CUET 2024 General Test Question Paper With Solutions - Set C

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1. Who is the author of the book "Kashmir : Travels in Paradise on Earth"?

Options:

1. Romesh Bhattacharji

2. Vikram Seth

3. Jhumpa Lahiri

4. Shamas Faqir

Correct Answer: 1. Romesh Bhattacharji

Solution: The book "Kashmir: Travels in Paradise on Earth" was authored by Romesh Bhattacharji, known for his explorations of Kashmir.

Quick Tip

Remembering authors and titles of notable books can aid in general knowledge and exams.

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2. Which state became the 25th state of India on 30th May, 1987?

Options:

1. Telangana

2. Haryana

3. Gujarat

4. Goa

Correct Answer: 4. Goa

Solution: Goa was the 25th state to join the Indian Union on May 30, 1987.

Quick Tip

Remember key historical dates for Indian states' formations for competitive exams.

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3. Which of these temples is not located in Uttarakhand?

Options:

1. Nanda Devi

2. Surkanda Devi

3. Kalighat Kali

4. Tungnath

Correct Answer: 3. Kalighat Kali

Solution: Kalighat Kali temple is located in Kolkata, West Bengal, not in Uttarakhand.

Quick Tip

Associating temple names with their states can help in geography and culture questions.

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4. Which of these states do not share a border with Chhattisgarh?

Options:

1. Karnataka

2. Madhya Pradesh

3. Telangana

4. Jharkhand

Correct Answer: 1. Karnataka

Solution: Karnataka does not share a border with Chhattisgarh; it is separated by Maharashtra.

Quick Tip

Knowing state borders can help in both geography and general knowledge sections.

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5. PQR is a triangle. The bisectors of the internal angle $\angle Q$ and external angle $\angle R$ intersect at M. If $\angle QMR = 40^\circ$, then $\angle P$ is:

Options:

1. 75°

2. 60°

3. 65°

4. 80°

Correct Answer: 4. 80°

Solution: Using angle properties of triangles and intersecting angle bisectors, we determine $\angle P = 80^\circ$.

Quick Tip

For problems involving angle bisectors, apply triangle angle sum properties and special angle relations.

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6. What is the name of the alloy which is obtained after mixing mercury with another metal?

Options:

1. Solder

2. Amalgam

3. Duralumin

4. Pewter

Correct Answer: 2. Amalgam

Solution: An amalgam is an alloy formed when mercury is mixed with another metal.

Quick Tip

Amalgams are typically used in dental fillings and other applications requiring soft metal alloys.

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7. What is the name of the scheme launched by the Defence Minister at DefConnect 2024 to foster innovation in defence technology?

Options:

1. INNOVATE

2. TECHBOOST

3. ADITI

4. DEFEND

Correct Answer: 3. ADITI

Solution: The scheme launched to foster innovation in defense technology is named ADITI, introduced at DefConnect 2024.

Quick Tip

Stay updated on major defense initiatives for current affairs and general knowledge.

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8. Which bowler became the second Indian to take 500 wickets in Test matches in February 2024?

Options:

1. Harbhajan Singh

2. Ravichandran Ashwin

3. Ishant Sharma

4. Mohammed Shami

Correct Answer: 2. Ravichandran Ashwin

Solution: Ravichandran Ashwin achieved 500 wickets in Test cricket in February 2024, becoming the second Indian after Anil Kumble.

Quick Tip

Memorize recent records and achievements in sports for current affairs.

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9. Which one of the following rivers is not included in 'Panchnad – The five rivers of

Punjab'?

Options:

1. The Luni

2. The Jhelum

3. The Chenab

4. The Sutlej

Correct Answer: 1. The Luni

Solution: The Luni is not one of the five rivers traditionally associated with the Punjab region. The five rivers are Jhelum, Chenab, Ravi, Beas, and Sutlej.

Quick Tip

The name Punjab derives from "Panchnad," referring to the five rivers flowing through the region.

