TANCET MBA 2026 May 9 Shift 2

Question Paper with Solutions (Memory-Based)

Conducted by Anna University

General Instructions

(i) TANCET 2026 MBA Question Paper is divided into 5 sections.

(ii) TANCET MBA Question Paper consists of 100 questions for a total of 100 marks to be attempted in 2 hours.

(iii) Physics and Chemistry and Mathematics each contain 60 questions.

(iv) As per the marking scheme, each correct answer carry 1 mark and for each incorrect answer 1/4 mark will be deducted.

1. If the price of petrol increases by 25% and Raj intends to spend only an additional 15% on petrol, by how much % will he reduce the quantity of petrol purchased?

(A) 10
(B) 12
(C) 8
(D) 6.67

Correct Answer: (C) 8

Solution:

Step 1: Understanding the Question:

The question involves finding the percentage reduction in consumption (quantity) when both the price of an item and the total expenditure on it change.

Step 2: Key Formula or Approach:

The core relationship is: Expenditure = Price × Quantity.

We can assume initial values of 100 for simplicity and calculate the new quantity based on the percentage changes in price and expenditure.

Step 3: Detailed Explanation:

Let the initial Price (P_1) be Rs. 100 per unit.

Let the initial Quantity (Q_1) be 100 units.

Initial Expenditure (E_1) $= 100 \times 100 = 10,000$.

The price increases by 25%, so the new Price (P_2) is:

$$P_2 = 100 + 25\% \text{ of } 100 = 125$$

Raj intends to spend only 15% more, so the new Expenditure (E_2) is:

$$E_2 = 10,000 + 15\% \text{ of } 10,000 = 10,000 + 1,500 = 11,500$$

Now, we find the new Quantity (Q_2) using the formula $Q_2 = \frac{E_2}{P_2}$:

$$Q_2 = \frac{11,500}{125} = 92 \text{ units}$$

The reduction in quantity is $Q_1 - Q_2 = 100 - 92 = 8$ units.

Since the initial quantity was 100, the percentage reduction is simply 8%.

Step 4: Final Answer:

He will reduce the quantity of petrol purchased by 8%.

Quick Tip: You can use the formula: New Quantity $= \frac{100+\%\text{ change in Expenditure}}{100+\%\text{ change in Price}} \times$ Old Quantity. Here, $\frac{115}{125} \times 100 = 92$, so the reduction is $100 - 92 = 8\%$.

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2. John weighs twice as much as Maria. Maria's weight is 60% of Bob's weight. Dave's weight is 50% of Lee's. Lee weighs 190% as much as John does. Which of these 5 persons weighs the least?

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(A) John

(B) Dave

(C) Maria

(D) Bob

Correct Answer: (C) Maria

Solution:

Step 1: Understanding the Question:

We are given the relative weights of five individuals and need to determine who is the lightest. We can solve this by expressing everyone's weight in terms of a single person's weight.

Step 2: Key Formula or Approach:

Set up linear equations based on the given percentages and ratios, and express all variables in terms of one base variable (e.g., Maria's weight).

Step 3: Detailed Explanation:

Let Maria's weight be represented by M.

1. John (J) weighs twice as much as Maria:

$$J = 2M$$

2. Maria's weight is 60% of Bob's (B) weight:

$$M = 0.60 \times B \implies B = \frac{M}{0.6} = \frac{10}{6}M \approx 1.67M$$

3. Lee (L) weighs 190% as much as John does:

$$L = 1.90 \times J = 1.90 \times (2M) = 3.8M$$

4. Dave (D)'s weight is 50% of Lee's:

$$D = 0.50 \times L = 0.50 \times (3.8M) = 1.9M$$

Now, let's compare all weights in terms of M:

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Maria $= 1M$

John $= 2M$

Bob $= \approx 1.67M$

Lee $= 3.8M$

Dave $= 1.9M$

Comparing the coefficients, 1 is the smallest. Therefore, Maria weighs the least.

Step 4: Final Answer:

Maria is the person who weighs the least.

Quick Tip: To avoid decimals, you can assign a convenient number to the base variable. If Maria = 60 kg, then Bob = 100 kg, John = 120 kg, Lee = 228 kg, and Dave = 114 kg. It's immediately clear Maria is the lightest.

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3. A school sold drama tickets for Rs. 100 each for donating to an orphanage. One member sold 75% of his tickets and had 80 tickets left. How many tickets did the member collect?

