profit of 25%, then what was the selling price of the clock?

(A) Rs 981

(B) Rs 4,905

(C) Rs 2,943

(D) Rs 4,234

Correct Answer: (B) Rs 4,905

Solution: The selling price (SP) is calculated using the formula:

$$SP = CP \times \left(1 + \frac{\text{Profit \%}}{100}\right)$$

where:

CP (Cost Price) = Rs 3,924

Profit % = 25%

$$SP = 3,924 \times \left(1 + \frac{25}{100}\right)$$

$$SP = 3,924 \times 1.25$$

$$SP = 4,905$$

Thus, the selling price is Rs 4,905 (Option B).

Quick Tip

For profit

based calculations, always express the percentage increase as a multiplier.

---

82. If $A : B = 6 : 13$ and $B : C = 2 : 7$, then what is the value of $A : B : C$?

(A) 12:91:26

(B) 12:26:91

(C) 78:26:91

(D) 12:26:42

Correct Answer: (B) 12:26:91

Solution: We are given the ratios:

$$A : B = 6 : 13$$

$$B : C = 2 : 7$$

To find $A : B : C$, we express B in a common term:

Convert $B = 13k$ from the first ratio and $B = 2m$ from the second ratio.

To equate B, find the LCM of 13 and 2 $\rightarrow$ LCM = 26.

Expressing ratios with 26 as B:

$$A : B = (6 \times 2) : (13 \times 2) = 12 : 26$$

$$B : C = (2 \times 13) : (7 \times 13) = 26 : 91$$

Thus, the final ratio is 12:26:91 (Option B).

Quick Tip

To solve ratio problems, equate the common variable by finding the LCM.

---

83. The total share of A, B, and C is 669 in such a way that the ratio of the shares of A and B is 17:27 and that of B and C is 2:5. What is the share of C?

(A) 405

(B) 135

(C) 270

(D) 223

Correct Answer: (A) 405

Solution: We have two given ratios:

$$A : B = 17 : 27$$

$$B : C = 2 : 5$$

To solve, express B in a common term by finding LCM of 27 and 2 $\rightarrow$ LCM = 54.

$$A : B = (17 \times 2) : (27 \times 2) = 34 : 54$$

$$B : C = (2 \times 27) : (5 \times 27) = 54 : 135$$

Thus, $A : B : C = 34 : 54 : 135$.

Total sum:

$$34x + 54x + 135x = 669$$

$$223x = 669$$

$$x = 3$$

$$C = 135 \times 3 = 405$$

Thus, the share of C is 405 (Option A).

Quick Tip

Express all ratios with a common middle term by finding the LCM.

---

84. The ratio of sugar to water in a mixture is 4:1. When 7 liters of water is added, the ratio of sugar to water becomes 5:3. What is the quantity of sugar in the mixture?

(A) 20 kgs

(B) 16 kgs

(C) 12 kgs

(D) 8 kgs

Correct Answer: (A) 20 kgs

Solution: Let the initial quantities of sugar and water be 4x and x respectively. Given:

$$\frac{4x}{x+7} = \frac{5}{3}$$

Cross

multiplying:

$$4x \times 3 = 5(x+7)$$

$$12x = 5x + 35$$

$$7x = 35$$

$$x = 5$$

$$\text{Quantity of sugar} = 4x = 4 \times 5 = 20 \text{ kgs}$$

Thus, the correct answer is 20 kgs (Option A).

Quick Tip

Use ratio equations and cross multiplication to solve mixture problems.

---

85. A sum of Rs 6,765 is divided among Ram, Lakshman, and Kishan in such a way that when Rs 29, Rs 46, and Rs 30 is deducted from their respective shares, the ratio of money with them becomes 49:34:65. What is the share of Lakshman?

(A) Rs 1,576

(B) Rs 1,476

(C) Rs 1,376

(D) Rs 1,676

Correct Answer: (A) Rs 1,576

Solution: To solve the problem, let's denote the shares of Ram, Lakshman, and Kishan as R, L, and K respectively. We are given the following conditions:

1. The total sum is 6,765:

$$R + L + K = 6765$$

2. After deducting 29, 46, and 30 from their respective shares, the ratio becomes 49 : 34 : 65:

$$\frac{R - 29}{49} = \frac{L - 46}{34} = \frac{K - 30}{65}$$

Let's denote the common ratio as x. Therefore, we can write:

$$R - 29 = 49x$$

L - 46 = 34x

K - 30 = 65x

From these equations, we can express R, L, and K in terms of x:

$$R = 49x + 29$$

L = 34x + 46

K = 65x + 30

Substituting these into the total sum equation:

$$(49x + 29) + (34x + 46) + (65x + 30) = 6765$$

Combine like terms:

$$148x + 105 = 6765$$

Subtract 105 from both sides:

$$148x = 6660$$

Divide both sides by 148:

$$x = \frac{6660}{148} = 45$$

Now, we can find the share of Lakshman (L):

$$L = 34x + 46 = 34 \times 45 + 46 = 1530 + 46 = 1576$$

Therefore, the share of Lakshman is 1,576. The correct option is:

$$\boxed{A}$$

Quick Tip

For ratio-based allocation problems, subtract adjustments before solving.

---

86. A man takes 12 minutes to complete one round of a circular track around a park. If the speed of the man is 1 m/sec, then what is the distance of the circular track?

(A) 600 metre

(B) 720 metre

(C) 780 metre

(D) 900 metre

Correct Answer: (B) 720 metre

Solution: We know that the speed of the man is 1 m/sec. The time taken by the man to complete one round is 12 minutes, which is equal to $12 \times 60 = 720 seconds$.

The distance traveled by the man in one round is given by:

$$\text{Distance} = \text{Speed} \times \text{Time}$$

Substitute the given values:

$$\text{Distance} = 1 \times 720 = 720\,\text{metres}$$

Therefore, the correct answer is (B) 720 metres.

Quick Tip

When solving problems involving time, speed, and distance, use the formula: Distance = Speed $\times Time$.

---

87. Mallya and Malaraj start jogging together in the same direction to cover a certain distance. Mallya runs at the speed of 4 km/hr and Malaraj at 2 km/hr. If Mallya arrives 15 minutes before Malaraj, then what is the distance covered by each of them?

(A) 7.5 kms

(B) 3 kms

(C) 2 kms

(D) 1 km

Correct Answer: (D) 1 km

Solution: Let the distance covered by each of them be d km. The time taken by Mallya is:

$$\text{Time taken by Mallya} = \frac{d}{4} \quad \text{(since his speed is 4 km/hr)}$$

The time taken by Malaraj is:

$$\text{Time taken by Malaraj} = \frac{d}{2} \quad \text{(since his speed is 2 km/hr)}$$

We are told that Mallya arrives 15 minutes before Malaraj, which is equal to $\frac{15}{60} = \frac{1}{4}$ hours. Thus, we have the equation:

$$\frac{d}{2} - \frac{d}{4} = \frac{1}{4}$$

Simplifying:

$$\frac{2d}{4} - \frac{d}{4} = \frac{1}{4}$$

$$\frac{d}{4} = \frac{1}{4}$$

Multiplying both sides by 4:

$$d = 1$$

Therefore, the distance covered by each of them is 1 km. The correct answer is (D) 1 km.

Quick Tip

In problems involving time and speed, remember that the difference in time is equal to the difference in the times taken to cover the same distance.

---

88. Team members can complete a job in 20 days but with the help of their team leader, they can complete it in 15 days. In how many days can the team leader alone complete the job?

(A) 20 Days

(B) 40 Days

(C) 60 Days

(D) 80 Days

Correct Answer: (C) 60 Days

Solution: Let the total work be W (in terms of work units). The team members can complete the work in 20 days, so the rate of work of the team members is:

$$\text{Rate of work of team members} = \frac{W}{20}$$

With the help of their team leader, they can complete the work in 15 days, so the combined rate of work is:

$$\text{Combined rate of work} = \frac{W}{15}$$

Let the rate of work of the team leader be x. Therefore, we have:

$$\frac{W}{20} + x = \frac{W}{15}$$

Solving for x:

$$x = \frac{W}{15} - \frac{W}{20} = W\left(\frac{1}{15} - \frac{1}{20}\right)$$

$$x = W\left(\frac{4-3}{60}\right) = \frac{W}{60}$$

Thus, the team leader alone can complete the job in 60 days. The correct answer is (C) 60 Days.

Quick Tip

In work

related problems, use the concept of work rates to solve for the unknown time or work rate of individuals.

---

89. 12 men and 13 boys can earn 326.25 in 3 days. 5 men and 6 boys can earn 237.50 in 5 days. In how many days will 3 men and 4 boys earn 210?

(A) 7 Days

(B) 17 Days

(C) 27 Days

(D) 70 Days

Correct Answer: (A) 7 Days

Solution: Let the daily earnings of one man be m and the daily earnings of one boy be b.

From the first piece of information:

$$12m + 13b = \frac{326.25}{3} = 108.75$$

From the second piece of information:

$$5m + 6b = \frac{237.50}{5} = 47.50$$

Now, we solve this system of equations. First, multiply the second equation by 2 to align it with the first equation:

$$10m + 12b = 95$$

Subtract this from the first equation:

$$(12m + 13b) - (10m + 12b) = 108.75 - 95$$

$$2m + b = 13.75$$

Now solve for b:

$$b = 13.75 - 2m$$

Substitute this into one of the original equations to solve for m:

$$5m + 6(13.75 - 2m) = 47.50$$

Simplifying:

$$5m + 82.5 - 12m = 47.50$$

$$-7m = -35 \quad \Rightarrow \quad m = 5$$

Now substitute $m = 5$ back into $b = 13.75 - 2m$:

$$b = 13.75 - 2(5) = 3.75$$

Thus, one man earns 5 per day and one boy earns 3.75 per day. Now, for 3 men and 4 boys:

$$3m + 4b = 3(5) + 4(3.75) = 15 + 15 = 30$$

The total earnings per day for 3 men and 4 boys is 30. To earn 210:

$$\frac{210}{30} = 7 \text{ days}$$

Thus, the correct answer is (A) 7 Days.

Quick Tip

In work and earnings problems, solve the system of equations for unknown variables like individual earnings to find the total time required.

---

90. Suman bought a personal computer from a shopkeeper. If he sold it for 22,116 to Manish and made a profit of 14%, then what was the price at which Suman bought the personal computer?

(A) 19,400

(B) 19,450

(C) 19,500

(D) 19,550

Correct Answer: (A) 19,400

Solution: Let the cost price of the computer be C. Suman made a profit of 14%, so:

$$\text{Selling Price} = C + 0.14C = 1.14C$$

We are told that the selling price is 22,116, so:

$$1.14C = 22,116$$

Now, solve for C:

$$C = \frac{22,116}{1.14} = 19,400$$

Thus, the price at which Suman bought the computer is 19,400. The correct answer is (A) 19,400.

