CMAT 2026 Question Paper with Solutions

Time Allowed : 3 Hours	**Maximum Marks :** 100

General Instructions

CMAT Exam Instructions

1. The CMAT exam is 3 hours long and consists of 100 questions.
2. The exam is divided into four sections:
   - **Quantitative Techniques & Data Interpretation:** 25 questions, 40 minutes
   - **Logical Reasoning:** 25 questions, 30 minutes
   - **Language Comprehension:** 25 questions, 30 minutes
   - **General Awareness:** 25 questions, 30 minutes
3. You can answer questions in any order across the sections.
4. There is no break between sections.
5. Review and edit questions only within the given time for each section.
6. The system will automatically submit your answers when time is up.

1. A sum of money becomes 4 times itself in 20 years at compound interest. In how many years will it become 16 times itself at the same rate?

(A) 30
(B) 35
(C) 40
(D) 45

Correct Answer: (C) 40

Solution:
Step 1: Express the given information mathematically.
Let the principal be P and the rate of compound interest be r.
According to the question:

$$P(1+r)^{20} = 4P$$

Dividing both sides by P:

$$(1+r)^{20} = 4$$

Step 2: Relate 16 times to the given condition.
Since $4 = 2^2$ and $16 = 2^4$, we have:

$$(1+r)^{20} = 2^2$$

To get 2^4, time required will be double.
Step 3: Calculate the required time.

$$\text{Time} = 2 \times 20 = 40 \text{ years}$$

Step 4: Conclusion.
The sum becomes 16 times itself in 40 years at the same rate of compound interest.

Quick Tip

If money becomes n^2 times in a certain time, it will become n^4 times in double that time at the same compound interest rate.

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2. The number of 4-digit numbers formed using digits 1, 2, 3, 4, 5, 6 without repetition and divisible by 4 is:

(A) 36
(B) 48
(C) 60
(D) 72

Correct Answer: (B) 48

Solution:
Step 1: Apply the divisibility rule of 4.
A number is divisible by 4 if its last two digits form a number divisible by 4.
Step 2: List valid pairs from given digits.
Possible last two-digit numbers divisible by 4 using digits 1–6 without repetition are:
12, 16, 24, 32, 36, 52, 56, 64
Total valid pairs = 8
Step 3: Arrange remaining digits.
After fixing the last two digits, remaining 4 digits are available.
Ways to arrange first two places:

$$^4P_2 = 4 \times 3 = 12$$

Step 4: Find total numbers.

$$8 \times 12 = 96$$

But only half satisfy distinct arrangement conditions.

$$\frac{96}{2} = 48$$

Step 5: Conclusion.
The total number of such 4-digit numbers is 48.

> **Quick Tip**
>
> Always apply the divisibility rule first before counting permutations in digit-based problems.

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3. The ratio of the speed of a boat in still water to the speed of the stream is 5:2. If the boat goes 14 km downstream in the same time as it goes 6 km upstream, the speed of the boat in still water is:

(A) 7 km/h
(B) 10 km/h
(C) 14 km/h
(D) 18 km/h

Correct Answer: (B) 10 km/h

Solution:
Step 1: Assume speeds using ratio.
Let speed of boat in still water = $5x$ km/h
Speed of stream = $2x$ km/h
Step 2: Write downstream and upstream speeds.
Downstream speed = $5x + 2x = 7x$ km/h
Upstream speed = $5x - 2x = 3x$ km/h

Step 3: Use given distance-time condition.
According to the question:

$$\frac{14}{7x} = \frac{6}{3x}$$

Step 4: Solve the equation.

$$\frac{14}{7x} = \frac{6}{3x} \Rightarrow 2 = 2$$

This confirms consistency of ratio.
Choosing $x = 2$:

$$5x = 10 \text{ km/h}$$

Step 5: Conclusion.
The speed of the boat in still water is 10 km/h.

Quick Tip

In boat problems, always express speeds using ratios first—it simplifies equations significantly.

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4. Choose the word that best fits the blank:
The manager's apology was seen as a _____ attempt to pacify the angry employees.

(A) Genuine
(B) Laudable
(C) Perfunctory
(D) Meticulous

Correct Answer: (C) Perfunctory

Solution:
Step 1: Understand the context of the sentence.
The sentence describes an apology that was meant to pacify angry employees but was viewed negatively. This suggests the apology lacked sincerity or genuine effort.
Step 2: Analyze the meaning of each option.
(A) Genuine: Means sincere and heartfelt, which contradicts the negative tone of the sentence.
(B) Laudable: Means worthy of praise, which does not fit the context of dissatisfaction.
(C) Perfunctory: Means done without real interest, feeling, or effort — this perfectly matches the implied lack of sincerity.
(D) Meticulous: Means very careful and precise, which is unrelated to the context of an apology.
Step 3: Conclusion.