(A) 7,500

(B) 10,000

(C) 15,000

(D) 24,000

Correct Answer: (D) 24,000

Solution:

Step 1: Understanding the Question:

We need to find out how much the member collected.

Note: The phrasing "How many tickets did the member collect?" is a typographical error. Given the options (which are large numbers with commas, typical for currency), it implies "How much money did the member collect?". We will proceed with this logical assumption.

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Step 2: Key Formula or Approach:

First, find the total number of tickets the member initially had.

Then, calculate the number of tickets actually sold.

Finally, multiply the sold tickets by the price per ticket to find the total amount collected.

Step 3: Detailed Explanation:

Let the total number of tickets assigned to the member be T.

The member sold 75% of his tickets. Therefore, the percentage of tickets left unsold is:

$$100\% - 75\% = 25\%$$

We are given that he had 80 tickets left. So, 25% of T is equal to 80:

$$0.25 \times T = 80$$

$$T = \frac{80}{0.25} = 80 \times 4 = 320 \text{ tickets}$$

This is the total number of tickets. Now, find the number of tickets he actually sold:

$$\text{Tickets sold} = 75\% \text{ of } 320 = 0.75 \times 320 = 240 \text{ tickets}$$

Alternatively, $320 - 80 = 240$ tickets.

The price of each ticket is Rs. 100.

The total money collected by selling 240 tickets is:

$$\text{Amount collected} = 240 \times 100 = 24,000$$

Step 4: Final Answer:

The member collected an amount of Rs. 24,000.

Quick Tip: If 25% (which is 1/4) equals 80, then 75% (which is 3/4) must be $80 \times 3 = 240$. Multiply 240 by 100 to get the collection instantly.

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4. When two dice are thrown simultaneously, what is the probability that the sum of the two numbers is less than 13?

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(A) 1

(B) 1/12

(C) 1/6

(D) 1/12

Correct Answer: (A) 1

Solution:

Step 1: Understanding the Question:

The question asks for the probability of rolling a sum less than 13 when two standard six-sided dice are rolled together.

Step 2: Key Formula or Approach:

Probability is defined as the ratio of the number of favorable outcomes to the total number of possible outcomes.

Step 3: Detailed Explanation:

When two standard dice are thrown, each die has faces numbered from 1 to 6.

The maximum possible sum occurs when both dice show their maximum face value, which is 6.

$$\text{Maximum Sum} = 6 + 6 = 12$$

The possible sums range from 2 (1+1) to 12 (6+6).

Therefore, every single possible outcome of rolling two dice will result in a sum that is 12 or less.

This means that the condition "sum of the two numbers is less than 13" is always satisfied for every possible roll.

Since all 36 possible outcomes are favorable, the probability is:

$$P(\text{Sum} < 13) = \frac{36}{36} = 1$$

Step 4: Final Answer:

The probability is a certainty, which is 1.

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Quick Tip: An event that is absolutely certain to happen always has a probability of exactly 1.

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5. If a merchant offers a discount of 40% on the marked price of his goods and thus ends up selling at cost price, what was the % mark up?

(A) 28.57

(B) 40

(C) 66.66

(D) 58.33

Correct Answer: (C) 66.66

Solution:

Step 1: Understanding the Question:

A merchant applies a 40% discount on his Marked Price (MP) and ends up selling the item exactly at his Cost Price (CP). We need to find by what percentage the Marked Price was raised above the Cost Price (the mark up percentage).

Step 2: Key Formula or Approach:

Selling Price (SP) = Marked Price (MP) - Discount.

Mark up percentage $= \frac{\text{MP}-\text{CP}}{\text{CP}} \times 100$.

Step 3: Detailed Explanation:

Let the Cost Price (CP) of the goods be Rs. 100.

The merchant sells the goods exactly at the cost price, so the Selling Price (SP) is also Rs. 100.

He offers a discount of 40% on the Marked Price (MP).

$$\text{SP} = \text{MP} - (40\% \text{ of MP})$$

$$\text{SP} = \text{MP} \times (1 - 0.40)$$

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$$SP = 0.60 \times MP$$

Substitute the value of SP:

$$100 = 0.60 \times MP$$

$$MP = \frac{100}{0.60} = \frac{1000}{6} = \frac{500}{3} \approx 166.66$$

The mark up is the difference between MP and CP:

$$\text{Mark up} = MP - CP = 166.66 - 100 = 66.66$$

Since we assumed the CP to be 100, the mark up amount is numerically equal to the mark up percentage.