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10. Where was the 15th BRICS Summit-2023 organised?

Options:

1. South Africa

2. Brazil

3. Russia

4. China

Correct Answer: 1. South Africa

Solution: The 15th BRICS Summit was hosted by South Africa in 2023, where leaders discussed strategic cooperation among the BRICS nations.

Quick Tip

Stay updated with recent international summits and their host countries for current affairs.

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11. Match List I with List II :

List I (Indian Notes)	List II (Pictures)
(A) Rs. 10	(I) Ellora Caves
(B) Rs. 100	(II) Konark, Sun Temple
(C) Rs. 500	(III) Rani Ki Vav
(D) Rs. 20	(IV) Red Fort

Choose the correct answer from the options below:

Options:

1. (A) - (II), (B) - (III), (C) - (I), (D) - (IV)

2. (A) - (III), (B) - (I), (C) - (IV), (D) - (II)

3. (A) - (I), (B) - (IV), (C) - (III), (D) - (II)

4. (A) - (II), (B) - (III), (C) - (IV), (D) - (I)

Correct Answer: 4. (A) - (II), (B) - (III), (C) - (IV), (D) - (I)

Solution: The pictures on the currency notes are: Rs. 10 - Konark Sun Temple, Rs. 100 - Rani Ki Vav, Rs. 500 - Red Fort, and Rs. 20 - Ellora Caves.

Quick Tip

For currency notes, associate landmarks with their respective denominations for easy recall.

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12. From the given options, name the longest river in Asia.

Options:

1. Yangtze River

2. Lena River

3. Indus River

4. Brahmaputra River

Correct Answer: 1. Yangtze River

Solution: The Yangtze River in China is the longest river in Asia, stretching over 6,300 km.

Quick Tip

Remember that the Yangtze is the longest river in Asia and the third longest in the world.

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13. Arrange the following important days according to their chronological order from January to December:

A. Indian Airforce Day

B. Kargil Victory Day

C. World Soil Day

D. National Youth Day

E. International Women's Day

Options:

1. A – D – B – C – E

2. D – E – B – A – C

3. D – B – E – C – A

4. E – A – D – C – B

Correct Answer: 3. D – B – E – C – A

Solution: The correct order by month is: National Youth Day (January), Kargil Victory Day (July), International Women's Day (March), World Soil Day (December), Indian Airforce Day (October).

Quick Tip

Chronological order of significant national days can be key in general awareness sections.

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14. Which Railway Minister from the following resigned immediately after the 1956 Ariyalur train accident?

Options:

1. Jagjivan Ram

2. Lal Bahadur Shastri

3. S.K. Patil

4. Lalit Narayan Mishra

Correct Answer: 2. Lal Bahadur Shastri

Solution: Lal Bahadur Shastri resigned from his position as Railway Minister after the 1956 Ariyalur train accident as a matter of moral responsibility.

Quick Tip

Knowing significant political events and figures in Indian history helps in general awareness sections.

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15. Which of the following countries won the FIH Hockey Men's World Cup 2023?

Options:

1. Germany

2. Netherlands

3. Belgium

4. Australia

Correct Answer: 1. Germany

Solution: Germany won the FIH Hockey Men's World Cup 2023, showcasing a remarkable performance in the tournament.

Quick Tip

Keeping track of recent sports achievements enhances your general knowledge and current affairs preparation.

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16. Who won the title of the 6th Khelo India Youth Games 2024?

Options:

1. Haryana

2. Maharashtra

3. Karnataka

4. Tamil Nadu

Correct Answer: 2. Maharashtra

Solution: Maharashtra won the 6th Khelo India Youth Games 2024 with excellent performances across multiple sports categories.

Quick Tip

Keep track of winners in significant national sporting events for competitive exams.

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17. In January 2024, which Indian state was the host of the Purple Fest, the first inclusive festival for persons with disabilities?