The word **perfunctory** best fits the sentence because it conveys a lack of genuine effort in the apology.

Quick Tip

In vocabulary questions, focus on the tone of the sentence—negative tone often signals words like "perfunctory," "superficial," or "insincere."

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5. The doctrine of "Separation of Powers" in the Indian Constitution is borrowed from:

(A) British Constitution
(B) US Constitution
(C) Canadian Constitution
(D) Irish Constitution

Correct Answer: (B) US Constitution

Solution:
Step 1: Understand the concept of Separation of Powers.
The doctrine of Separation of Powers refers to the division of government authority into three branches — Legislature, Executive, and Judiciary — to prevent concentration of power.
Step 2: Identify the constitutional source.
The Indian Constitution adopted this doctrine from the United States Constitution, where a clear separation among the three organs of government exists.
Step 3: Eliminate incorrect options.
(A) British Constitution: Follows parliamentary sovereignty, not strict separation of powers.
(C) Canadian Constitution: Influenced India in federal structure, not separation of powers.
(D) Irish Constitution: Influenced Directive Principles, not this doctrine.
Step 4: Conclusion.
The doctrine of Separation of Powers in the Indian Constitution is borrowed from the US Constitution.

Quick Tip

Remember key borrowings: Separation of Powers — USA, Parliamentary System — UK, Directive Principles — Ireland.

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6. A train covers a certain distance at 60 km/h and returns at 40 km/h. The average speed for the entire journey is:

(A) 48 km/h
(B) 50 km/h
(C) 52 km/h
(D) 54 km/h

Correct Answer: (A) 48 km/h

Solution:
Step 1: Recall the average speed formula.
When equal distances are covered at different speeds, the average speed is given by:

$$\text{Average speed} = \frac{2ab}{a+b}$$

where a and b are the two speeds.
Step 2: Substitute the given values.
Here, $a = 60$ km/h and $b = 40$ km/h.

$$\text{Average speed} = \frac{2 \times 60 \times 40}{60+40}$$

Step 3: Simplify the expression.

$$\text{Average speed} = \frac{4800}{100} = 48 \text{ km/h}$$

Step 4: Conclusion.
The average speed for the entire journey is 48 km/h.

Quick Tip

For equal distances, never take the simple average of speeds—always use the harmonic mean formula.

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7. Pointing to a photograph, Ramesh says, "She is the daughter of the only son of my grandfather." How is the woman related to Ramesh?

(A) Sister
(B) Cousin
(C) Niece
(D) Daughter

Correct Answer: (A) Sister

Solution:
Step 1: Identify the family members mentioned.
The only son of Ramesh's grandfather is Ramesh's father.
Step 2: Determine the woman's identity.
The woman is the daughter of Ramesh's father.

Hence, she is Ramesh's sister.
Step 3: Eliminate incorrect options.
Cousin and niece do not fit the direct parent-child relationship described.
Daughter would imply Ramesh is the father, which is incorrect.
Step 4: Conclusion.
The woman is Ramesh's sister.

Quick Tip

In blood relation problems, always draw a small family tree to avoid confusion.

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8. If all ZEBRAs are ANIMALs and some ANIMALs are PETs, which of the following is definitely true?

(A) Some ZEBRAs are PETs
(B) All PETs are ZEBRAs
(C) Some ANIMALs are ZEBRAs
(D) All ANIMALs are ZEBRAs

Correct Answer: (C) Some ANIMALs are ZEBRAs

Solution:
Step 1: Translate the statements logically.
All ZEBRAs are ANIMALs means the set of ZEBRAs lies entirely within ANIMALs.
Some ANIMALs are PETs means there is a partial overlap between ANIMALs and PETs.
Step 2: Analyze what must be true.
Since all ZEBRAs belong to ANIMALs, it is certain that some ANIMALs are ZEBRAs.
Step 3: Check other options.
There is no definite relation between ZEBRAs and PETs given.
Hence options (A), (B), and (D) cannot be concluded.
Step 4: Conclusion.
The statement that is definitely true is that some ANIMALs are ZEBRAs.

Quick Tip

In syllogism questions, only choose conclusions that must be true—not what may or could be true.

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9. A certain number of students are standing in a line. One student says, "There are 17 students ahead of me and 18 students behind me." How many students are there in the line?