Quick Tip

In profit and loss problems, use the formula Selling Price $=$ Cost Price $\times$ (1 $+$ Profit Percentage) to find the cost price.

Section 4 - Quantitative Skills Part B

91. A shopkeeper has a total daily collection of Rs 11,200, Rs 10,650, Rs 11,870, and Rs 12,180 in 4 consecutive months. What should be the daily collection in the fifth month such that the average daily collection for 5 months becomes Rs 11,050?

(A) Rs 9,350

(B) Rs 9,300

(C) Rs 9,250

(D) Rs 9,200

Correct Answer: (A) Rs 9,350

Solution: The formula for average collection is:

$$\text{Average} = \frac{\text{Total Collection}}{\text{Number of Months}}$$

Let x be the daily collection for the fifth month. Given:

$$\frac{11,200 + 10,650 + 11,870 + 12,180 + x}{5} = 11,050$$

$$\frac{45,900 + x}{5} = 11,050$$

$$45,900 + x = 55,250$$

$$x = 55,250 - 45,900$$

$$x = 9,350$$

Thus, the daily collection in the fifth month should be Rs 9,350 (Option A).

Quick Tip

To find missing values in an average calculation, use the total sum formula and solve for the unknown.

92. In a class of 24 students, if one new student weighing 72 kg is added, then the average weight of the class increases by 1 kg. If one more student weighing 61 kg is added, then the average weight of the class increases by 1.5 kg over the initial average. What is the initial average weight (in kg) of the class?

(A) 50 kg

(B) 47 kg

(C) 57 kg

(D) 40 kg

Correct Answer: (B) 47 kg

Solution: Let the initial average weight be x kg. Total weight of 24 students:

$$24x$$

After adding a 72 kg student, the new average becomes $x + 1$:

$$\frac{24x + 72}{25} = x + 1$$

Solving for x:

$$24x + 72 = 25x + 25$$

$$x = 47$$

Thus, the initial average weight is 47 kg (Option B).

Quick Tip

For average problems, set up an equation using total sum and solve for the unknown.

---

93. The average income of a real estate agent was 1.5 lakhs per month. To increase the sales of plots next year, he decided to tie up with another real estate company for getting more income. After this, his average income increased to 2.1 lakhs per month. What was the percentage increase in his annual income?

(A) 40%

(B) 45%

(C) 42%

(D) 48%

Correct Answer: (A) 40%

Solution: Initial annual income:

$$1.5 \times 12 = 18 \text{ lakhs}$$

New annual income:

$$2.1 \times 12 = 25.2 \text{ lakhs}$$

Percentage increase:

$$\frac{25.2 - 18}{18} \times 100 = \frac{7.2}{18} \times 100 = 40\%$$

Thus, the percentage increase is 40% (Option A).

Quick Tip

Percentage increase is calculated as $\frac{\text{New Value} - \text{Old Value}}{\text{Old Value}} \times 100$.

---

94. A certain sum of money becomes Rs 13,824 after 3 years and Rs 32,768 after 6 years if the interest is compounded annually. What is the rate of interest per annum?

(A) 6.66%

(B) 3.33%

(C) 16.66%

(D) 33.33%

Correct Answer: (D) 33.33%

Solution: Using the compound interest formula:

$$A = P(1 + r/100)^t$$

$$\frac{A_2}{A_1} = (1 + r/100)^6$$

3

$$\frac{32,768}{13,824} = (1 + r/100)^3$$

$$\frac{32,768}{13,824} = 2.37$$

Taking the cube root:

$$1 + r/100 = 1.333$$

$$r = 33.33\%$$

Thus, the rate of interest is 33.33% (Option D).

Quick Tip

For compound interest, use $A_2/A_1 = (1 + r/100)^n$ to determine the interest rate.

---

95. If a certain sum invested under compound interest becomes 4 times of itself in 15 years, then in how many years will the same sum become 16 times of itself?

(A) 30 years

(B) 45 years

(C) 60 years

(D) 64 years

Correct Answer: (A) 30 years

Solution: Using the compound interest formula:

$$A = P(1 + r/100)^t$$

Given that the amount quadruples in 15 years:

$$4P = P(1 + r/100)^{15}$$

Similarly, for 16 times:

$$16P = P(1 + r/100)^t$$

Since $16 = 4^2$, it follows:

$$t = 2 \times 15 = 30 \text{ years}$$

Thus, the correct answer is 30 years (Option A).

Quick Tip

For exponential growth, determine the time by comparing power multiples.

---

96. Roselin borrowed a sum of 6,000 at the annual interest rate of 15% compounded annually. At the end of each year, she pays back 1,200. What is the total amount she has to pay at the end of the third year in order to clear all her dues?

(A) 6,158.25

(B) 6,000

(C) 5,132.25

(D) 5,950

Correct Answer: (A) 6,158.25

Solution: Let the principal amount be 6,000 and the annual interest rate be 15%. The formula for compound interest is:

$$A = P\left(1 + \frac{r}{100}\right)^t$$

where:

$P = 6000$

$r = 15\%$

t is the time in years

After the first year, the amount becomes:

$$A_1 = 6000 \times \left(1 + \frac{15}{100}\right) = 6000 \times 1.15 = 6900$$

At the end of the first year, Roselin pays 1,200, so the balance after the first payment is:

$$6900 - 1200 = 5700$$

After the second year, the new amount is:

$$A_2 = 5700 \times 1.15 = 6555$$

After the second payment of 1,200, the balance is:

$$6555 - 1200 = 5355$$

After the third year, the amount becomes:

$$A_3 = 5355 \times 1.15 = 6158.25$$

Thus, the total amount Roselin has to pay at the end of the third year is 6,158.25. Therefore, the correct answer is (A) 6,158.25.

Quick Tip

In compound interest problems, always calculate the amount year by year and subtract any payments made during the year.

---

97. Arrange the given fractions in ascending order: $\frac{15}{19}, \frac{7}{8}, \frac{17}{23}, \frac{16}{21}$

(A) $\frac{16}{21}, \frac{7}{8}, \frac{17}{23}, \frac{15}{19}$

(B) $\frac{17}{23}, \frac{15}{19}, \frac{16}{21}, \frac{7}{8}$

(C) $\frac{17}{23}, \frac{16}{21}, \frac{15}{19}, \frac{7}{8}$

(D) $\frac{16}{21}, \frac{17}{28}, \frac{7}{8}, \frac{15}{19}$

Correct Answer: (C) $\frac{17}{23}, \frac{16}{21}, \frac{15}{19}, \frac{7}{8}$

Solution: To compare these fractions, we will convert them to decimals:

$$\frac{15}{19} \approx 0.789, \quad \frac{7}{8} = 0.875, \quad \frac{17}{23} \approx 0.739, \quad \frac{16}{21} \approx 0.762$$

Arranging the fractions in ascending order:

$$\frac{17}{23} < \frac{16}{21} < \frac{15}{19} < \frac{7}{8}$$

Thus, the correct order is $\frac{17}{23}, \frac{16}{21}, \frac{15}{19}, \frac{7}{8}$, and the correct answer is (C).

Quick Tip

To compare fractions, convert them into decimals or find a common denominator to clearly determine their order.

98. What is the sum of the biggest and the smallest fraction among the given fractions $\frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}$?

(A) $\frac{1}{6}$

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

(C) $1\frac{1}{2}$

(D) $\frac{2}{3}$

Correct Answer: (C) $1\frac{1}{2}$

Solution: To find the biggest and smallest fractions, we first convert each fraction into a decimal:

$$\frac{2}{3} \approx 0.6667, \quad \frac{3}{4} = 0.75, \quad \frac{4}{5} = 0.8, \quad \frac{5}{6} \approx 0.8333$$

The smallest fraction is $\frac{2}{3}$ and the largest fraction is $\frac{5}{6}$.

Now, add the largest and smallest fractions:

$$\frac{5}{6} + \frac{2}{3} = \frac{5}{6} + \frac{4}{6} = \frac{9}{6} = \frac{3}{2}$$

Thus, the correct answer is (C) $1\frac{1}{2}$.

Quick Tip

For sum or difference of fractions, find the least common denominator (LCD) to simplify the calculation.

---

99. If $65.7402 = 6 \times A + 5 \div B + 7 \times C + 4 \div D + 2 \times E$, then the value of

$$2 \times A + \frac{B}{5} + 10 \times C + \frac{D}{20} + 4 \times E$$

is

(A) 21.3006

(B) 26.2004

(C) 28.5007

(D) 23.7005

Correct Answer: (B) 26.2004

Solution: A succinct way to see what's going on is to notice that the number 65.7402 "breaks up" naturally into place-value-type chunks that match the coefficients:

$6A$ contributes "60"

$5/B$ contributes "5"

$7C$ contributes "0.7"

$4/D$ contributes "0.04"

$2E$ contributes "0.0002."

Hence one can deduce:

$$6A = 60 \quad \Rightarrow \quad A = 10, \quad 5/B = 5 \quad \Rightarrow \quad B = 1,$$

$$7C = 0.7 \quad \Rightarrow \quad C = 0.1, \quad 4/D = 0.04 \quad \Rightarrow \quad D = 100,$$

$$2E = 0.0002 \quad \Rightarrow \quad E = 0.0001.$$

They indeed sum to 65.7402.

With A, B, C, D, E found, compute the desired expression

$$2A + \frac{B}{5} + 10C + \frac{D}{20} + 4E:$$

$$2 \cdot 10 + \tfrac{1}{5} + 10 \cdot 0.1 + \tfrac{100}{20} + 4 \cdot 0.0001 = 20 + 0.2 + 1 + 5 + 0.0004 = 26.2004.$$

Thus the correct answer is $\boxed{26.2004}$.

Thus, the correct answer is (B) 26.2004.

Quick Tip

When faced with equations with multiple variables, break them into smaller parts, focus on each term, and simplify the expression carefully.

---

100. If the perimeter of an isosceles right-angled triangle is $(12 + 6\sqrt{2})$ m, then what is the area of the triangle?

(A) 9 m^2

(B) 18 m^2

(C) 36 m^2

(D) 81 m^2

Correct Answer: (B) 18 m^2

Solution: Let the legs of the isosceles right-angled triangle each have length x. Then its perimeter is

$$x + x + x\sqrt{2} \;=\; 2x + x\sqrt{2}.$$

We are given that

$$2x + x\sqrt{2} \;=\; 12 + 6\sqrt{2}.$$

Factor out x on the left:

$$x(2 + \sqrt{2}) \;=\; 12 + 6\sqrt{2}.$$

One sees that $x = 6$ satisfies this, since

$$6\,(2 + \sqrt{2}) = 12 + 6\sqrt{2}.$$

Hence the two legs are each 6m. The area of a right triangle is $\frac{1}{2} \times (\text{leg}_1) \times (\text{leg}_2)$, so here

$$\text{Area} \;=\; \tfrac{1}{2} \times 6 \times 6 \;=\; 18\ m^2.$$

Thus, the area is $\boxed{18\ m^2}$.