Options:

1. Goa

2. Gujarat

3. Kerala

4. Maharashtra

Correct Answer: 1. Goa

Solution: Goa hosted the Purple Fest in January 2024, promoting inclusivity and accessibility for persons with disabilities.

Quick Tip

Awareness of unique cultural and social events can be an asset in general knowledge sections.

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18. In December 2023, Sultan Haitham bin Tarik was on a State visit to India. He is the Sultan and Prime Minister of which country?

Options:

1. Iran

2. Yemen

3. Qatar

4. Oman

Correct Answer: 4. Oman

Solution: Sultan Haitham bin Tarik of Oman visited India in December 2023, strengthening bilateral ties between the two nations.

Quick Tip

Tracking recent diplomatic visits is crucial for current affairs and international relations topics.

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19. Which of the following states launched the 'Mukhyamantri Seekho-Kamao Yojana' (MMSKY) in 2023?

Options:

1. Uttar Pradesh

2. Himachal Pradesh

3. Madhya Pradesh

4. Bihar

Correct Answer: 3. Madhya Pradesh

Solution: Madhya Pradesh launched the 'Mukhyamantri Seekho-Kamao Yojana' (MMSKY) in 2023 to enhance skill development and employability.

Quick Tip

State-level initiatives focusing on skill development are frequently tested in governance and policy-related sections.

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20. Rabindranath Tagore had renounced his knighthood because ____.

Options:

1. of execution of Bhagat Singh

2. of Chauri-Chaura incident

3. he wanted to join the Congress

4. of the Jallianwala Bagh tragedy

Correct Answer: 4. of the Jallianwala Bagh tragedy

Solution: Rabindranath Tagore renounced his knighthood in protest against the Jallianwala Bagh massacre in 1919.

Quick Tip

Major historical events tied to key personalities are essential knowledge for competitive exams.

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21. In which of the following cities of Madhya Pradesh was the 17th edition of Pravasi Bharatiya Divas (PBD) organized?

Options:

1. Bhopal

2. Indore

3. Jabalpur

4. Gwalior

Correct Answer: 2. Indore

Solution: Indore hosted the 17th Pravasi Bharatiya Divas in January 2024, celebrating the contributions of the Indian diaspora.

Quick Tip

Keep track of key locations for major national and international events.

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22. In the joint military exercise 'Desert Cyclone', 2024, which two nations collaborated to enhance interoperability through knowledge exchange?

Options:

1. India and Qatar

2. India and Vietnam

3. India and Australia

4. India and UAE

Correct Answer: 4. India and UAE

Solution: India and UAE collaborated in the 'Desert Cyclone' military exercise in 2024, focusing on defense interoperability.

Quick Tip

Memorizing recent joint military exercises is helpful for defense-related current affairs.

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23. Who among the following wrote the book "Guilty Men of India's Partition"?

Options:

1. Mahatma Gandhi

2. Lala Har Dayal

3. Lala Lajpat Rai

4. Ram Manohar Lohia

Correct Answer: 4. Ram Manohar Lohia

Solution: Ram Manohar Lohia authored "Guilty Men of India's Partition," discussing perspectives on the partition of India.

Quick Tip

Notable books and their authors are often tested in general awareness sections.

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24. Who authored the famous novels, 'The Fountainhead' and 'Atlas Shrugged'?

Options:

1. H.G. Wells

2. Ayn Rand

3. George Orwell

4. J.M. Barrie

Correct Answer: 2. Ayn Rand

Solution: Ayn Rand wrote 'The Fountainhead' and 'Atlas Shrugged,' both of which highlight her philosophy of objectivism.

Quick Tip

Familiarity with influential authors and their works is key for literature-related questions.

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25. The Bhoodan-Gramadan Movement started by Vinoba Bhave is also known as ____.

Options:

1. Civil Revolution

2. Green Revolution

3. Bloodless Revolution

4. White Revolution

Correct Answer: 3. Bloodless Revolution

Solution: The Bhoodan-Gramadan Movement, initiated by Vinoba Bhave, is known as the Bloodless Revolution, aiming at peaceful land redistribution.