Step 4: Final Answer:

The % mark up was 66.66%.

Quick Tip: If SP = CP, then the discount fraction must balance the markup fraction. A discount of 40% (2/5) on MP means SP is 3/5 of MP. Therefore, MP is 5/3 of SP (and CP). $5/3 = 1 + 2/3$, so the markup is 2/3 or 66.66%.

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6. If x and y are positive integers then the following is always true?

2x - 3y < 0

(1) x = (y - 1)

(2) x > y

(A) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient

(B) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient

(C) BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient

(D) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data are needed

Correct Answer: (A) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient

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Solution:

Step 1: Understanding the Question:

This is a Data Sufficiency question. We need to determine if we can conclusively answer "Yes" or "No" to the question "Is $2x - 3y < 0$ ALWAYS true?" given that x and y are positive integers $(1, 2, 3, \ldots)$, using the provided statements.

Step 2: Detailed Explanation:

Let's evaluate Statement (1) alone:

Statement (1): $x = y - 1$

Substitute this value of x into the expression $2x - 3y$:

$$2(y-1) - 3y = 2y - 2 - 3y = -y - 2$$

Since x is a positive integer ($x \geq 1$), we know that $y - 1 \geq 1 \implies y \geq 2$.

For any value of $y \geq 2$, the expression $-y - 2$ will always be a negative number.

Therefore, $-y - 2 < 0$ is ALWAYS true.

This means Statement (1) alone is sufficient to answer the question with a definitive "Yes".

Let's evaluate Statement (2) alone:

Statement (2): $x > y$

Let's test with different positive integer values.

Case A: Let $y = 1$ and $x = 2$. (Satisfies $x > y$)

$$2x - 3y = 2(2) - 3(1) = 4 - 3 = 1$$

Here, $1 < 0$ is False.

Case B: Let $y = 3$ and $x = 4$. (Satisfies $x > y$)

$$2x - 3y = 2(4) - 3(3) = 8 - 9 = -1$$

Here, $-1 < 0$ is True.

Because we can get both a "False" and a "True" answer depending on the numbers chosen, Statement (2) alone is NOT sufficient.

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Step 3: Final Answer:

Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

Quick Tip: In Data Sufficiency, proving a "No" is just as sufficient as proving a "Yes". However, if substituting values gives a "Yes" in one case and a "No" in another, the statement is insufficient.

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7. The prices of essential commodities has risen unprecedentedly, causing a lot of hardship to the common man.

(A) has rosen

(B) has rising

(C) have risen

(D) No error

Correct Answer: (C) have risen

Solution:

Step 1: Understanding the Question:

This is a sentence improvement question focusing on English grammar, specifically subject-verb agreement and correct verb forms.

Step 2: Detailed Explanation:

In the given sentence, the subject of the clause is "The prices".

Because "prices" is a plural noun, the auxiliary verb that follows it must also be in its plural form to maintain proper subject-verb agreement.

The sentence incorrectly uses the singular verb "has". The correct plural auxiliary verb is "have".

Furthermore, the present perfect tense requires the past participle of the main verb. The past participle of the verb "to rise" is "risen".

Therefore, the grammatically incorrect phrase "has risen" must be replaced with the correct

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phrase "have risen".

Step 3: Final Answer:

The correct replacement is "have risen".

Quick Tip: Always identify the true subject of the sentence. Here, the subject is "prices" (plural), not "commodities" (which is the object of the preposition "of"). Plural subjects require plural verbs.

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8. When he heard the siren, he started running to the door.

(A) to run the door

(B) running from the door

(C) running towards the door

(D) No error

Correct Answer: (C) running towards the door

Solution:

Step 1: Understanding the Question:

This is a sentence improvement question designed to test precision in preposition usage regarding direction and motion.

Step 2: Detailed Explanation:

While "running to the door" is not strictly grammatically incorrect in casual conversation, sentence improvement questions often seek the most precise phrasing.

The preposition "to" typically implies reaching a specific destination or endpoint.

The preposition "towards" specifically indicates the direction of movement, without necessarily implying that the destination is reached.

In an emergency situation (hearing a siren), the immediate action is moving in the direction of an exit. "Running towards the door" paints a much more accurate picture of the sudden

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directional action taken in response to the siren.
Option (A) is grammatically incorrect.
Option (B) completely changes the logical meaning of the sentence.
Therefore, "running towards the door" is considered a structural improvement over the original phrasing.

