

## IBSAT 2025 Question Paper with Solutions (Memory Based)

1. If the price of a commodity increases by 25%, by what percentage should the consumption be reduced to keep the expenditure the same?

- (A) 20%
- (B) 25%
- (C) 30%
- (D) 33.33%

Correct Answer: (A) 20%

Solution:

Step 1: Interpreting the problem.

The problem asks for the percentage decrease in consumption required to keep total expenditure unchanged when the price rises by 25%.

Step 2: Applying the concept.

Assume the original price to be 100 units and consumption to be 100 units. Original expenditure =  $100 \times 100 = 10,000$  units.

After a 25% increase, the new price becomes 125 units. To maintain the same expenditure:

$$\text{New consumption} = \frac{10,000}{125} = 80 \text{ units}$$

Step 3: Calculating percentage reduction.

Reduction in consumption =  $100 - 80 = 20$  units.

$$\text{Percentage reduction} = \frac{20}{100} \times 100 = 20\%$$

Step 4: Conclusion.

Therefore, consumption must be reduced by 20% to keep the expenditure constant.  
Hence, the correct answer is (A) 20%.

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2. Choose the word that is most similar in meaning to "ELOQUENT":

- (A) Silent
- (B) Articulate
- (C) Clumsy
- (D) Vague

Correct Answer: (B) Articulate

Solution:

Step 1: Understanding the meaning.

The word "eloquent" refers to the ability to express ideas clearly, fluently, and persuasively, especially in speech or writing.

Step 2: Evaluating the options.

- (A) Silent: Incorrect — indicates absence of speech.
- (B) Articulate: Correct — denotes clear and effective expression of thoughts.
- (C) Clumsy: Incorrect — suggests awkwardness.
- (D) Vague: Incorrect — implies lack of clarity.

Step 3: Conclusion.

Therefore, the correct answer is (B) Articulate, which is the closest synonym of "eloquent".

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3. In a certain code, "APPLE" is written as "BQQMF". How is "BANANA" written in that code?

- (A) CBOBOB
- (B) CBOCOB
- (C) CBBOCB
- (D) CBOBOC

Correct Answer: (A) CBOBOB

Solution:

Step 1: Identifying the coding pattern.

From the given example, APPLE is coded as BQQMF, where each letter is shifted one position forward in the alphabet.

Step 2: Applying the same rule.

The letter shifts are:  $A \rightarrow B$ ,  $P \rightarrow Q$ ,  $P \rightarrow Q$ ,  $L \rightarrow M$ ,  $E \rightarrow F$ .

Applying this +1 alphabet shift to BANANA:  $B \rightarrow C$ ,  $A \rightarrow B$ ,  $N \rightarrow O$ ,  $A \rightarrow B$ ,  $N \rightarrow O$ ,  $A \rightarrow B$ .

This results in the coded word CBOBOB.

Step 3: Conclusion.

Thus, the correct answer is (A) CBOBOB, which follows the same coding pattern.

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4. What is the next number in the series: 2, 3, 5, 7, 11, ?

(A) 13

(B) 12

(C) 15

(D) 17

Correct Answer: (A) 13

Solution:

Step 1: Interpreting the sequence.

The problem requires identifying the next term in a number sequence that follows a definite rule.

Step 2: Identifying the pattern.

The given numbers are consecutive prime numbers: 2, 3, 5, 7, and 11. The next prime number after 11 is 13.

Step 3: Evaluating the options.

(A) 13: Correct — It is the next prime in the sequence.

(B) 12: Incorrect — 12 is not a prime number.

(C) 15: Incorrect — 15 is a composite number.

(D) 17: Incorrect — The immediate next prime, 13, is skipped.

Step 4: Conclusion.

Hence, the correct answer is (A) 13, as the sequence follows prime numbers.

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5. If all cats are animals and some animals are dogs, which of the following conclusions is definitely true?

(A) All cats are dogs

(B) Some cats are dogs

(C) No cats are dogs

(D) None of the above

Correct Answer: (D) None of the above

Solution:

Step 1: Interpreting the statements.

The problem involves drawing a logical conclusion based on the given information about cats, animals, and dogs.

Step 2: Logical evaluation.

The statements establish relationships involving animals but do not define any direct or necessary relationship between cats and dogs. Therefore, no definite conclusion regarding their relationship can be derived.

Step 3: Assessing the options.

(A) All cats are dogs: Not supported by the statements.

