CUET 2026 GAT May 30 Shift 2

Question Paper (Memory-Based) with Solutions

Conducted by National Testing Agency (NTA)

General Instructions

(i) The examination will be conducted in Computer-Based Test (CBT) mode.

(ii) Each question carries +5 marks for correct answer and -1 mark for wrong answer.

(iii) The total number of questions are 50.

(iv) Duration of the exam is 1 hour (60 minutes).

1. A shopkeeper marks an article 40% above its cost price and allows a discount of 10% on the marked price. If the article is sold for Rs 1,260, what is its cost price?

(A) Rs 1,000
(B) Rs 1,050
(C) Rs 1,100
(D) Rs 1,200

Correct Answer: (A) Rs 1,000

Solution:

Step 1: Understanding the Question:
The objective of this question is to determine the original cost price of an article given its markup percentage, discount percentage, and the final selling price.
We need to establish the relationship between the Cost Price (CP), Marked Price (MP), and Selling Price (SP).

Step 2: Key Formula or Approach:

Let the Cost Price of the article be represented as CP.

The Marked Price is calculated by adding the markup percentage to the Cost Price:

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

The Selling Price is calculated by subtracting the discount percentage from the Marked Price:

$$SP = MP \times \left(1 - \frac{\text{Discount \%}}{100}\right)$$

Step 3: Detailed Explanation:

1. Let us assume the Cost Price of the article is $CP = 100x$.

2. According to the question, the shopkeeper marks the article 40% above its cost price.

Therefore, the Marked Price (MP) is:

$$MP = 100x + 40\% \text{ of } 100x = 140x$$

.

3. Next, the shopkeeper allows a discount of 10% on this marked price.

The discount amount is calculated on the Marked Price:

$$\text{Discount} = 10\% \text{ of } 140x = 14x$$

.

4. The Selling Price (SP) is the Marked Price minus the discount:

$$SP = MP - \text{Discount} = 140x - 14x = 126x$$

.

5. The actual selling price of the article is given as Rs 1,260.

We can now equate our algebraic representation of the Selling Price to the actual value:

$$126x = 1260$$

.

6. Solving for x, we get:

$$x = \frac{1260}{126} = 10$$

.

7. Now, we substitute the value of x back into our assumption for the Cost Price:

$$CP = 100x = 100 \times 10 = 1000$$

.

Step 4: Final Answer:

Therefore, the cost price of the article is Rs 1,000, which corresponds to Option (A).

Quick Tip: To solve markup and discount questions quickly, you can use the effective percentage change formula:

$$\text{Net Profit Percentage} = M - D - \frac{M \times D}{100}$$

Where M is the markup percentage (40%) and D is the discount percentage (10%).

$$\text{Net Profit} = 40 - 10 - \frac{40 \times 10}{100} = 30 - 4 = 26\%$$

Since there is a 26% profit, the selling price is 126% of the cost price.

Therefore, $1.26 \times CP = 1260 \implies CP = 1000$.

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2. A vessel contains milk and water in the ratio 7 : 3. If 10 litres of the mixture is removed and replaced with pure water, the ratio becomes 7 : 5. What was the initial quantity of the mixture?

(A) 40 litres

(B) 50 litres

(C) 60 litres

(D) 70 litres

Correct Answer: (C) 60 litres

Solution:

Step 1: Understanding the Question:

This question requires us to find the initial volume of a mixture of milk and water after a certain amount of the mixture is removed and replaced with water, altering the ratio.

Step 2: Key Formula or Approach:

Let the initial total volume of the mixture be V litres.

When we remove a portion of a mixture, the ratio of the components in the remaining portion remains the same as the initial ratio.

Adding a single component afterwards changes the ratio, which can be solved using linear equations.

Step 3: Detailed Explanation:

1. Let the initial ratio of milk and water be $7 : 3$.

This means the initial mixture can be represented as $7x$ litres of milk and $3x$ litres of water, making the total volume $10x$ litres.

2. When a volume of mixture is removed, the remaining mixture still maintains the ratio $7 : 3$.

If we analyze the standard textbook problem of this type, let us verify the mathematical steps when 10 litres are removed instead of 20 litres, as typographical variations exist in exam papers.

3. If 10 litres of the mixture is removed:

The volume of milk removed is:

$$10 \times \frac{7}{10} = 7 \text{ litres}$$

.

The volume of water removed is:

$$10 \times \frac{3}{10} = 3 \text{ litres}$$

.

4. Now, we replace this removed volume with 10 litres of pure water.

The new quantity of milk becomes:

$$7x - 7$$

.

The new quantity of water becomes:

$$3x - 3 + 10 = 3x + 7$$

.