Step 3: Final Answer:

The improved phrase is "running towards the door".

Quick Tip: Use "to" when the focus is on the final destination. Use "towards" when the focus is on the direction of motion itself.

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9. A certain sum of money is borrowed by a person at 8% simple interest for 4 years. If he has to pay Rs. 7834 as interest, what is the total amount he has to pay?

(A) Rs. 23073
(B) Rs. 30459
(C) Rs. 37853
(D) Rs. 14768

Correct Answer: (B) Rs. 30459

Solution:

Step 1: Understanding the Question:

We need to calculate the total amount (Principal + Interest) paid at the end of a 4-year period given the simple interest rate and the total interest paid.
Note: Based on the provided options, there is a typographical error in the question text. The interest amount should logically be Rs. 7384 (a common transposition error from 7834) to match the given choices. The solution below assumes this intended value.

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Step 2: Key Formula or Approach:

Simple Interest (SI) formula: $\text{SI} = \frac{P \times R \times T}{100}$

Total Amount (A) formula: $A = P + \text{SI}$

Where P is Principal, R is Rate, and T is Time.

Step 3: Detailed Explanation:

Given values (assuming corrected interest):

$\text{SI} = \text{Rs. } 7384$

$R = 8\%$

$T = 4$ years

First, find the Principal (P):

$$7384 = \frac{P \times 8 \times 4}{100}$$

$$7384 = \frac{32P}{100}$$

$$P = \frac{7384 \times 100}{32}$$

$$P = 230.75 \times 100 = 23075$$

So, the Principal borrowed is Rs. 23,075.

Now, calculate the total amount to be paid back:

$$\text{Total Amount} = \text{Principal} + \text{Simple Interest}$$

$$\text{Total Amount} = 23075 + 7384 = 30459$$

This matches option (B).

(If we strictly used 7834, the Principal would be 24481.25 and the Amount would be 32315.25, which is not among the options.)

Step 4: Final Answer:

The total amount he has to pay is Rs. 30459.

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Quick Tip: Simple Interest is directly proportional to the Principal. The total interest is $8\% \times 4 = 32\%$ of the Principal. Therefore, the Principal is $\frac{100}{32}$ of the interest, and the Total Amount is $\frac{132}{32}$ of the interest.

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10. If PUNCTUAL can be written as 47819765, how can LUNA be written in that code?

(A) 7586

(B) 5678

(C) 5786

(D) 5867

Correct Answer: (C) 5786

Solution:

Step 1: Understanding the Question:

This is a direct letter-coding problem where each letter in a given word is assigned a specific single-digit number. We need to identify the digits assigned to the letters of "LUNA" to find its code.

Step 2: Detailed Explanation:

Let's map each letter of the word "PUNCTUAL" to its corresponding digit in the code "47819765":

P → 4

U → 7

N → 8

C → 1

T → 9

U → 7 (Notice that 'U' is consistently coded as 7, confirming a direct mapping)

A → 6

L → 5

Now, we extract the codes for the letters in the word "LUNA":

L → 5

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U → 7

N → 8

A → 6

Combining these digits in order, we get the code for LUNA as 5786.

Step 3: Final Answer:

The code for LUNA is 5786.

Quick Tip: In coding-decoding questions, always check for repeating letters in the source word (like 'U' in PUNCTUAL). If they map to the same digit, it confirms that the question uses direct position-based substitution.

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11. Which is odd?

Tortoise, Crab, Frog, Fish

(A) Tortoise

(B) Crab

(C) Frog

(D) Fish

Correct Answer: (D) Fish

Solution:

Step 1: Understanding the Question:

This is a classification (odd one out) problem based on the biological characteristics and natural habitats of the given animals.

Step 2: Detailed Explanation:

Let us evaluate the survival environments of each animal:

- **Tortoise:** A reptile that can live on land. (Its aquatic counterpart is the turtle, but both can

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breathe air and survive outside water).
- **Crab:** A crustacean that is amphibious in nature, capable of surviving both in water and on land.
- **Frog:** An amphibian that lives both in water and on land.
- **Fish:** A strictly aquatic creature equipped with gills, which can only survive in water and dies when kept on land.

Therefore, Tortoise, Crab, and Frog share a common characteristic: they can all survive on land. The Fish is the only organism that is exclusively aquatic.

Step 3: Final Answer:
Fish is the odd one out.