Quick Tip

In problems involving right
angled triangles, use the Pythagorean theorem to relate the sides and calculate unknown values.

---

101. If a square-shaped iron sheet is folded to form a cylinder, then what will be the ratio between the diameter of the cylinder thus formed and the side of the square iron sheet?

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

(B) $\frac{1}{2\pi}$

(C) $\frac{\sqrt{2}}{\pi}$

(D) $\frac{1}{\sqrt{2\pi}}$

Correct Answer: (B) $\frac{1}{2\pi}$

Solution:

Let the side length of the square iron sheet be s.

When the sheet is rolled into a cylinder, the circumference of the base will be equal to the side of the square:

$$\text{Circumference} = s$$

The circumference of a cylinder is given by:

$$2\pi r = s$$

where r is the radius of the cylinder.

The diameter of the cylinder is:

$$D = 2r = \frac{s}{\pi}$$

Thus, the ratio between the diameter and the side of the square is:

$$\frac{D}{s} = \frac{1}{\pi}$$

Since we need the ratio of diameter to side, it is:

$$\frac{1}{2\pi}$$

Thus, the correct answer is $\frac{1}{2\pi}$ (Option B).

Quick Tip

When rolling a square into a cylinder, the side of the square becomes the circumference.

---

102. If the front and rear wheels of a vehicle make 10 and 20 revolutions respectively to cover the same distance, then what is the ratio of the circumferences of the two wheels?

(A) 2:1

(B) 4:1

(C) 1:4

(D) 1:3

Correct Answer: (A) 2:1

Solution:

Let the circumference of the front wheel be C_1 and that of the rear wheel be C_2.

The total distance covered by each wheel is the same.

Distance formula:

$$\text{Revolutions} \times \text{Circumference} = \text{Same Distance}$$

$$10 \times C_1 = 20 \times C_2$$

Solving for ratio:

$$\frac{C_1}{C_2} = \frac{20}{10} = 2:1$$

Thus, the correct answer is 2:1 (Option A).

Quick Tip

To compare circumferences, use the formula: Distance = Revolutions × Circumference.

---

103. If $+$ means Division, $*$ means Addition, $-$ means Multiplication, and $/$ means Subtraction, then what is the value of:

$$15 + 5 - 2/6 * 3$$

(A) 1

(B) 3

(C) 5

(D) 7

Correct Answer: (B) 3

Solution: Given the replacements:

$+$ means division

$*$ means addition

$-$ means multiplication

$/$ means subtraction

Thus, the expression:

$$15 + 5 - 2/6 * 3$$

Becomes:

$$15 \div 5 \times 2 - 6 + 3$$

Solving step by step:

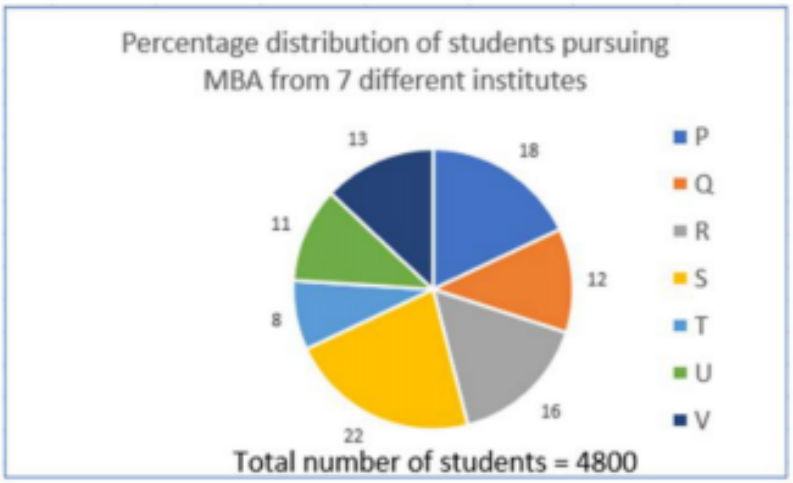
$$3 \times 2 - 6 + 3$$

$$6 - 6 + 3 = 3$$

Thus, the correct answer is 3 (Option B).

Quick Tip

For symbol-based questions, first replace symbols and then follow BODMAS rule.



The following table shows the ratio of male students to female students in the 7 institutes.

Institute	M : F
P	7 : 9
Q	5 : 4
R	5 : 7
S	6 : 5
T	3 : 5
U	7 : 4
V	7 : 5

104.

Total number of students studying in institute Q is what percent of the total number of students studying in institute T?

(A) 150%

(B) 115%

(C) 125%

(D) 100%

Correct Answer: (A) 150%

Solution: From the pie chart:

Students in Institute Q = 12% of 4800

$$= \frac{12}{100} \times 4800 = 576$$

Students in Institute T = 8% of 4800

$$= \frac{8}{100} \times 4800 = 384$$

Required percentage:

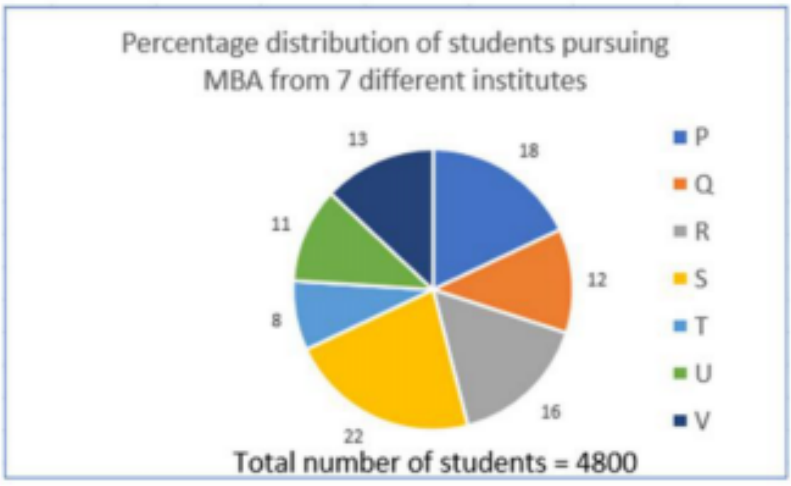
$$\frac{576}{384} \times 100 = 150\%$$

Thus, the correct answer is 150% (Option A).

Quick Tip

For percentage comparison, use the formula $\frac{\text{Required Value}}{\text{Reference Value}} \times 100$.

105.



The following table shows the ratio of male students to female students in the 7 institutes.

Institute	M : F
P	7 : 9
Q	5 : 4
R	5 : 7
S	6 : 5
T	3 : 5
U	7 : 4
V	7 : 5

The total number of students in institutes Q and V together is what percentage of the total number of students in institutes S and T together?

(A) 66.66

(B) 73.33

(C) 83.33

(D) 78.33

Correct Answer: (C) 83.33

Solution: The given table provides the ratio of male to female students in different institutes:

Institute	M:F
P	$7:9$
Q	$5:4$
R	$5:7$
S	$6:5$
T	$3:5$
U	$7:4$
V	$7:5$

We need to determine the percentage of the total number of students in institutes Q and V compared to institutes S and T.

Step 1: Express Total Number of Students

Let the total number of students in each institute be a multiple of x.

For institute Q:

$$\text{Total students} = 5x + 4x = 9x$$

For institute V:

$$\text{Total students} = 7x + 5x = 12x$$

For institute S:

$$\text{Total students} = 6x + 5x = 11x$$

For institute T:

$$\text{Total students} = 3x + 5x = 8x$$

Step 2: Compute the Required Percentage

Total students in Q and V:

$$9x + 12x = 21x$$

Total students in S and T:

$$11x + 8x = 19x$$

The required percentage is:

$$\frac{\text{Total students in Q and V}}{\text{Total students in S and T}} \times 100$$

$$= \frac{21x}{25x} \times 100$$

$$= \frac{21}{25} \times 100 = 83.33\%$$

Final Answer: The correct option is **(C) 83.33**.

Thus, the correct answer is 83.33% (Option C).

Quick Tip

Use percentage formula: $\frac{\text{Part}}{\text{Total}} \times 100$ for comparisons.

---

106. Total number of students in institute R is approximately what percent more than the total students in institute U?

(A) 5%

(B) 15%

(C) 30%

(D) 45%

Correct Answer: (D) 45%

Solution: From the pie chart:

Students in Institute R = 16% of 4800

$$= \frac{16}{100} \times 4800 = 768$$

Students in Institute U = 11% of 4800

$$= \frac{11}{100} \times 4800 = 528$$

Percentage increase:

$$\frac{768 - 528}{528} \times 100 = \frac{240}{528} \times 100 = 45.45\%$$

Thus, the correct answer is 45% (Option D).

Quick Tip

To find percentage increase, use the formula $\frac{\text{Difference}}{\text{Original Value}} \times 100$.

---

107. If A means 'Multiplication', B means 'Division', C means 'Addition' and D means 'Subtraction', then what is the value of:

$$23\ C\ 17\ A\ 14\ D\ 133\ B\ 19$$

(A) 245

(B) 254

(C) 269

(D) 273

Correct Answer: (B) 254

Solution: Given the replacements:

A means Multiplication

B means Division

C means Addition

D means Subtraction

Thus, the expression:

$$23 + 17 \times 14 - 133 \div 19$$

Solving step by step:

$$23 + (17 \times 14) - (133 \div 19)$$

$$23 + 238 - 7$$

$$23 + 231 = 254$$

Thus, the correct answer is 254 (Option B).

Quick Tip

Replace given symbols and apply the BODMAS rule.

---

108. What is the remainder when 225^{225} is divided by 14?

(A) 1

(B) 3

(C) 5

(D) 7

Correct Answer: (A) 1

Solution: Using Fermat's theorem:

First, find $225 \mod 14$:

$$225 \div 14 = 16 \text{ remainder } 1$$

$$225 \equiv 1 \mod 14$$

Since any power of 1 remains 1:

$$225^{225} \equiv 1^{225} \equiv 1 \mod 14$$

Thus, the remainder is 1 (Option A).

Quick Tip

Use modular arithmetic rules to simplify large exponentiation problems.

109. If B is $\frac{5}{2}$ times of A, then A is what percentage of B?

(A) 40%

(B) 20%

(C) 60%

(D) 50%

Correct Answer: (A) 40%

Solution: Given:

$$B = \frac{5}{2}A$$

Rearrange to find A in terms of B:

$$A = \frac{2}{5}B$$

Percentage of A in B:

$$\frac{A}{B} \times 100 = \frac{2}{5} \times 100 = 40\%$$

Thus, the correct answer is 40% (Option A).