Quick Tip

Relating movements with their leaders and goals is critical for history sections.

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26. 23 January, the birth anniversary of Netaji Subhas Chandra Bose, is celebrated every year as ____.

Options:

1. Shaheed Diwas

2. Parakram Diwas

3. National Youth Day

4. Hindi Diwas

Correct Answer: 2. Parakram Diwas

Solution: 23 January is celebrated as Parakram Diwas in honor of Netaji Subhas Chandra

Bose's legacy.

Quick Tip

Important dates and the personalities associated with them are crucial for general knowledge.

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27. 23 December, the birthday of former Prime Minister Chaudhary Charan Singh, is celebrated every year as ____.

Options:

1. Samvidhan Diwas

2. National Milk Day

3. National Farmers' Day

4. Good Governance Day

Correct Answer: 3. National Farmers' Day

Solution: 23 December is celebrated as National Farmers' Day to honor Chaudhary Charan Singh's contribution to agriculture and farmers' welfare.

Quick Tip

Linking notable personalities to their contributions can enhance your exam preparation.

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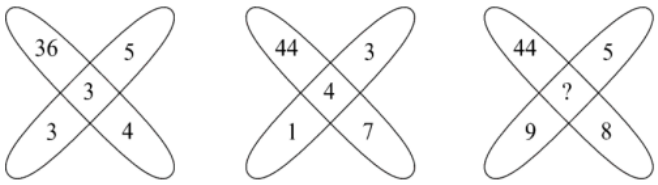
28. Find the missing number in the following figure.



Options:

1. 3

2. 4

3. 1

4. 2

Correct Answer: 3. 1

Solution: Based on the pattern in the figure, the missing number is determined to be 1 through arithmetic calculations.

Quick Tip

For visual puzzles, focus on numerical patterns and relationships between the elements.

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29. In the given analogy, choose the number which will replace the question mark (?):

WSH : 5 :: KMJ : ?

Options:

1. 3

2. 7

3. 5

4. 2

Correct Answer: 3. 5

Solution: Analyze the positions of letters in the alphabet to calculate the corresponding number. For KMJ, the resulting value is 5.

Quick Tip

For analogies involving letters, focus on their alphabetical positions and consistent patterns.

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30. From the given options, at what angle are the hands of a clock inclined at 10 minutes to 2 (Smaller angle)?

Options:

1. 115°

2. 65°

3. 120°

4. 112°

Correct Answer: 2. 65°

Solution: Use the clock angle formula:

$$\text{Angle} = |30 \times \text{Hour} - 5.5 \times \text{Minutes}|$$

Substituting Hour $= 2$ and Minutes $= 10$, the angle is calculated to be 65°.

Quick Tip

Use the clock angle formula to quickly calculate angles between the hour and minute hands.

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31. If 1st January, 2001 was a Monday, what was the day on 26th January, 2003?

Options:

1. Saturday

2. Sunday

3. Monday

4. Wednesday

Correct Answer: 2. Sunday

Solution: Counting the days from 1st January 2001 to 26th January 2003, taking leap years into account, we find the day is Sunday.

Quick Tip

For date-related problems, account for leap years and calculate the day progression modulo 7.

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32. What comes in place of the question mark (?) in the series given below?

B2D, C3F, E5J, G7N, ?, M13Z

Options:

1. I9R

2. K11Z

3. K9W

4. K11V

Correct Answer: 1. I9R

Solution: Letters and numbers in the series follow consistent incremental patterns. The correct next term is I9R.

Quick Tip

For series questions, analyze each component (letters and numbers) independently for patterns.

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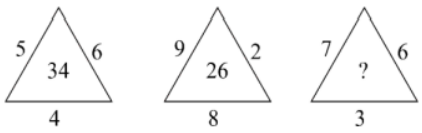
33. Which one will replace the question mark (?) in the following figure?