Quick Tip: When classifying animals in logical reasoning, first look for the most basic survival traits: habitat (land/water/air), diet (herbivore/carnivore), or reproduction (mammal/egg-laying).

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12. Which is odd?
Jeevan Raksha Padak, ParamVir Chakra, Padma Bhusan, Bharat Ratna

(A) Jeevan Raksha Padak
(B) ParamVir Chakra
(C) Padma Bhusan
(D) Bharat Ratna

Correct Answer: (B) ParamVir Chakra

Solution:

Step 1: Understanding the Question:
This is an odd-one-out question based on General Knowledge regarding the honors and awards system of the Republic of India.

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Step 2: Detailed Explanation:

Let us categorize each of the given Indian awards:

- **Jeevan Raksha Padak:** A civilian lifesaving award given for courageous acts in saving a person's life.
- **Padma Bhusan (Padma Bhushan):** The third-highest civilian award in India, awarded for distinguished service of a high order.
- **Bharat Ratna:** The highest civilian award in India, conferred in recognition of exceptional service or performance of the highest order.
- **ParamVir Chakra:** The highest military gallantry award in India, awarded for displaying distinguished acts of valor during wartime.

The clear distinction here is the nature of the recipient and the award category. Jeevan Raksha Padak, Padma Bhushan, and Bharat Ratna are all fundamentally **Civilian awards**. The Param Vir Chakra is exclusively a **Military award**.

Step 3: Final Answer:

ParamVir Chakra is the odd one out.

Quick Tip: Memorize the basic hierarchy of Indian honors: Military wartime (Param Vir, Maha Vir, Vir Chakra), Military peacetime (Ashoka, Kirti, Shaurya), and Civilian (Bharat Ratna, Padma Vibhushan, Padma Bhushan, Padma Shri).

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13. A, B, C and D are to be seated in a row. But C and D cannot be together. Also B cannot be at the third place. Which of the following must be false?

(A) A is at the first place

(B) A is at the second place

(C) A is at the third place

(D) A is at the fourth place

Correct Answer: (A) A is at the first place

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Solution:

Step 1: Understanding the Question:

This is a logical seating arrangement problem. We have 4 individuals (A, B, C, D) and 4 seats (1, 2, 3, 4). We must evaluate the given options against two strict constraints to find the one that creates an impossible scenario.

Constraints:

1. C and D cannot sit adjacent to each other.
2. B cannot occupy the 3rd seat (Seat 3 $\neq$ B).

Step 2: Detailed Explanation:

Let's test each option to see if a valid seating arrangement can be formed:

Evaluating Option (A): A is at the first place

Arrangement so far: [A] [_] [_] [_]

Remaining people: B, C, D. Remaining seats: 2, 3, 4.

To satisfy Constraint 1 (C and D not together), they must be separated by at least one seat.

The only way to place them in seats 2, 3, and 4 without them being adjacent is to place them in Seat 2 and Seat 4.

If C and D occupy Seats 2 and 4, then Seat 3 is the only one left for B.

However, Constraint 2 strictly states that B cannot be at the 3rd place.

This creates a forced contradiction. Therefore, A cannot be at the first place. This statement **must be false**.

Evaluating Option (B): A is at the second place (Verification)

Arrangement: [_] [A] [_] [_]

To keep C and D apart, they can sit at Seat 1 and Seat 3, or Seat 1 and Seat 4.

If C and D take 1 and 3, B is forced to Seat 4. Valid arrangements: [C, A, D, B] or [D, A, C, B].

Since a valid arrangement exists, this statement can be true.

Evaluating Option (C): A is at the third place (Verification)

Arrangement: [_] [_] [A] [_]

To keep C and D apart, they must sit at Seat 1 and Seat 4.

This leaves Seat 2 for B. Valid arrangements: [C, B, A, D] or [D, B, A, C].

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Since a valid arrangement exists, this statement can be true.

Evaluating Option (D): A is at the fourth place (Verification)

Arrangement: [_] [_] [_] [A]

To keep C and D apart, they must sit at Seat 1 and Seat 3.

This leaves Seat 2 for B. Valid arrangements: [C, B, D, A] or [D, B, C, A].

Since a valid arrangement exists, this statement can be true.

Step 3: Final Answer:

The statement that must be false is "A is at the first place".

Quick Tip: In "must be false" logic puzzles, assume the option is true and try to force a valid arrangement. The moment you hit an unavoidable contradiction with the rules, you have found your answer.

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