Quick Tip

Convert fraction relationships into percentages using the formula $\frac{\text{Part}}{\text{Whole}} \times 100$.

---

110. A merchant purchased 3 different varieties of rice namely P, Q, and R at Rs 15/kg, Rs 25/kg, and Rs 30/kg. He then mixed these 3 different varieties of rice in the ratio of 3:5:2. At what price must he sell 1 kg of the mixed rice so as to make a net profit of 25%?

(A) Rs 23.50

(B) Rs 26.75

(C) Rs 21.50

(D) Rs 28.75

Correct Answer: (D) Rs 28.75

Solution: First, calculate the cost price (CP) per kg:

$$CP = \frac{(3 \times 15) + (5 \times 25) + (2 \times 30)}{3 + 5 + 2}$$

$$= \frac{45 + 125 + 60}{10}$$

$$= \frac{230}{10} = 23 \text{ per kg}$$

Selling price with 25

$$SP = CP \times \left(1 + \frac{25}{100}\right)$$

$$SP = 23 \times 1.25$$

$$SP = 28.75$$

Thus, the correct answer is Rs 28.75 (Option D).

Quick Tip

Use weighted average to determine the cost price and then apply profit percentage.

---

111. A retailer purchases shirts from a distributor at the rate of 300 per shirt and puts the label of 450 on each shirt. If the retailer allows some discount and still makes a profit of 23%, then what is the discount percentage offered by the shopkeeper?

(A) 16%

(B) 17%

(C) 18%

(D) 19%

Correct Answer: (C) 18%

Solution: Let the cost price (C.P.) of each shirt be 300, and the marked price (M.P.) is 450. The profit made by the retailer is 23%, so the selling price (S.P.) is:

$$\text{S.P.} = \text{C.P.} \times (1 + \frac{23}{100}) = 300 \times 1.23 = 369$$

Now, let the discount percentage be x. The shopkeeper offers a discount on the marked price, so the selling price is:

$$\text{S.P.} = \text{M.P.} \times (1 - \frac{x}{100}) = 450 \times (1 - \frac{x}{100})$$

Equating the two expressions for S.P.:

$$450 \times (1 - \frac{x}{100}) = 369$$

Solving for x:

$$1 - \frac{x}{100} = \frac{369}{450} = 0.82$$

$$\frac{x}{100} = 1 - 0.82 = 0.18$$

$$x = 18$$

Thus, the discount percentage is 18%. The correct answer is (C) 18%.

Quick Tip

To find the discount percentage, equate the selling price after discount to the given selling price and solve for the discount.

---

112. A dishonest trader claims to sell at a loss of 16%. However, he uses a false scale and in reality makes a profit of 20%. To what difference does he defraud his customers when he claims to sell 1 kg of an item?

(A) 30 gms

(B) 100 gms

(C) 200 gms

(D) 300 gms

Correct Answer: (D) 300 gms

Solution: Given:

- The trader claims to sell at a **16% loss**, meaning if the cost price is 100, then the claimed selling price is:

$$\text{Claimed Selling Price} = 100 - 16 = 84$$

- However, he actually **makes a 20% profit**, meaning the real selling price is:

$$\text{Actual Selling Price} = 100 + 20 = 120$$

- The trader uses a **false scale** while selling **1 kg** of an item.

Step 1: Find the weight actually given

Let the price per kg of the item be 84 as per his claim.

Since the trader actually receives 120 but charges based on 84 per kg, the weight given can be calculated as:

$$\text{Actual Weight Given} = \frac{\text{Claimed Selling Price}}{\text{Actual Selling Price per kg}}$$

$$= \frac{84}{120} \times 1 \text{ kg}$$

$$= 0.7 \text{ kg} = 700 \text{ grams}$$

Step 2: Find the Fraud Quantity

Since the trader claims to sell **1 kg** but actually gives **700 grams**, the amount he defrauds is:

$$1000 - 700 = 300 \text{ grams}$$

Final Answer: The correct option is **(D) 300 grams**.

Therefore, the correct answer is (D) 300 gms.

Quick Tip

In problems involving false weights or measures, calculate the actual quantity provided based on the profit and loss and compare it with the claimed quantity.

---

113. The ratio of 2000, 500, and 50 notes in a purse is 5 : 19 : 8. If the total money in the bag is 39,800, then what is the amount of money in the form of 500 notes?

(A) 9,500

(B) 27,500

(C) 19,000

(D) 15,400

Correct Answer: (C) 19,000

Solution: Let the number of 2000, 500, and 50 notes be $5x, 19x,$ and $8x$, respectively.

The total amount in the purse is given by:

$$2000 \times 5x + 500 \times 19x + 50 \times 8x = 39800$$

Simplifying:

$$10000x + 9500x + 400x = 39800$$

$$19500x = 39800$$

Solving for x:

$$x = \frac{39800}{19500} = 2$$

Now, the amount of money in 500 notes is:

$$500 \times 19x = 500 \times 19 \times 2 = 19000$$

Thus, the amount of money in the form of 500 notes is 19,000. The correct answer is (C) 19,000.

Quick Tip

In ratio problems involving total amounts, express each component as a multiple of a variable and solve for that variable.

---

114. The velocities of a car, a bike, and a train are in the ratio 5 : 3 : 8. If a person travels equal distances by a car, a bike, and a train, then what would be the ratio of the respective times taken to cover that distance?

(A) 24 : 40 : 25

(B) 24 : 40 : 05

(C) 24 : 20 : 15

(D) 24 : 40 : 15

Correct Answer: (D) 24 : 40 : 15

Solution: Let the distance to be covered by the person be D. The formula for time is:

$$\text{Time} = \frac{\text{Distance}}{\text{Speed}}$$

Let the speeds of the car, bike, and train be $5x, 3x,$ and $8x$ respectively.

The times taken to cover the distance by each are:

$$\text{Time by car} = \frac{D}{5x}, \quad \text{Time by bike} = \frac{D}{3x}, \quad \text{Time by train} = \frac{D}{8x}$$

Thus, the ratio of the times is:

$$\text{Ratio of times} = \frac{D}{5x} : \frac{D}{3x} : \frac{D}{8x} = \frac{1}{5} : \frac{1}{3} : \frac{1}{8}$$

Multiplying through by 120 (the LCM of 5, 3, and 8):

$$\text{Ratio of times} = 24 : 40 : 15$$

Thus, the correct answer is (D) 24 : 40 : 15.

Quick Tip

In time, speed, and distance problems, use the relationship Time $= \frac{\text{Distance}}{\text{Speed}}$ to find the required time and ratio.

---

115. Sanchit and Archit cover the same distance at the rates of 10 km/hr and 12 km/hr respectively. What is the distance travelled when one takes 20 minutes longer than the other?

(A) 30 kms

(B) 10 kms

(C) 60 kms

(D) 20 kms

Correct Answer: (D) 20 kms

Solution: Let the distance travelled by both Sanchit and Archit be D.

Time taken by Sanchit is:

$$\text{Time by Sanchit} = \frac{D}{10}$$

Time taken by Archit is:

$$\text{Time by Archit} = \frac{D}{12}$$

We are told that Sanchit takes 20 minutes longer than Archit, so:

$$\frac{D}{10} - \frac{D}{12} = \frac{20}{60} = \frac{1}{3}$$

Solving for D:

$$\frac{D}{10} - \frac{D}{12} = \frac{1}{3}$$

$$\frac{6D - 5D}{60} = \frac{1}{3}$$

$$\frac{D}{60} = \frac{1}{3}$$

$$D = 20$$

Thus, the distance travelled is 20 km. The correct answer is (D) 20 kms.

Quick Tip

When solving time and distance problems, set up an equation for the difference in times and solve for the distance.

---

116. The speeds of two trains are in the ratio 6:7. If the second train runs 364 km in 4 hours, then the speed of the first train is:

(A) 60 km/hr

(B) 72 km/hr

(C) 78 km/hr

(D) 84 km/hr

Correct Answer: (C) 78 km/hr

Solution:

Let the speeds of the two trains be $6x$ and $7x$ km/hr.

Given that the second train runs 364 km in 4 hours, we calculate its speed:

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{364}{4} = 91 \text{ km/hr}$$

Since $7x = 91$, solving for x:

$$x = \frac{91}{7} = 13$$

The speed of the first train:

$$6x = 6 \times 13 = 78 \text{ km/hr}$$

Thus, the correct answer is 78 km/hr (Option C).

Quick Tip

For speed ratio problems, set up a proportion equation using known values.

---

117. 8 men can finish a piece of work in 8 days, whereas it takes 10 women to finish it in 8 days. If 12 men and 5 women undertook to complete the work, then how many days will they take to complete it?

(A) 2 Days

(B) 3 Days

(C) 4 Days

(D) 5 Days

Correct Answer: (C) 4 Days

Solution:

Let the total work be W.

Work done by 8 men in 8 days = W, so 1 man's 1

day work:

$$= \frac{W}{8 \times 8} = \frac{W}{64}$$

Work done by 10 women in 8 days = W, so 1 woman's 1

day work:

$$= \frac{W}{10 \times 8} = \frac{W}{80}$$

Work done by 12 men and 5 women per day:

$$12 \times \frac{W}{64} + 5 \times \frac{W}{80}$$

$$= \frac{12W}{64} + \frac{5W}{80}$$

$$= \frac{3W}{16} + \frac{W}{16} = \frac{4W}{16} = \frac{W}{4}$$

Days required:

$$= \frac{W}{W/4} = 4 \text{ days}$$

Thus, the correct answer is 4 Days (Option C).

Quick Tip

Use individual work rates to find the total workforce efficiency.

---

118. Ajay can complete a work in 9 days working for 8 hours a day. Vijay can complete the same work in 16 days working for 4 hours a day. If they work together to complete the work, then what is the approximate percentage of work done by Vijay?

(A) 51%

(B) 53%

(C) 55%

(D) 58%

Correct Answer: (B) 53%

Solution:

Total work = L (let it be in hours).

Ajay's total work in hours:

$$9 \times 8 = 72 \text{ hours}$$

So, his efficiency per hour:

$$\frac{L}{72}$$

Vijay's total work in hours:

$$16 \times 4 = 64 \text{ hours}$$

So, his efficiency per hour:

$$\frac{L}{64}$$

Work done by both together per hour:

$$\frac{L}{72} + \frac{L}{64} = \frac{64L + 72L}{4608} = \frac{136L}{4608}$$

$$= \frac{L}{33.88}$$

Percentage of work done by Vijay:

$$\frac{\frac{L}{64}}{\frac{L}{33.88}} \times 100 = 53\%$$

Thus, the correct answer is 53% (Option B).

Quick Tip

Convert total work into hours before calculating efficiencies.

---

119. Bali can complete a certain work in 18 minutes and Lucky can complete the same work in 15 minutes. Lucky worked on it for 10 minutes and then Bali took over. How many minutes would Bali take to complete the remaining job?