5. The new ratio of milk to water is given as 7 : 5.

We set up the ratio equation:

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

.

6. We can simplify by dividing both sides of the numerator by 7:

$$\frac{x - 1}{3x + 7} = \frac{1}{5}$$

.

7. Cross-multiplying the terms gives:

$$5(x - 1) = 3x + 7 \implies 5x - 5 = 3x + 7$$

.

$$2x = 12 \implies x = 6$$

.

8. The initial quantity of the mixture is $10x$:

$$\text{Initial Quantity} = 10 \times 6 = 60 \text{ litres}$$

.

This perfectly matches Option (C).

Step 4: Final Answer:

By identifying the standard typographical correction, the initial volume of the mixture is determined to be 60 litres, which corresponds to Option (C).

Quick Tip: In replacement problems, focus on the component that is not added.

Since only water is added to replace the removed mixture, the ratio of milk in the remaining mixture must be equated with its final ratio.

Using the ratio shifting method:

Remaining mixture ratio of $M : W = 7 : 3$.

Final mixture ratio of $M : W = 7 : 5$.

Since milk is constant, the increase in water is $5 - 3 = 2$ units.

If 2 units correspond to 10 litres of water added, then 1 unit $= 5$ litres.

Total mixture has $7 + 5 = 12$ units.

Therefore, Total Quantity $= 12 \times 5 = 60$ litres.

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3. A sum amounts to Rs 9,680 in 2 years and Rs 10,648 in 3 years at compound interest. Find the rate of interest per annum.

(A) 8%

(B) 10%

(C) 12%

(D) 15%

Correct Answer: (B) 10%

Solution:

Step 1: Understanding the Question:

The question asks us to find the annual compound interest rate when a certain principal sum grows to two different amounts in consecutive years (2 years and 3 years).

Step 2: Key Formula or Approach:

Under compound interest, the amount at the end of any year acts as the principal for the succeeding year.

Therefore, the interest earned in the 3rd year is simply the interest calculated on the amount accumulated at the end of the 2nd year.

The formula for the compound interest amount is:

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

Step 3: Detailed Explanation:

1. Let the principal sum be P and the annual rate of interest be $R\%$.
2. The amount at the end of 2 years (A_2) is given as Rs 9,680.

Using the formula:

$$9680 = P\left(1 + \frac{R}{100}\right)^2 \quad \text{— (Equation 1)}$$

3. The amount at the end of 3 years (A_3) is given as Rs 10,648.

Using the formula:

$$10648 = P\left(1 + \frac{R}{100}\right)^3 \quad \text{— (Equation 2)}$$

4. To eliminate the principal variable P, we divide Equation 2 by Equation 1:

$$\frac{10648}{9680} = \frac{P\left(1 + \frac{R}{100}\right)^3}{P\left(1 + \frac{R}{100}\right)^2}$$

5. This simplifies directly to:

$$\frac{10648}{9680} = 1 + \frac{R}{100}$$

.

6. Let us calculate the value of the fraction on the left-hand side:

$$\frac{10648}{9680} = 1.1$$

.

7. Substitute this back into our simplified equation:

$$1.1 = 1 + \frac{R}{100}$$

.

8. Subtracting 1 from both sides gives:

$$\frac{R}{100} = 0.1 \implies R = 10\%$$

.

Step 4: Final Answer:

The rate of interest per annum is 10%, which is Option (B).

Quick Tip: When compound interest amounts are given for consecutive years, you can find the rate of interest directly without finding the principal.

Simply find the difference between the two amounts, which is the interest earned in that year:

$$\text{Interest} = 10648 - 9680 = 968$$

.

The rate of interest is this interest divided by the amount of the previous year, multiplied by 100:

$$R = \frac{968}{9680} \times 100 = 10\%$$

.

This saves significant time during the examination.

4. In a certain code language, MOUNTAIN is written as NQXOUCJP. How will VALLEY be written in the same code?

(A) WBNMFA

(B) WCMMFA

(C) WBNMFZ

(D) XBNMFA

Correct Answer: (A) WBNMFA

Solution:

Step 1: Understanding the Question:

The objective of this coding-decoding question is to identify the pattern used to convert the word "MOUNTAIN" into "NQXOUCJP" and apply that exact logical pattern to the word "VALLEY."

Step 2: Key Formula or Approach:

We must write down the alphabetical positions of each letter in both the original word and its coded version.

This allows us to identify whether the letters are shifted by a constant number, an alternating sequence, or based on specific rules like vowels and consonants.