Options:

1. 40

2. 43

3. 44

4. 45

Correct Answer: 2. 43

Solution: Observing the numerical relationships in the figure, the missing number is calculated to be 43.

Quick Tip

For visual patterns, use arithmetic relationships between surrounding and central numbers.

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34. Take the given statements to be true even if they seem to be at variance with commonly known facts. Then decide which of the given conclusions logically follow the given statements.

Statements:

0% chairs are tables.

All computers are chairs.

Some books are tables.

Conclusions:

I. Not a single table is a computer.

II. Some books are not chairs.

Options:

1. Only conclusion I follows.

2. Only conclusion II follows.

3. Both conclusions I and II follow.

4. Neither conclusion I nor II follows.

Correct Answer: 3. Both conclusions I and II follow.

Solution: Evaluate the logical structure using Venn diagrams. Both conclusions follow from the statements.

Quick Tip

For syllogisms, diagramming relationships helps evaluate logical conclusions effectively.

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35. Read the directions carefully and give the answer from the given options.

P, Q, R, S, T, K, L, M, and N are sitting around a circle facing the centre.

K is 4th to the right of P and P is 3rd to the right of Q.

N is 4th to the left of Q and 3rd to the right of S.

R is 2nd to the right of M and M is the immediate neighbour of P.

T is 2nd to the left of L.

Who is to the immediate left of K?

Options:

1. R

2. T

3. Q

4. M

Correct Answer: 2. T

Solution: Based on the seating arrangement, T is the person to the immediate left of K.

Quick Tip

Draw the arrangement for clarity when solving seating or positional problems.

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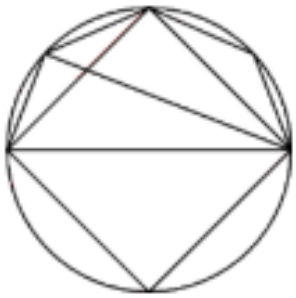
36. Find the number of triangles in the given figure.



Options:

1. 8

2. 10

3. 12

4. 14

Correct Answer: 4. 14

Solution: Count all triangles, starting from the smallest and combining for larger ones. The total is 14.

Quick Tip

Systematically count shapes by starting small and building up to larger combinations.

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37. Rakesh is 17th from the right and Ankit is 15th from the left in a line of students. If they interchange their places, the position of Ankit becomes 19th from the left. How many students are there in the line?

Options:

1. 36

2. 35

3. 34

4. 33

Correct Answer: 1. 36

Solution: Use the formula:

$$\text{Total students} = \text{Position of Ankit from left} + \text{Position of Rakesh from right} - 1$$

Substitute the values to find the total as 36.

Quick Tip

For position-based problems, use formulas to relate left and right positions.

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38. In a family, Bhanu is the father of Kamlesh. Bhanu has only two children. Kamlesh is the brother of Ritu. Ritu is the daughter of Santosh. Aryan is the grandson of Santosh. Sunny is the father of Aryan. How is Sunny related to Bhanu?

Options:

1. Son-in-law

2. Son

3. Nephew

4. Brother-in-law

Correct Answer: 1. Son-in-law

Solution: Drawing the family tree reveals that Sunny is Bhanu's son-in-law.

Quick Tip

Family tree diagrams simplify complex relationship questions.

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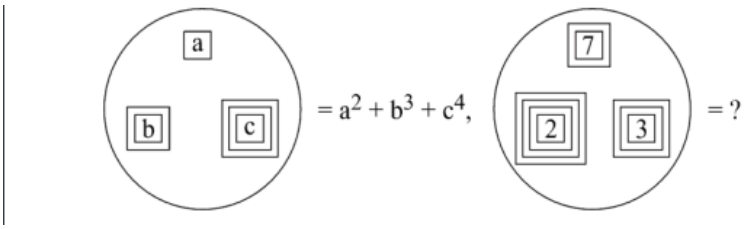
39. Identify the number that will replace the question mark in the second equation based on the relationship represented in the first equation.