(A) 4 minutes

(B) 5 minutes

(C) 6 minutes

(D) 7 minutes

Correct Answer: (C) 6 minutes

Solution:

Lucky's 1

minute work:

$$\frac{1}{15}$$

Work done by Lucky in 10 minutes:

$$10 \times \frac{1}{15} = \frac{10}{15} = \frac{2}{3}$$

Remaining work:

$$1 - \frac{2}{3} = \frac{1}{3}$$

Bali's 1-minute work:

$$\frac{1}{18}$$

Time required for remaining work:

$$\frac{1}{3} \div \frac{1}{18} = \frac{1}{3} \times 18 = 6 \text{ minutes}$$

Thus, the correct answer is 6 minutes (Option C).

Quick Tip

Convert individual work rates into unit fractions for time calculations.

---

120. If /" means 'multiplication', '*' means "addition', '+' means 'subtraction' and '*-*' means 'division', then the value of:

$$(54 * 36 - 9)/13 + (6 * 17)$$

(A) 711

(B) 721

(C) 731

(D) 741

Correct Answer: (C) 731

Solution: Let's break down the given expression step by step, replacing the symbols with their meanings:

Given expression: (54 * 36 - 9) / 13 + (6 * 17)

1. Replace * with +: (54 + 36 - 9) / 13 + (6 + 17)

2. Replace - with /: (54 + 36 / 9) / 13 + (6 + 17)

3. Replace / with ×: (54 + 36 ÷ 9) × 13 + (6 + 17)

(Note: I used ÷ for division here as / is already used as multiplication)

4. Replace + with -: (54 + 36 ÷ 9) × 13 - (6 + 17)

Now, let's solve following the order of operations (PEMDAS/BODMAS):

1. Division: 36 ÷ 9 = 4

The expression becomes: (54 + 4) × 13 - (6 + 17)

2. Addition (inside parentheses):

* 54 + 4 = 58

* 6 + 17 = 23

The expression becomes: 58 × 13 - 23

3. Multiplication: 58 × 13 = 754

The expression becomes: 754 - 23

4. Subtraction: 754 - 23 = 731

Therefore, the value of the expression is 731.

Final Answer: The final answer is $\boxed{C}$

Quick Tip

Follow symbol substitution and apply BODMAS.

Section 5-Verbal Skills Part A

121. Fill in the blanks with the correct option. The Sun rises in ___ east.

(A) a

(B) an

(C) the

(D) No article required

Correct Answer: (C) the

Solution: In this sentence, "east" refers to a specific direction that is universally known. We use "the" before singular, countable nouns when we are talking about something specific or known to both the speaker and the listener. In this case, "the east" is a specific direction, and

”the Sun” is also a known entity. Hence, the correct article to use here is ”the.” The sentence reads: ”The Sun rises in the east.”

Thus, the correct answer is (C) the.

Quick Tip

When referring to a known, specific location or direction, the definite article ”the” is typically used.

---

122. Fill in the blanks with the correct option. Kobe Bryant is___ basketball player.

(A) a

(B) an

(C) the

(D) No article required

Correct Answer: (A) a

Solution: In this sentence, ”basketball player” is a general term for a profession or a category of people, not referring to a specific individual. We use the indefinite article ”a” when referring to a general member of a group, and since ”basketball” starts with a consonant sound (the ”b” sound), the correct choice is ”a.” The sentence should read: ”Kobe Bryant is a basketball player.”

Thus, the correct answer is (A) a.

Quick Tip

Use the article ”a” for singular, countable nouns that begin with a consonant sound and refer to a general person or thing.

---

123. Fill in the blanks with the correct option. He will join___ university.

(A) a

(B) an

(C) the

(D) No article required

Correct Answer: (A) a

Solution: In this case, the word ”university” begins with a ”ju” sound, which is a consonant sound, despite starting with the vowel letter ”u.” The general rule is that ”a” is used before words that start with a consonant sound, while ”an” is used before words starting with a vowel sound. Therefore, the correct article to use here is ”a,” and the sentence reads: ”He will join a university.”

Thus, the correct answer is (A) a.

Quick Tip

Remember that the choice of ”a” or ”an” depends on the sound that follows the article, not just the first letter of the word.

---

124. Fill in the blanks with the correct option. I live on ___ 500 dollars a month.

(A) the

(B) a

(C) an

(D) No article required

Correct Answer: (D) No article required

Solution: In this sentence, ”500 dollars a month” refers to a specific amount of money, and when referring to amounts or quantities, we generally do not need an article. The sentence should simply be: ”I live on 500 dollars a month,” without any article before ”500 dollars.” Thus, no article is required.

Thus, the correct answer is (D) No article required.

Quick Tip

When referring to amounts, quantities, or measurements, articles are often not required.

---

125. Fill in the blanks with the correct option. It is ___ incomplete answer.

(A) a

(B) an

(C) the

(D) No article required

Correct Answer: (B) an

Solution: The word ”incomplete” begins with a vowel sound (”in”). Therefore, the indefinite article ”an” is used before the word ”incomplete,” as ”an” is the appropriate article for words starting with a vowel sound. The sentence should read: ”It is an incomplete answer.”

Thus, the correct answer is (B) an.

Quick Tip

Use ”an” before singular, countable nouns that begin with a vowel sound, regardless of the first letter.

---

126. Fill in the blanks with the correct option: Is that ___”8” or __”B”? I can’t read it.

(A) a, an

(B) an, an

(C) an, a

(D) a, the

Correct Answer: (C) an, a

Solution:

The article ”an” is used before words beginning with a vowel sound.

The number 8 begins with a vowel sound (*eight*), so we use ”an”.

The letter B begins with a consonant sound, so we use ”a”.

Thus, the correct answer is an, a (Option C).

Quick Tip

Use ”an” before vowel sounds (a, e, i, o, u) and ”a” before consonant sounds.

---

127. Fill in the blanks with the correct option: He is ___M.P and his wife is ___M.L.A

(A) a, a

(B) a, an

(C) an, the

(D) an, an

Correct Answer: (D) an, an

Solution:

The abbreviation M.P (Member of Parliament) begins with ”M”, which is pronounced as ”em” (a vowel sound).

Similarly, M.L.A (Member of Legislative Assembly) is pronounced as ”em-el-ay”, also starting with a vowel sound.

Since both words start with a vowel sound, we use ”an” before each.

Thus, the correct answer is an, an (Option D).

Quick Tip

Use ”an” before abbreviations that begin with a vowel sound, even if the letter itself is a consonant.

---

128. Fill in the blanks with the correct option: He beat him___ a stick.

(A) for

(B) with

(C) by

(D) to

Correct Answer: (B) with

Solution:

The preposition ”with” is used to indicate the instrument used to perform an action.

In this sentence, a stick is the instrument used to beat someone.

Other options do not fit:

”For” is used to indicate purpose.

”By” is used for means (e.g., ”by car”).

”To” is used for direction or movement.

Thus, the correct answer is with (Option B).

Quick Tip

Use ”with” to indicate the instrument used for an action.

---

129. Fill in the blanks with the correct option: We huddled together for warmth ___ the blankets.

(A) along

(B) besides

(C) into

(D) beneath

Correct Answer: (D) beneath

Solution:

The preposition ”beneath” means ”under”, which fits the meaning of the sentence.

The other options do not fit the context:

”Along” means beside something.

”Besides” means in addition to.

”Into” suggests movement inside something.

Thus, the correct answer is beneath (Option D).

Quick Tip

Use ”beneath” to indicate something that is located under another object.

---

130. Fill in the blanks with the correct option: There were very ___ people on the beach, so nobody saw the child drowning.

(A) much

(B) a fewer

(C) few

(D) very little

Correct Answer: (C) few

Solution:

The word ”people” is a countable noun, so we use ”few” to describe it.

The other options are incorrect:

”Much” is used for uncountable nouns.

”A fewer” is grammatically incorrect.

”Very little” is used for uncountable nouns.

Thus, the correct answer is few (Option C).

Quick Tip

Use ”few” for countable nouns and ”little” for uncountable nouns.

---

131. Fill in the blanks with the correct option: Rajat has very ___ regard for what others think.

(A) the little

(B) a few

(C) little

(D) few

Correct Answer: (C) little

Solution:

The noun ”regard” is uncountable, so we use ”little” instead of ”few.”

”Little” indicates almost no regard.

Incorrect options:

”The little” means ”some but not much,” which does not fit here.

”A few” and ”few” are used with countable nouns.

Thus, the correct answer is little (Option C).

Quick Tip

Use ”little” for uncountable nouns when referring to a small amount.

---

132. Fill in the blanks with the correct option: The instructor told the young climbers to hold on to the rope with ___ their hands.

(A) both

(B) every

(C) a

(D) each

Correct Answer: (A) both

Solution:

The phrase ”their hands” refers to two hands, so we use ”both”.

Incorrect options:

”Every” is used with singular countable nouns.

”A” is grammatically incorrect here.

”Each” is used for individual items, but ”both” is correct when referring to two things together.

Thus, the correct answer is both (Option A).

Quick Tip

Use ”both” when referring to two items together.

---

133. Fill in the blanks with the correct option: I don’t want my friends to have ___ to complain over this cake, so I will give it my best shot.

(A) much

(B) some

(C) many

(D) little

Correct Answer: (A) much

Solution:

”To complain” refers to an uncountable quantity, so we use ”much”.

Incorrect options:

”Some” is used for affirmative sentences, but here we talk about complaints in a negative sense.

”Many” is used for countable nouns.

”Little” suggests a small amount but does not fit naturally here.

Thus, the correct answer is much (Option A).

Quick Tip

Use ”much” with uncountable nouns in negative and interrogative sentences.

134. Fill in the blanks with the correct option: Would you like ___ bread?

(A) a collection of

(B) a bunch of

(C) a loaf of

(D) a can of

Correct Answer: (C) a loaf of

Solution:

Bread is an uncountable noun, but we can count loaves of bread.

Incorrect options:

”A collection of” is used for items like books or paintings.

”A bunch of” is used for things like bananas or flowers.

”A can of” is used for liquids or soft food like soda or soup.

Thus, the correct answer is a loaf of (Option C).

Quick Tip

Use ”a loaf of” for countable portions of uncountable nouns like bread.

---

135. Fill in the blanks with the correct option: There is ___ butter left. We need to buy ___ more.

(A) few, any

(B) little, some

(C) much, many

(D) few, some

Correct Answer: (B) little, some

Solution:

Butter is uncountable, so we use ”little” to indicate a small amount.

”Some” is used when referring to an additional quantity.

Incorrect options:

”Few” is used for countable nouns.

”Much, many” are incorrect because ”much” is used in negative sentences, and ”many” is

used for countable nouns.