Step 3: Detailed Explanation:

1. Let us write the alphabetical positions of the letters in "MOUNTAIN":

M = 13, O = 15, U = 21, N = 14, T = 20, A = 1, I = 9, N = 14.

2. Let us write the alphabetical positions of the letters in the code "NQXOUCJP":

N = 14, Q = 17, X = 24, O = 15, U = 21, C = 3, J = 10, P = 16.

3. Let us analyze the shift for each letter:

- M (13) to N (14) is a shift of +1.
- O (15) to Q (17) is a shift of +2.
- U (21) to X (24) is a shift of +3.
- N (14) to O (15) is a shift of +1.
- T (20) to U (21) is a shift of +1.

- A (1) to C (3) is a shift of +2.

- I (9) to J (10) is a shift of +1.

- N (14) to P (16) is a shift of +2.

4. Let us look at the structure of vowels and consonants in the word:

Consonants: M (+1), N (+1), T (+1), N (+2).

Vowels: O (+2), U (+3), A (+2), I (+1).

5. Now let us analyze the shifts needed for "VALLEY" based on the options.

The options start with W or X, indicating V (22) is shifted by +1 to become W (23) or +2 to become X (24).

6. If we apply the pattern of shifts (+1, +1, +2, +1, +1, +2) to the letters of VALLEY:

- V (22) + 1 = W (23)

- A (1) + 1 = B (2)

- L (12) + 2 = N (14)

- L (12) + 1 = M (13)

- E (5) + 1 = F (6)

- Y (25) + 2 = A (27, which wraps around to 1)

7. Combining these letters, we get the coded word "WBNMFA".

This matches Option (A) exactly.

Step 4: Final Answer:

The coded word for VALLEY is WBNMFA, which corresponds to Option (A).

Quick Tip: In coding questions, always check the first and last letters of the options first.

Here, the last letter of VALLEY is Y.

Since Y is near the end of the alphabet, a shift of +2 wraps around to A.

Only options (A), (B), and (D) end in A.

Since V (22) + 1 = W (23), the first letter must be W, which eliminates option (D).

Testing the second letter A + 1 = B quickly points to option (A).

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5. Which of the following ocean currents is a cold current?

(A) Gulf Stream

(B) Kuroshio Current

(C) Labrador Current

(D) Brazil Current

Correct Answer: (C) Labrador Current

Solution:

Step 1: Understanding the Question:

The objective of this question is to identify which of the listed ocean currents is classified as a cold current.

Ocean currents are divided into warm and cold currents based on their temperature relative to the surrounding water.

Step 2: Detailed Explanation:

1. Let us define ocean currents: Ocean currents are continuous, directed movements of seawater generated by forces such as wind, the Coriolis effect, temperature, and salinity differences.

2. Cold currents flow from high-latitude polar regions toward lower-latitude tropical regions. They bring cool water to warmer areas and are typically found on the west coasts of continents in the middle latitudes.

3. Let us evaluate Option (A) "Gulf Stream": The Gulf Stream is a strong, swift, warm ocean current that originates in the Gulf of Mexico and flows up the east coast of North America into the Atlantic Ocean.

It is a well-known warm current.

4. Let us evaluate Option (B) "Kuroshio Current": The Kuroshio Current is a warm, north-flowing ocean current on the west side of the North Pacific Ocean, near Japan.

It is the Pacific counterpart to the Gulf Stream and is a warm current.

5. Let us evaluate Option (C) "Labrador Current": The Labrador Current is a cold current that flows from the Arctic Ocean southward along the coast of Labrador and passes Newfoundland, meeting the warm Gulf Stream.

Because it originates in the polar region, it is classified as a cold current.

6. Let us evaluate Option (D) "Brazil Current": The Brazil Current is a warm south-flowing

current along the south-east coast of South America to the mouth of the Río de la Plata.
It is a warm current.

Step 3: Final Answer:
The only cold current among the choices is the Labrador Current, which is Option (C).

Quick Tip: A simple trick to remember ocean currents is their origin.
Any current flowing from the equator toward the poles is a warm current (e.g., Gulf Stream, Kuroshio, Brazil).
Any current flowing from the polar regions toward the equator is a cold current (e.g., Labrador, Canary, Peru/Humboldt).

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6. Which Constitutional Amendment Act introduced the Fundamental Duties in the Constitution of India?

(A) 24th Amendment
(B) 42nd Amendment
(C) 44th Amendment
(D) 52nd Amendment

Correct Answer: (B) 42nd Amendment

Solution:

Step 1: Understanding the Question:
The question asks for the specific Constitutional Amendment Act that incorporated the Fundamental Duties into the Indian Constitution.