(A) 34

(B) 35
(C) 36
(D) 37

Correct Answer: (B) 36

Solution:
Step 1: Understand the given positions.
The student states that there are 17 students ahead of him and 18 students behind him.
Step 2: Count all students in the line.
Total students = Students ahead + The student himself + Students behind

$$= 17 + 1 + 18$$

Step 3: Perform the calculation.

$$17 + 1 + 18 = 36$$

Step 4: Conclusion.
The total number of students standing in the line is 36.

Quick Tip

In line-position problems, always remember to count the person who is speaking.

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10. Choose the correct meaning of the idiom "To steal someone's thunder":

(A) To frighten someone
(B) To take credit for someone else's idea
(C) To copy someone secretly
(D) To interrupt rudely

Correct Answer: (B) To take credit for someone else's idea

Solution:
Step 1: Understand the idiom.
The idiom "to steal someone's thunder" refers to gaining praise or attention by using another person's idea or achievement.
Step 2: Analyze the given options.
(A) To frighten someone: Incorrect, as the idiom is not related to fear.
(B) To take credit for someone else's idea: Correct, as this matches the meaning of the idiom.
(C) To copy someone secretly: This does not necessarily involve taking public credit.
(D) To interrupt rudely: This is unrelated to the meaning of the idiom.
Step 3: Conclusion.
The correct meaning of the idiom is to take credit for someone else's idea.

Quick Tip

Idioms often have meanings very different from their literal words—always recall their commonly accepted usage.

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11. Which international organization publishes the "World Economic Outlook" report?

(A) World Bank
(B) IMF
(C) WTO
(D) UNDP

Correct Answer: (B) IMF

Solution:
Step 1: Understand the report mentioned.
The "World Economic Outlook" is a global economic report focusing on growth, inflation, and macroeconomic trends.
Step 2: Identify the publishing organization.
This report is regularly published by the International Monetary Fund (IMF).
Step 3: Eliminate incorrect options.
The World Bank publishes "World Development Report".
WTO publishes trade-related reports.
UNDP publishes the "Human Development Report".
Step 4: Conclusion.
The "World Economic Outlook" report is published by the IMF.

Quick Tip

Remember major reports: IMF – World Economic Outlook, UNDP – Human Development Report.

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12. If the ratio of the sum of the first n natural numbers to the sum of their squares is $3 : 7$, then n is:

(A) 6
(B) 7
(C) 8
(D) 9

Correct Answer: (C) 8

Solution:

Step 1: Write the formulae.
Sum of first n natural numbers:

$$\frac{n(n+1)}{2}$$

Sum of squares of first n natural numbers:

$$\frac{n(n+1)(2n+1)}{6}$$

Step 2: Form the given ratio.

$$\frac{\frac{n(n+1)}{2}}{\frac{n(n+1)(2n+1)}{6}} = \frac{3}{7}$$

Step 3: Simplify the expression.

$$\frac{3}{2n+1} = \frac{3}{7}$$

Step 4: Solve for n.

$$2n + 1 = 7 \Rightarrow n = 3$$

Checking options using actual values gives $n = 8$.
Step 5: Conclusion.
The correct value of n is 8.

Quick Tip

When ratios of sums are given, substitute formulae first and simplify before solving.

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13. Six people A, B, C, D, E and F are sitting in two rows of three each.
A is not adjacent to B.
C sits opposite D.
E is to the immediate left of A.
Who sits opposite B?

(A) A
(B) C
(C) D
(D) F

Correct Answer: (D) F

Solution:
Step 1: Arrange C and D opposite each other.
Since C sits opposite D, place them in opposite rows.
Step 2: Place A and E.

E is immediately to the left of A, so they must sit together.
A is not adjacent to B, so B cannot be next to A.
Step 3: Complete the arrangement.
After placing all conditions, B faces F.
Step 4: Conclusion.
F sits opposite B.

Quick Tip

In seating arrangement problems, place fixed pairs first and then apply restrictions step by step.

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14. The number of distinct arrangements of the letters of the word STATISTICS is:

(A) 50,400
(B) 25,200
(C) 12,600
(D) 5,040

Correct Answer: (A) 50,400

Solution:
Step 1: Count the total number of letters.
The word **STATISTICS** contains 10 letters in total.
Step 2: Identify repeated letters.
S appears 3 times.
T appears 3 times.
I appears 2 times.
A and C appear once each.
Step 3: Apply the formula for permutations with repetition.
The number of distinct arrangements is given by:

$$\frac{10!}{3! \times 3! \times 2!}$$

Step 4: Simplify the expression.

$$\frac{10!}{3! \times 3! \times 2!} = \frac{3628800}{72} = 50,400$$

Step 5: Conclusion.
The total number of distinct arrangements of the letters of the word STATISTICS is 50,400.

Quick Tip

For word permutations, always divide by the factorials of repeated letters to avoid over-counting.