Thus, the correct answer is little, some (Option B).

Quick Tip

Use ”little” for small amounts of uncountable nouns and ”some” to indicate additional quantity.

Read the following passage and answer the questions (136

141):

What have i learnt after eighty years on planet earth? Quite frankly, very little. i don”t believe the elders and philosophers. Wisdom does not come with age. Maybe it is born in the cradle — but this too is conjecture, i only know that for the most part i have followed instinct rather than intelligence, and this has resulted in a modicum of happiness. You will find your own way to this reward which is in the end the only reward worth having. To have got to this point in life without the solace of religion says something for all the things that have brought me joy and a degree of contentment. Books, of course; i couldn’t have survived without books and stories. And companionship — which is sometimes friendship, sometimes love and sometimes, if we are lucky, both. And a little light laughter, a sense of humour. And, above all, my relationship with the natural world — up here in the hills; in the dusty plains; in a treeless mohalla choked with concrete flats, where i once found a marigold growing out of a crack in a balcony. i removed the plaster from the base of the plant, and filled in a little earth which i watered every morning. The plant grew, and sometimes it produced a little orange flower which i plucked and gave away before it died. This much i can tell you: for all its hardships and complications, life is simple. And a nature that doesn’t sue for happiness often receives it in large measure. Was it accidental, or was it ordained or was it in my nature to arrive unharmed at this final stage of life”s journey? i live this life passionately, and i wish it could go on and on. But all good things must come to an end, and when the time comes to make my exit, i hope i can do so with good grace and humour. But there is time yet, and many small moments to savour.A small ginger cat arrives on my terrace every afternoon, to curl up in the sun and slumber

peacefully for a couple of hours. When he awakes, he gets on his feet with minimum effort, arches his back and walks away as he had come. The same spot every day, the same posture, the same pace. There may be better spots — sunnier, quieter, frequented by birds that can be hunted when the cat is rested and restored. But there is no guarantee, and the search will be never

ending, and there may rarely be time to sleep after all that searching and finding. It occurs to me that perhaps the cat is a monk. By this i do not mean anything austere. i doubt anyone in single minded pursuit of enlightenment ever finds it. A good monk would be a mild sort of fellow, a bit of a sensualist, capable of compassion for the world, but also for himself. He would know that it is all right not to climb every mountain. A good monk would know that contentment is easier to attain than happiness, and that is enough. And what of happiness, then? Happiness is a mysterious thing, to be found somewhere between too little and too much. But it is as elusive as a butterfly, and we must never pursue it. If we stay very still, it may come and settle on our hand. But only briefly. We must savour those moments, for they will not come our way very often.

136. The author's perspective on life is, it is

(A) complex.

(B) beautiful.

(C) simple.

(D) worthy.

Correct Answer: (C) simple.

Solution:

The author states that despite life's hardships and complications, life is ultimately simple.

He emphasizes that one does not need religion, wisdom, or age to understand life.

He focuses on finding contentment rather than overcomplicating life.

Thus, the correct answer is simple (Option C).

Quick Tip

Simplicity in life leads to contentment; overcomplication leads to unnecessary struggles.

137. Which of the following statements is FALSE?

(A) The author strongly believes that age brings wisdom.

(B) The author couldn't imagine his life without books and stories.

(C) The author mostly followed his instinct rather than intelligence.

(D) The author maintains a harmonious relationship with the natural world.

Correct Answer: (A) The author strongly believes that age brings wisdom.

Solution:

The passage clearly states that the author does not believe wisdom comes with age.

Instead, he suggests that wisdom is either inborn or non

existent.

The other statements are true, as he values books, instincts, and nature.

Thus, the false statement is Option A.

Quick Tip

Wisdom does not necessarily come with age; it is often a product of experience and insight.

---

138. Choose from the following the Synonym of 'conjecture' as used in the passage.

(A) Conclusion

(B) Assumption

(C) Perception

(D) Creation

Correct Answer: (B) Assumption

Solution: "Conjecture" means a guess or assumption based on incomplete information.

The author uses "conjecture" to mean that he cannot be certain about the nature of wisdom.

"Conclusion" is incorrect because a conclusion is based on logic and facts.

Thus, the correct answer is Assumption (Option B).

Quick Tip

"Conjecture" refers to an opinion formed without full evidence.

---

139. Which of the following statements is TRUE?

(A) A small ginger cat would arrive on the author's terrace every afternoon.

(B) The author once grew a marigold plant in his backyard and used to water it every morning.

(C) The author used to admire the little orange flower and would not let anyone pluck it.

(D) The author asserts that he believes in elders and the philosophers.

Correct Answer: (A) A small ginger cat would arrive on the author's terrace every afternoon.

Solution: The passage mentions that a small ginger cat visits the author's terrace every afternoon.

Option B is incorrect because the marigold plant was in a balcony crack, not a backyard.

Option C is incorrect because the author plucked the flower and gave it away.

Option D is incorrect because the author does not believe in the wisdom of elders.

Thus, the correct answer is Option A.

Quick Tip

Pay close attention to details in a passage to determine true and false statements.

---

140. In the author's opinion, a good monk would be a

1. mild sort of person
2. bit of a sensualist
3. compassionate person
4. gloomy person

(A) 1, 2, and 4

(B) 3 and 4

(C) 1 and 2

(D) 1, 2, and 3

Correct Answer: (D) 1, 2, and 3

Solution: The passage describes a good monk as:

Mild in nature (gentle, calm).

A bit of a sensualist (enjoys small pleasures).

Compassionate towards others.

Gloomy (sad) is not a characteristic of a good monk.

Thus, the correct answer is Option D (1, 2, and 3).

Quick Tip

A good monk is calm, enjoys life's small pleasures, and is compassionate.

---

141. According to the passage, we infer that Nature is bounteous and it gives us

(A) happiness and protection.

(B) food and water.

(C) afterlife and rewards.

(D) friendship and love.

Correct Answer: (B) food and water.

Solution: The passage emphasizes the abundance of nature.

Nature provides trees, plants, flowers, and sustenance, which includes food and water.

Happiness and protection (Option A) are benefits but not the primary gift of nature.

Afterlife and rewards (Option C) are religious concepts, which the author does not discuss.

Friendship and love (Option D) come from relationships, not nature itself.

Thus, the correct answer is food and water (Option B).

Quick Tip

Nature's primary gifts are essential resources like food and water.

---

142. Identify the synonym of the given word: ABSOLUTE

(A) division

(B) complete

(C) small

(D) half

Correct Answer: (B) complete

Solution: The word "absolute" means something that is complete, total, or not limited. The closest synonym among the options is "complete," which reflects the idea of something

being whole or entire without restriction. Therefore, the correct answer is (B) complete.

Quick Tip

When looking for synonyms, identify the word's meaning and choose the option that closely matches that meaning in context.

---

143. Identify the synonym of the given word: ABANDON

(A) try

(B) join

(C) keep with

(D) disregard

Correct Answer: (D) disregard

Solution: "Abandon" means to leave behind or give up on something. The closest synonym to this is "disregard," which also means to ignore or leave something without care or attention. Therefore, the correct answer is (D) disregard.

Quick Tip

In vocabulary questions, focus on the meaning of the word in context and identify the option that most closely matches that meaning.

---

144. Identify the synonym of the given word: IMPULSIVE

(A) hasty

(B) calm

(C) cautious

(D) sensible

Correct Answer: (A) hasty

Solution: The word "impulsive" refers to acting quickly without thought or careful consideration. The closest synonym to "impulsive" in the given options is "hasty," which also refers to acting quickly, often without due thought or preparation. Therefore, the correct answer is (A) hasty.

Quick Tip

To identify synonyms, look for words that share similar meanings in terms of urgency or reaction without careful planning.

---

145. Which of the following sentences is CORRECT?

(A) One should keep himself or herself ready for emergency.

(B) No one keeps himself or herself ready for emergency.

(C) One should keep oneself ready for emergency.

(D) One should kept oneself ready for emergency.

Correct Answer: (C) One should keep oneself ready for emergency.

Solution: The correct sentence should use ”one” as the subject, and when referring to a general person (one), the reflexive pronoun ”oneself” should be used. The sentence ”One should keep oneself ready for emergency” correctly uses the reflexive pronoun ”oneself” to match the subject ”one.” Therefore, the correct answer is (C) One should keep oneself ready for emergency.

Quick Tip

When using ”one” as a subject, the appropriate reflexive pronoun to use is ”oneself,” not ”himself” or ”herself.”

---

146. Which of the following sentences is CORRECT?

(A) He eats eggs as well as fish.

(B) He eat eggs as well as fish.

(C) He eaten eggs as well as fishes.

(D) He eats egg as well as fishes.

Correct Answer: (A) He eats eggs as well as fish.

Solution: In this sentence, we are talking about two items (eggs and fish). The subject ”he” requires the verb ”eats” in the present tense, and when listing items, we do not typically pluralize the second noun unless it refers to a specific number. Therefore, the correct sentence is ”He eats eggs as well as fish,” where ”fish” remains in its singular form, even

when referring to multiple types or pieces of fish. Therefore, the correct answer is (A) He eats eggs as well as fish.

Quick Tip

When listing items after ”as well as,” the second item usually remains in its singular form unless specified otherwise.

---

147. Which of the following sentences is CORRECT?

(A) All that glitters is not gold.

(B) All these glitters is not gold.

(C) All that glitters are not gold.

(D) All glittering is not gold.

Correct Answer: (A) All that glitters is not gold.

Solution: The correct idiomatic expression is ”All that glitters is not gold,” meaning that not everything that looks valuable or promising is actually so. In this expression, ”glitters” is treated as a singular noun referring to everything that shines or glitters, so we use ”is” and not ”are.” Therefore, the correct answer is (A) All that glitters is not gold.

Quick Tip

When using idioms like ”All that glitters is not gold,” pay attention to the standard phrasing and subject

verb agreement in the sentence.

---

148. Fill in the blanks with the correct option:

When was the last time you ___ a new shirt?

(A) buys

(B) bought

(C) buy

(D) buying

Correct Answer: (B) bought

Solution: The correct option is ”bought” because the question refers to an action that

occurred in the past, which requires the past tense form of the verb.

The other options do not fit the tense structure of the sentence.

Conclusion: The correct answer is option (B), ”bought,” as it matches the past tense requirement of the question.

Quick Tip

In English, use the past tense for actions that happened at a specific time in the past.

---

149. Fill in the blanks with the correct option:

She has been ___ to music all day.

(A) listening

(B) listened

(C) listens

(D) listen

Correct Answer: (A) listening

Solution: The correct option is ”listening” because the sentence uses the present perfect continuous tense, which requires the verb in the ”ing” form to show ongoing action.

The other options do not fit this tense structure.

Conclusion: The correct answer is option (A), ”listening,” to reflect the ongoing action of listening to music.