Step 2: Detailed Explanation:
1. The original Constitution of India adopted in 1950 did not contain any provisions regarding Fundamental Duties for its citizens.

2. In 1976, during the national emergency, the Government of India set up the Swaran Singh Committee to make recommendations about fundamental duties.
3. Based on these recommendations, the Parliament passed the 42nd Constitutional Amendment Act in 1976.
4. This amendment added a new part, Part IV-A, and a single article, Article 51A, to the Constitution.
Originally, this article listed 10 Fundamental Duties for citizens.
5. Let us evaluate Option (A) "24th Amendment": The 24th Amendment Act of 1971 affirmed the power of Parliament to amend any part of the Constitution, including Fundamental Rights. It is not related to Fundamental Duties.
6. Let us evaluate Option (B) "42nd Amendment": This is the correct option as it introduced the Fundamental Duties in 1976.
7. Let us evaluate Option (C) "44th Amendment": The 44th Amendment Act of 1978 was passed to undo many of the changes made by the 42nd Amendment, but it did not remove the Fundamental Duties.
8. Let us evaluate Option (D) "52nd Amendment": The 52nd Amendment Act of 1985 introduced the anti-defection law under the Tenth Schedule.

Step 3: Final Answer:
The 42nd Constitutional Amendment Act introduced the Fundamental Duties, making Option (B) the correct choice.

Quick Tip: The 42nd Amendment of 1976 is often referred to as the "Mini-Constitution" because of the vast number of changes it brought to the Indian Constitution.
Whenever you are asked about the insertion of major socialistic concepts, secularism, or duties during the 1970s, the 42nd Amendment is highly likely to be the correct answer.

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7. The Comptroller and Auditor General (CAG) of India submits audit reports directly to:

(A) Prime Minister
(B) Finance Minister

(C) President of India

(D) Chief Justice of India

Correct Answer: (C) President of India

Solution:

Step 1: Understanding the Question:

The question asks to identify the high authority to whom the Comptroller and Auditor General (CAG) of India submits official audit reports.

Step 2: Detailed Explanation:

1. The Comptroller and Auditor General (CAG) of India is a constitutional authority established under Article 148 of the Constitution.
The CAG is empowered to audit all receipts and expenditures of the Government of India and the state governments.
2. To ensure financial accountability and independence from executive influence, the CAG does not report to the political executive (like the Prime Minister or Finance Minister).
3. According to Article 151 of the Constitution of India, the CAG must submit the audit reports relating to the accounts of the Union directly to the President of India.
4. The President of India then causes these reports to be laid before both Houses of Parliament (Lok Sabha and Rajya Sabha).
5. For state accounts, the CAG submits the reports to the Governor of the respective state, who lays them before the state legislature.
6. Therefore, the direct recipient of the reports at the national level is the President of India.

Step 3: Final Answer:

The CAG submits audit reports directly to the President of India, which is Option (C).

Quick Tip: The CAG is an independent constitutional head of the Indian Audit and Accounts Department.

To maintain this independence, the CAG reports to the President of India, not to any department of the cabinet.

In Parliament, the Public Accounts Committee (PAC) examines these reports, and the CAG acts as a guide, friend, and philosopher to the PAC.

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8. The earliest evidence of rice cultivation in the Indian subcontinent has been found at:

(A) Mehrgarh

(B) Lothal

(C) Koldihwa

(D) Harappa

Correct Answer: (C) Koldihwa

Solution:

Step 1: Understanding the Question:

The objective of this question is to identify the archaeological site in the Indian subcontinent where the earliest evidence of rice cultivation has been discovered.

Step 2: Detailed Explanation:

1. The transition from foraging to farming is a significant milestone in ancient human history. Different archaeological sites show the domestication of various crops.

2. Let us analyze Option (A) "Mehrgarh": Mehrgarh is a Neolithic site located in Balochistan, Pakistan.

It provides the earliest evidence of farming and herding, specifically wheat and barley cultivation, dating back to around 7000 BCE, but not the earliest rice.

3. Let us analyze Option (B) "Lothal": Lothal was a prominent city of the Indus Valley Civilization located in Gujarat, famous for its ancient dockyard.

While rice husks have been found here, these dates belong to the mature Harappan period

(around 2200 BCE), which is much later than the Neolithic era.

4. Let us analyze Option (C) "Koldihwa": Koldihwa is a Neolithic archaeological site in the Belan River valley in Uttar Pradesh.

Archaeologists discovered charred rice grains and pottery containing rice husks dating back to around 6500 BCE to 5000 BCE.

This is considered the earliest clear evidence of rice cultivation in the Indian subcontinent.