Options:

1. 420

2. 92

3. 602

4. 456

Correct Answer: 2. 92

Solution: Analyzing the pattern between numbers reveals that 92 is the missing value.

Quick Tip

For numerical patterns, check for consistent arithmetic or geometric relationships.

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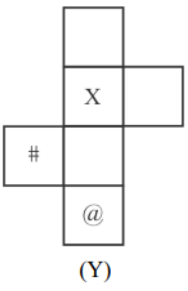
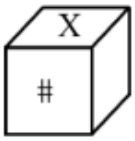
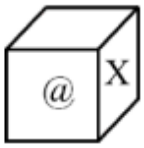
40. Choose the box that is similar to the box formed from the given sheet of paper (Y).

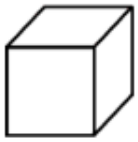


(Y)

Options:

1. (1) 

2. (2) 

3. (3) 

4. (4) 

Correct Answer: 2. The box formed will have the arrangement shown in option 2, where "@" is adjacent to "X."

Solution: To determine the correct box, visualize how the paper would fold. Observing the layout of symbols: - "X" and "" are on opposite sides, so they cannot appear on adjacent faces. - "@" is adjacent to "X," which matches the configuration in option 2.

Quick Tip

For questions on paper folding, try to mentally fold the layout or sketch the resulting arrangement if possible.

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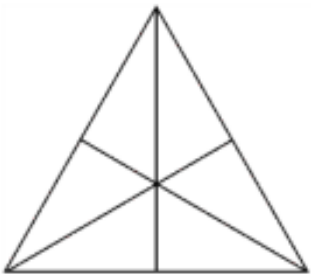
41. Find the number of triangles in the given figure.



Options:

1. 14

2. 15

3. 16

4. 18

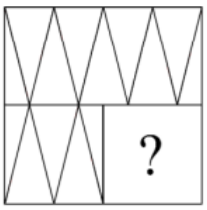
Correct Answer: 3. 16

Solution: Count all possible triangles in the figure systematically. Starting from smaller sections and moving to larger combinations, the total number of triangles is 16.

Quick Tip

For counting shapes, ensure you methodically include all possible combinations to avoid missing any.

42.Which option figure will complete the pattern in the given figure?



Options:

1. (1) 

2. (2) 

3. (3) 

4. (4) 

Correct Answer: 2

Solution: Observing the overall pattern in the main figure, we can see that each section has a consistent arrangement of triangles. To complete the pattern, the missing section should have a similar arrangement of triangles to maintain symmetry. After examining each option, we find that Option (2) aligns perfectly with the rest of the pattern, making it the correct choice.

Quick Tip

In pattern completion questions, look for repeating shapes, symmetry, and orientation to find the missing piece.

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43. A woman leaves her home. She walks 40 m in North-West direction and then 90 m in South-East direction. Then, she moves 30 m in North direction. How far is she now from her initial position?

Options:

1. 30 m

2. 60 m

3. 50 m

4. 40 m

Correct Answer: 3. 50 m

Solution: Using vector analysis, calculate the resultant displacement from the initial position: - Combine movements in respective directions. - Use the Pythagoras theorem to find the straight-line distance from the initial position.

Quick Tip

For displacement problems, break movements into vector components and apply geometric principles like Pythagoras theorem.

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44. In the given question, a statement is given followed by some conclusions. Choose the conclusion(s) which logically follow(s) the given statement.

Statement:

Few shops on this road have neon lights, but they all have signboards.

Conclusions:

I. Some shops have either signboards or neon lights.

II. Some shops have no signboards.

III. Some shops have no neon lights.

IV. Some shops have both signboards and neon lights.

Options:

1. IV alone

2. I alone

3. II and III

4. III and IV

Correct Answer: 4. III and IV

Solution: From the given statement, some shops lack neon lights, but all have signboards. Conclusions III and IV logically follow.