Quick Tip

The present perfect continuous tense is used to show an action that began in the past and is still continuing.

---

150. Fill in the blanks with the correct option:

When I came to this city, I _____ anyone.

(A) haven’t known

(B) didn’t know

(C) wasn’t knowing

(D) wouldn’t knowing

Correct Answer: (B) didn't know

Solution: The correct option is "didn't know" because the sentence refers to a past action in a specific point of time, and the past tense of the verb "know" is used with "didn't."
The other options are incorrect because they do not match the sentence's structure and context.

Conclusion: The correct answer is option (B), "didn't know," because it correctly uses the past simple tense in the negative form.

Quick Tip

In past simple sentences, use "didn't" followed by the base form of the verb.

Section 6 - Verbal Skills Part B

Read the following passage and answer the questions (151-152):

HISTORY OF LIBRARY

A library's collection can include books, periodicals, newspapers, manuscripts, films, maps, prints, documents, microform, CDs, cassettes, videotapes, DVDs, Blu-ray Discs, e-books, audiobooks, databases, and other formats. In Latin and Greek, the idea of a bookcase is represented by Bibliotheca and Bibliothéké respectively. Derivatives of these mean library in many modern languages, e.g. French bibliothéque. The first libraries consisted of archives of the earliest form of writing the clay tablets in cuneiform script discovered in temple rooms in Sumer, some dating back to 2600 BC. These archives, which mainly consisted of the records of commercial transactions or inventories, mark the end of prehistory and the start of history. Things were much the same in the government and temple records on papyrus of Ancient Egypt. The earliest discovered private archives were kept at Ugarit; besides correspondence and inventories, texts of myths may have been standardized practice
texts for teaching new scribes. There is also evidence of libraries at Nippur about 1900 BC and those at Nineveh about 700 BC showing a library classification system. Over 30,000 clay tablets from the Library of Ashurbanipal have been discovered at Nineveh, providing modern scholars with an amazing wealth of Mesopotamian literary, religious and administrative work. Among the findings were the Enuma Elish, also known as the

Epic of Creation, which depicts a traditional Babylonian view of creation, the Epic of Gilgamesh, a large selection of ”omen texts” including Enuma Anu Enlil which ”contained omens dealing with the moon, its visibility, eclipses, and conjunction with planets and fixed stars, the sun, its corona, spots, and eclipses, the weather, namely lightning, thunder, and clouds, and the planets and their visibility, appearance, and stations”, and astronomic/astrological texts, as well as standard lists used by scribes and scholars such as word lists, bilingual vocabularies, lists of signs and synonyms, and lists of medical diagnoses. According to legend, mythical philosopher Laozi was keeper of books in the earliest library in China, which belonged to the Imperial Zhou dynasty. Also, evidence of catalogues found in some destroyed ancient libraries illustrates the presence of librarians.

151. Bibliotheca is ___ for bookcase.

(A) Latin

(B) Spanish

(C) French

(D) English

Correct Answer: (A) Latin

Solution: The passage states that in Latin and Greek, the idea of a bookcase is represented by ”Bibliotheca” and ”Bibliothéké”, respectively.

The word ”Bibliotheca” specifically comes from Latin.

Incorrect options:

Spanish (B): The Spanish word for library is ”biblioteca”, which is similar but not the Latin origin.

French (C): The French word ”bibliothèque” derives from the Latin ”Bibliotheca”, but it is not the original.

English (D): In English, ”library” is derived from the Latin ”librarium”, not ”Bibliotheca.”

Thus, the correct answer is Latin (Option A).

Quick Tip

The Latin word ”Bibliotheca” means bookcase, and it influenced the modern French word ”bibliothèque.”

152. Temples of Ancient Egypt held records of

(A) creation

(B) epics

(C) literary texts

(D) commercial transactions

Correct Answer: (D) commercial transactions

Solution: The passage states that temple records in Ancient Egypt were primarily for government and commercial transactions on papyrus.

These archives were not literary or mythological texts, but administrative records.

Incorrect options:

Creation (A): The Epic of Creation was found in Mesopotamian archives, not Egyptian temples.

Epics (B): The Epic of Gilgamesh and other mythological texts were found in Nineveh and Ugarit, not Egyptian temples.

Literary texts (C): Standardized teaching texts were found in early archives, but not the Egyptian temple records.

Thus, the correct answer is commercial transactions (Option D).

Quick Tip

Ancient Egyptian temple records primarily documented commercial and administrative transactions on papyrus.

---

153. Fill in the blanks with the correct option. This school has great teachers.

(A) a

(B) an

(C) the

(D) No article required

Correct Answer: (D) No article required

Solution: In this sentence, ”great teachers” is a general statement. When talking about

general things or plural nouns that do not refer to a specific group, we do not use any article. The correct sentence is: ”This school has great teachers.”

Thus, the correct answer is (D) No article required.

Quick Tip

Use no article when referring to general things or plural nouns that are not specific.

---

154. Fill in the blanks with the words that best fill in the blanks. On Wednesday, I bought ___ pair of shoes and ___ umbrella from the department store located on Sixth Avenue.

(A) a-a

(B) a-an

(C) a-the

(D) an-an

Correct Answer: (B) a-an

Solution: Here, the indefinite articles ”a” and ”an” are used. ”Pair” starts with a consonant sound, so we use ”a” before it. ”Umbrella” starts with a vowel sound, so we use ”an” before it. The sentence should read: ”On Wednesday, I bought a pair of shoes and an umbrella from the department store located on Sixth Avenue.”

Thus, the correct answer is (B) a-an.

Quick Tip

Use ”a” before words that begin with consonant sounds and ”an” before words that begin with vowel sounds.

---

155. Fill in the blanks with the correct option. There are ___ books on the table.

(A) any

(B) much

(C) many

(D) little

Correct Answer: (C) many

Solution: The word ”books” is a countable noun in plural form, so we use ”many” to indicate a large number of countable items. The sentence should read: ”There are many books on the table.”

Thus, the correct answer is (C) many.

Quick Tip

Use ”many” with countable nouns in plural form when talking about a large number.

---

156. Fill in the blanks with the correct option. There are only ___ notes in his wallet.

(A) a few

(B) many

(C) any

(D) much

Correct Answer: (A) a few

Solution: The phrase ”a few” is used with countable nouns to indicate a small number. Since ”notes” is a countable noun, ”a few” is the correct choice to indicate a small quantity. The sentence reads: ”There are only a few notes in his wallet.”

Thus, the correct answer is (A) a few.

Quick Tip

Use ”a few” for countable nouns when referring to a small quantity.

---

157. Which of the following sentences is CORRECT?

(A) He himself said so.

(B) He herself say so.

(C) He herself says so.

(D) He himself saying so.

Correct Answer: (A) He himself said so.

Solution: The sentence is referring to the person (he) emphasizing that he personally said it. The reflexive pronoun ”himself” is used correctly here to emphasize the subject ”he.” The sentence ”He himself said so” is grammatically correct and maintains proper subject-verb agreement in the past tense (”said”).

Thus, the correct answer is (A) He himself said so.

Quick Tip

When using reflexive pronouns (himself, herself, etc.), ensure they agree with the subject and emphasize the subject’s involvement.

---

158. Which of the following sentences is CORRECT?

(A) One should keep oneself ready for emergency.

(B) One should kept himself or herself ready for emergency.

(C) One should be keeping himself ready for emergency.

(D) One should keep himself to herself ready for emergency.

Correct Answer: (A) One should keep oneself ready for emergency.

Solution: The correct pronoun for ”one” is ”oneself”, making Option A grammatically correct.

Incorrect options:

(B) ”Should kept” is incorrect; ”should” is followed by the base form of the verb.

(C) ”Should be keeping” is incorrect; it is not needed in this context.

(D) ”Himself to herself” is incorrect; inconsistent pronouns.

Thus, the correct answer is Option A.

Quick Tip

Use ”oneself” with ”one” to maintain consistency in formal English.

---

159. Which of the following sentences is CORRECT?

(A) Mices are living in hole.

(B) Mice has been living in hole.

(C) Mices have lived in hole.

(D) Mice live in holes.

Correct Answer: (D) Mice live in holes.

Solution: The correct plural of ”mouse” is ”mice”, not ”mices”.

The correct verb form for plural subjects is ”live,” not ”has been living.”

Incorrect options:

(A) ”Mices” is incorrect; ”mice” is already plural.

(B) ”Mice has been” is incorrect; plural subjects take ”have,” not ”has.”

(C) ”Mices” is incorrect, and ”have lived in hole” should be ”have lived in holes.”

Thus, the correct answer is Option D.

Quick Tip

The correct plural of ”mouse” is ”mice,” and plural nouns take plural verbs.

---

160. Which of the following sentences is CORRECT?

(A) My pair of scissor are blunt.

(B) My scissor has blunt.

(C) My scissor is blunt.

(D) My pair of scissors is blunt.

Correct Answer: (D) My pair of scissors is blunt.

Solution: The word ”scissors” is always plural, but when referring to a pair of scissors, it is treated as singular.

Incorrect options:

(A) ”are blunt” is incorrect because ”pair” is singular.

(B) ”has blunt” is incorrect; ”has” should be followed by a past participle.

(C) ”scissor” is incorrect because ”scissors” is always plural.

Thus, the correct answer is Option D.

Quick Tip

”Scissors” is always plural, but ”a pair of scissors” is singular.

---

161. Which of the following sentences is CORRECT?

(A) She has long and black hair.

(B) She had longest and black hairs.

(C) She has long blackening hair.

(D) She has long and heavier hair.

Correct Answer: (A) She has long and black hair.

Solution: ”Hair” is an uncountable noun, so it does not take a plural form like ”hairs.”

The correct structure for adjectives is ”long and black” (adjective + adjective + noun).

Incorrect options:

(B) ”longest and black hairs” is incorrect because ”hairs” should be ”hair” and ”longest” should be ”long”.

(C) ”blackening hair” is incorrect; ”blackening” is the wrong form.

(D) ”long and heavier hair” is incorrect; the adjectives should match in form (”long and heavy” is correct).

Thus, the correct answer is Option A.

Quick Tip

”Hair” is an uncountable noun; avoid using ”hairs” unless referring to individual strands.

---

162. Which of the following sentences is CORRECT?

(A) Neither he and his wife is willing to leave this house.

(B) Neither he and his wife are willing to leave this house.

(C) Neither he nor his wife is willing to leave this house.

(D) Neither he or his wife is willing to leave this house.

Correct Answer: (C) Neither he nor his wife is willing to leave this house.

Solution: ”Neither... nor” is the correct correlative conjunction.

The verb agrees with the subject closest to it, which is ”his wife” (singular), so we use ”is” instead of ”are.”

Incorrect options:

(A) ”Neither he and his wife” is incorrect; ”neither” must be followed by ”nor.”