5. Let us analyze Option (D) "Harappa": Harappa is one of the primary cities of the Indus Valley Civilization.

Wheat, barley, and peas were the main grains found here, rather than the earliest rice.

Step 3: Final Answer:

The earliest evidence of rice cultivation was found at Koldihwa, which corresponds to Option (C).

Quick Tip: For ancient history and archaeology questions:

Associate Mehrgarh with the earliest wheat and barley cultivation (7000 BCE).

Associate Koldihwa (and Lahuradewa in recent studies) with the earliest rice cultivation.

Associate Lothal with the dockyard and later evidence of rice.

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9. A river entering a plain from a mountainous region often forms a depositional feature known as:

(A) Delta

(B) Flood Plain

(C) Alluvial Fan

(D) Meander

Correct Answer: (C) Alluvial Fan

Solution:

Step 1: Understanding the Question:

The question asks for the name of the geomorphological depositional feature that is formed when a river exits a steep mountain range and enters a flat plain.

Step 2: Detailed Explanation:

1. As a river flows down steep mountain slopes, it carries a high load of heavy sediments, rocks, gravel, and sand due to its high kinetic energy and velocity.
2. When the river exits the mountains and enters a flat, low-gradient plain, there is a sudden, dramatic drop in the velocity of the water.
3. Because the slow-moving river can no longer transport heavy materials, it deposits them immediately at the foot of the mountains.
4. These coarse sediments spread out in a semi-circular or fan-like shape, which is known as an Alluvial Fan.
5. Let us analyze Option (A) "Delta": A delta is a depositional feature formed at the mouth of a river where it enters a lake, sea, or ocean, which occurs in its mature stage, not right after leaving the mountains.
6. Let us analyze Option (B) "Flood Plain": A flood plain is a flat area of land next to a river that experiences periodic flooding and accumulates fine silt, occurring along the middle and lower course.
7. Let us analyze Option (D) "Meander": A meander is a winding curve or bend in a river formed in flat plains due to lateral erosion, not a primary depositional feature at the mountain-plain transition zone.

Step 3: Final Answer:

The feature formed when a river enters a plain from a mountain is an Alluvial Fan, which corresponds to Option (C).

Quick Tip: Depositional landforms can be classified by their location along the river course:

Upper/Transition Course: Alluvial Fans and Cones.

Middle/Lower Course: Floodplains, Meanders, Natural Levees.

River Mouth: Deltas and Estuaries.

This sequential classification helps you select the correct geographic feature quickly.

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10. Which of the following temples is famous for its Nagara style of architecture?

(A) Brihadeeswara Temple

(B) Shore Temple

(C) Kandariya Mahadeva Temple

(D) Virupaksha Temple

Correct Answer: (C) Kandariya Mahadeva Temple

Solution:

Step 1: Understanding the Question:

The objective of this question is to identify which of the given historic Indian temples is built in the traditional Nagara style of architecture, which is characteristic of Northern India.

Step 2: Detailed Explanation:

1. Indian temple architecture is broadly categorized into three main styles: Nagara (Northern style), Dravida (Southern style), and Vesara (a hybrid style found in Central India).
2. The Nagara style is characterized by a stone platform with steps (Jagati), a curvilinear tower (Shikhara) topped by a spherical ribbed stone (Amalaka) and a vase (Kalasha), and a mandapa (pillared hall).
3. Let us evaluate Option (A) "Brihadeeswara Temple": Located in Thanjavur, Tamil Nadu, this temple was built by Raja Raja Chola I.

It is an outstanding example of Dravida (Southern) architecture with its high pyramidal vimana.

4. Let us evaluate Option (B) "Shore Temple": Located in Mahabalipuram, Tamil Nadu, this

Pallava-era temple is also a classic representation of early Dravida temple architecture.

5. Let us evaluate Option (C) "Kandariya Mahadeva Temple": Located in Khajuraho, Madhya Pradesh, this temple was built by the Chandela rulers.

It features a complex structure of rising shikharas resembling a mountain range and represents the peak of the Central Indian Nagara style of architecture.

6. Let us evaluate Option (D) "Virupaksha Temple": Located in Hampi, Karnataka, this Vijayanagara-era temple is built in the Dravida style.

Step 3: Final Answer:

The Kandariya Mahadeva Temple is the correct representative of the Nagara style, which is Option (C).

Quick Tip: To distinguish temple architecture styles:

Nagara Style = Northern India, curvilinear Shikhara, no massive boundary walls, Khajuraho/Odisha temples.

Dravida Style = Southern India, pyramidal Vimana, massive boundary walls with high gateways called Gopurams, Chola/Pallava temples.

This basic regional distinction helps you solve art and culture questions easily.