(B) Some cats are dogs: Cannot be concluded with certainty.

(C) No cats are dogs: Cannot be concluded with certainty.

(D) None of the above: Correct — No definite conclusion follows.

Step 4: Conclusion.

Hence, the correct answer is (D) None of the above.

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6. A train travels 240 km in 4 hours. If the speed is increased by 20%, how much time will it take to cover the same distance?

- (A) 3 hours
- (B) 3.2 hours
- (C) 3.33 hours
- (D) 3.5 hours

Correct Answer: (C) 3.33 hours

Solution:

Step 1: Understanding the situation.

The problem requires calculating the new time taken to travel 240 km after a 20% increase in speed.

Step 2: Applying the concept.

Given that 240 km is covered in 4 hours, the original speed is:

$$\frac{240}{4} = 60 \text{ km/h}$$

After a 20% increase, the new speed becomes:

$$60 \times 1.20 = 72 \text{ km/h}$$

Time required at the increased speed:

$$\frac{240}{72} = \frac{10}{3} \approx 3.33 \text{ hours}$$

Step 3: Evaluating the options.

- (A) 3 hours: Too short.
- (B) 3.2 hours: Approximate but not exact.
- (C) 3.33 hours: Correct — matches the calculated value.
- (D) 3.5 hours: Too long.

Step 4: Conclusion.

Therefore, the correct answer is (C) 3.33 hours, since time varies inversely with speed.

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7. Choose the word that is opposite in meaning to "METICULOUS":

- (A) Careful
- (B) Precise
- (C) Sloppy
- (D) Thorough

Correct Answer: (C) Sloppy

Solution:

Step 1: Understanding the word.

The word “meticulous” describes someone who is very careful and pays close attention to details.

Step 2: Evaluating the options.

- (A) Careful: Incorrect — conveys a similar meaning.
- (B) Precise: Incorrect — also denotes accuracy and attention to detail.
- (C) Sloppy: Correct — implies carelessness and lack of attention to detail.
- (D) Thorough: Incorrect — similar in meaning to meticulous.

Step 3: Conclusion.

Therefore, the correct answer is (C) Sloppy, as it is the antonym of “meticulous”.

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8. If A is the brother of B, C is the sister of A, and D is the father of B, then how is C related to D?

- (A) Daughter
- (B) Sister
- (C) Mother
- (D) Wife

Correct Answer: (A) Daughter

Solution:

Step 1: Interpreting the relationships.

A is the brother of B, which means both share the same parents. C is the sister of A, so C is also a sibling of B.

Step 2: Establishing family links.

D is stated to be the father of B. Since A and C are siblings of B, D must also be the father of A and C.

Step 3: Drawing the conclusion.

Therefore, C is the daughter of D.

Final Answer: (A) Daughter

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9. A shopkeeper marks his goods 40% above cost price and offers a 10% discount.

What is his percentage profit?

(A) 20%

(B) 26%

(C) 30%

(D) 34%

Correct Answer: (B) 26%

Solution:

Step 1: Understanding the problem.

The question involves finding the profit percentage when an item is first marked up and then sold at a discount.

Step 2: Applying the calculations.

Assume the cost price to be 100. After a 40% markup, the marked price becomes 140. A discount of 10% on the marked price gives a selling price of:

$$140 \times 0.9 = 126$$

Profit earned:

$$126 - 100 = 26$$

Profit percentage:

$$\frac{26}{100} \times 100 = 26\%$$

Step 3: Conclusion.

Thus, the correct answer is (B) 26%, since the net gain is 26% of the cost price.

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10. Statement: All roses are flowers. Some flowers are red. Conclusion: I. Some roses are red. II. All flowers are roses.

- (A) Only I follows
- (B) Only II follows
- (C) Both I and II follow
- (D) Neither I nor II follows

Correct Answer: (D) Neither I nor II follows

Solution:

Step 1: Interpreting the statements.

The given premises state that all roses are flowers and that some flowers are red.

Step 2: Testing the conclusions.

Conclusion I: "Some roses are red" is a possibility, but it does not necessarily follow from the given statements. Conclusion II: "All flowers are roses" is incorrect, as it is the converse of the universal statement and is not supported.

Step 3: Evaluating the options.

Since neither conclusion is definitely implied by the premises, neither can be accepted.

Step 4: Conclusion.

Therefore, the correct answer is (D) Neither I nor II follows.

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