(B) ”Neither... and” is incorrect, and ”are” does not agree with the singular subject ”wife.”

(D) ”Neither... or” is incorrect; the correct pair is ”neither... nor.”

Thus, the correct answer is Option C.

Quick Tip

”Neither... nor” is a correct correlative conjunction, and the verb agrees with the subject closest to it.

---

163. Fill in the blanks with the correct option: Did you just ___ me a liar?

(A) call

(B) called

(C) have called

(D) calling

Correct Answer: (A) call

Solution: The verb following ”Did” must be in the base form (infinitive without ”to”). ”Did” is already in the past tense, so we do not use ”called” (past tense).

Incorrect options:

(B) ”called” is incorrect because past tense is already indicated by ”Did.”

(C) ”have called” is incorrect because ”Did” is not used with present perfect tense.

(D) ”calling” is incorrect as the base form is required.

Thus, the correct answer is Option A.

Quick Tip

When a sentence starts with ”Did,” use the base form of the verb.

---

164. Fill in the blanks with the correct option: I ___ in bed when I heard the accident

outside.

(A) was lying

(B) lay

(C) have lain

(D) had lain

Correct Answer: (A) was lying

Solution: The sentence refers to a past continuous action that was happening when another action (”heard”) occurred.

The correct structure is ”was + present participle (lying)” for past continuous.

Incorrect options:

(B) ”lay” is simple past, which does not fit the context of an ongoing action.

(C) ”have lain” is present perfect, which is incorrect for past events.

(D) ”had lain” is past perfect, which requires another past event before it (not suitable here).

Thus, the correct answer is Option A.

Quick Tip

Use past continuous (”was/were + verb

ing”) when an action is interrupted by another past event.

---

165. Fill in the blanks with the correct option: I ___ in the same place for the past three years.

(A) have been living

(B) has lived

(C) will be living

(D) be lived

Correct Answer: (A) have been living

Solution: The phrase ”for the past three years” suggests a present perfect continuous tense.

The correct form is ”have been living” (present perfect continuous: have/has + been + verb ing).

Incorrect options:

(B) ”has lived” is incorrect because it is present perfect simple, which does not emphasize continuity.

(C) ”will be living” is incorrect because it refers to the future, but the sentence is about the past and present.

(D) ”be lived” is grammatically incorrect.

Thus, the correct answer is Option A.

Quick Tip

Use present perfect continuous (”have/has been + verb ing”) for actions continuing from the past into the present.

---

166. Fill in the blanks with the correct option: Simon has ___ living here for 6 months.

(A) been

(B) is

(C) am

(D) are

Correct Answer: (A) been

Solution: The verb ”has” is followed by ”been” in the present perfect continuous tense (”has been living”).

Incorrect options:

(B) ”is” is incorrect because ”has is living” is grammatically incorrect.

(C) ”am” is incorrect because it does not match ”has” (used with ”I”).

(D) ”are” is incorrect because ”has are living” is not a valid structure.

Thus, the correct answer is Option A.

Quick Tip

Present perfect continuous requires ”has/have been + verb ing.”

---

167. Fill in the blanks with the correct option: According to the news, the school __

reopen tomorrow.

(A) will

(B) were

(C) has

(D) was

Correct Answer: (A) will

Solution: The sentence refers to a future event (the school reopening tomorrow). To indicate the future tense, we use ”will” as the auxiliary verb. The correct sentence is: ”According to the news, the school will reopen tomorrow.” Thus, the correct answer is (A) will.

Quick Tip

To express future actions or events, use ”will” followed by the base form of the verb.

---

168. Fill in the blanks with the correct option: Those newspapers ___ in a big truck.

(A) are delivering

(B) is deliver

(C) are delivered

(D) had delivered

Correct Answer: (C) are delivered

Solution: The sentence describes a passive action (newspapers being delivered). In passive voice, we use the verb ”to be” (in this case, ”are”) and the past participle form of the main verb (”delivered”). The correct sentence is: ”Those newspapers are delivered in a big truck.” Thus, the correct answer is (C) are delivered.

Quick Tip

In passive constructions, use the correct form of the verb ”to be” followed by the past participle of the main verb.

---

169. Fill in the blanks with the correct option: The hunters went ___ the forest.

(A) through

(B) by

(C) from

(D) on

Correct Answer: (A) through

Solution: The preposition ”through” indicates movement within or across a place. In this case, the hunters are moving inside or across the forest. Therefore, the correct sentence is: ”The hunters went through the forest.” Thus, the correct answer is (A) through.

Quick Tip

Use ”through” when referring to movement within or across a place or area.

---

170. Fill in the blanks with the correct option: He wrote a letter ___ his father.

(A) with

(B) from

(C) at

(D) to

Correct Answer: (D) to

Solution: When indicating the recipient of an action, we use the preposition ”to.” In this case, the letter is being written to the father. The correct sentence is: ”He wrote a letter to his father.” Thus, the correct answer is (D) to.

Quick Tip

Use ”to” when indicating the recipient of an action or communication.

---

171. Fill in the blanks with the correct option: He walked ___ the bank of the river.

(A) for

(B) along

(C) through

(D) from

Correct Answer: (B) along

Solution: The preposition ”along” is used to describe movement or direction parallel to the edge of something, like a river. The correct sentence is: ”He walked along the bank of the river.” Thus, the correct answer is (B) along.

Quick Tip

Use ”along” when describing movement or direction parallel to the length of something.

---

172. Fill in the blanks with the correct option: The ball rolled ___ the pavement.

(A) over

(B) for

(C) onto

(D) upto

Correct Answer: (C) onto

Solution: The preposition ”onto” is used to indicate movement from one surface to another.

Incorrect options:

(A) ”over” suggests movement above something but does not imply coming to rest on a surface.

(B) ”for” is incorrect; it indicates purpose or direction but does not fit the context.

(D) ”upto” is incorrect because it indicates a limit or extent, not movement.

Thus, the correct answer is Option C.

Quick Tip

Use ”onto” to show movement towards a surface.

---

173. Fill in the blanks with the correct option: I am going ___ the station.

(A) to

(B) in

(C) for

(D) by

Correct Answer: (A) to

Solution: The correct preposition ”to” is used to indicate movement towards a specific destination.

Incorrect options:

(B) ”in” suggests being inside a place rather than moving towards it.

(C) ”for” indicates purpose but not movement.

(D) ”by” refers to means of transport, not destination.

Thus, the correct answer is Option A.

Quick Tip

Use ”to” when referring to movement towards a place.

---

174. Fill in the blanks with the correct option: The motorcycle leaned ___ the wall.

(A) against

(B) by

(C) for

(D) to

Correct Answer: (A) against

Solution: The preposition ”against” is used when something is in contact with another surface for support.

Incorrect options:

(B) ”by” indicates closeness but not direct contact.

(C) ”for” is incorrect as it indicates purpose, not position.

(D) ”to” is incorrect because it indicates direction, not physical leaning.

Thus, the correct answer is Option A.

Quick Tip

Use ”against” when describing something leaning or resting on another surface.

---

175. Choose one of the words from the options below that has a similar meaning to the word ’Belligerent’.

(A) friendly

(B) benign

(C) combative

(D) placative

Correct Answer: (C) combative

Solution: ”Belligerent” means hostile, aggressive, or ready to fight.

The synonym ”combative” also means eager to fight or argue.

Incorrect options:

(A) ”friendly” is the opposite of belligerent.

(B) ”benign” means kind and gentle.

(D) ”placative” means calming or peacemaking.

Thus, the correct answer is Option C.

Quick Tip

”Belligerent” describes a hostile or aggressive attitude.

---

176. Choose one of the words from the options below that has a similar meaning to the word ’Taciturn’.

(A) reserved

(B) talkative

(C) diplomatic

(D) obstinate

Correct Answer: (A) reserved

Solution: ”Taciturn” means quiet, reserved, and not talkative.

The synonym ”reserved” means not openly expressing thoughts or emotions.

Incorrect options:

(B) ”talkative” is the opposite of taciturn.

(C) ”diplomatic” means tactful or skilled in dealing with people.

(D) ”obstinate” means stubborn, which is unrelated to taciturn.

Thus, the correct answer is Option A.

Quick Tip

A ”taciturn” person is quiet and reserved in speech.

---

177. Choose one of the options below that has a similar meaning to the word ’Customary’.

(A) accepted

(B) unusual

(C) slavery

(D) drudgery

Correct Answer: (A) accepted

Solution: ”Customary” means something that is traditional, commonly practiced, or widely accepted.

The synonym ”accepted” means something that is recognized or followed by many people.

Incorrect options:

(B) ”unusual” is the opposite of customary.

(C) ”slavery” is unrelated to customary traditions.

(D) ”drudgery” refers to tedious or difficult work, which is not a synonym.

Thus, the correct answer is Option A.

Quick Tip

”Customary” refers to something that is commonly accepted or traditionally followed.

---

178. Identify the synonym of the given word: ZENITH

(A) Middle

(B) Under

(C) Pinnacle

(D) Nadir

Correct Answer: (C) Pinnacle

Solution: ”Zenith” refers to the highest point or peak of something, such as success or

achievement.

The synonym ”pinnacle” also means the highest point of success, achievement, or excellence.

Incorrect options:

(A) ”Middle” is incorrect because it refers to an average point, not the highest.

(B) ”Under” is unrelated to zenith.

(D) ”Nadir” is the opposite of zenith, meaning the lowest point.

Thus, the correct answer is Option C.

Quick Tip

”Zenith” refers to the highest point, while ”nadir” refers to the lowest point.

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179. Identify the synonym of the given word: PERTNESS

(A) impudence

(B) petulance

(C) pitulance

(D) willing

Correct Answer: (A) impudence

Solution: ”Pertness” refers to boldness, impudence, or being lively in an impertinent way.

The synonym ”impudence” means rudeness or disrespectful boldness.

Incorrect options:

(B) ”petulance” means childish irritability, which is different from impudence.

(C) ”pitulance” is not a valid English word.

(D) ”willing” is unrelated to pertness.

Thus, the correct answer is Option A.

Quick Tip

”Pertness” describes an impudent, cheeky, or lively attitude.

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180. Choose one of the words from the options below that has a similar meaning to the word ’Sabbatical’.

(A) wrecker

(B) disruption

(C) business

(D) holiday

Correct Answer: (D) holiday

Solution: ”Sabbatical” refers to a break, leave, or extended holiday from work, usually for study or rest.

The synonym ”holiday” refers to a period of rest or leave from work.

Incorrect options:

(A) ”wrecker” refers to something that causes destruction.

(B) ”disruption” means a disturbance, not a break.

(C) ”business” is the opposite of sabbatical, as it involves work.

Thus, the correct answer is Option D.

Quick Tip

A ”sabbatical” is an extended break from work, often for personal growth or relaxation.