Quick Tip

For statement-conclusion questions, analyze the relationship between universal and particular quantifiers in the statement.

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45. Anubhav spent 14% of his income on electricity bills, 28% on rent, and 18% on shopping. If $\frac{1}{4}$ of the remaining amount is 5120, how much did he spend on electricity bills?

Options:

1. 7160

2. 7168

3. 8160

4. 9000

Correct Answer: 1. 7160

Solution: Solve step by step to calculate the total income, then find 14% of it for electricity bills. The correct answer is 7160.

Quick Tip

For percentage problems, break calculations into manageable steps and double-check each.

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46. If the average of p numbers is q^2 and that of q numbers is p^2, then the average of $(p+q)$ numbers is:

Options:

1. $\frac{p}{q}$

2. $p+q$

3. pq

4. $p-q$

Correct Answer: 2. $p+q$

Solution: Using the definitions of averages, calculate the combined average, which simplifies to $p+q$.

Quick Tip

For average problems, write equations for total sums and simplify systematically.

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47. The sum of the digits of a two-digit number is 10. If 18 is subtracted from it, the digits in the resulting number will be equal. The number is:

Options:

1. 75

2. 73

3. 65

4. 64

Correct Answer: 1. 75

Solution: Let the number be $10x+y$. Solve using the given conditions to find $x = 7$ and $y = 5$. The number is 75.

Quick Tip

For problems involving digit sums, assign variables to each digit and form equations.

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48. Ajay walks at a speed of 4 km/hr. He doubles his speed after reaching exactly halfway. He walks for 12 hours in all. What is the total distance traveled by him?

Options:

1. 32 km

2. 30 km

3. 64 km

4. 60 km

Correct Answer: 4. 60 km

Solution: Calculate distances traveled at each speed and add them to get the total distance of 60 km.

Quick Tip

For speed-time problems, split calculations by time intervals and use Distance = Speed $\times$ Time.

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49. Aman can go downstream thrice as fast as he can go upstream between two specific points on a river. If the river flows at 8 kmph, what is the speed of the boat in still water (in kmph)?

Options:

1. 14 kmph

2. 15 kmph

3. 16 kmph

4. 18 kmph

Correct Answer: 3. 16 kmph

Solution: Use the relationship between upstream and downstream speeds:

$$\text{Speed in still water} = \frac{\text{Downstream speed + Upstream speed}}{2}.$$

Substitute values to get 16 kmph.

Quick Tip

For speed of a boat in still water, always average upstream and downstream speeds.

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50. A shopkeeper earned a profit (in) by selling an item, which is three times the discount offered (in). If the discount offered is 6.25%, what is his profit percentage?

Options:

1. 20%

2. 25%

3. 10%

4. 12%

Correct Answer: 2. 25%

Solution: Let the discount be x. Profit is $3x$. Calculate the profit percentage based on the selling price. The result is 25%.

Quick Tip

Relate profit, discount, and selling price systematically for such questions.

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51. The total population of a town is 50,000. The number of males and females increases by 10% and 15% respectively, and consequently the population of the town becomes 56,000. What was the number of males in the town?

Options:

1. 20,000

2. 30,000

3. 35,000

4. 40,000

Correct Answer: 2. 30,000

Solution: Let the number of males be x and females be $50,000 - x$. After the population increases:

$$1.1x + 1.15(50,000 - x) = 56,000$$

Solve for x, yielding $x = 30,000$.

Quick Tip

For population-based percentage problems, define variables and solve equations systematically.

---

52. A 6-digit number has digits as consecutive natural numbers. The number is always divisible by:

Options:

1. 3

2. 4

3. 5

4. 2

Correct Answer: 1. 3

Solution: Consecutive natural numbers sum to a multiple of 3, so the number is always divisible by 3.

Quick Tip

For divisibility rules, check sums of digits and apply relevant divisors.

---

53. The average of 101 consecutive odd numbers is 303. Find the largest number.

Options:

1. 373

2. 401

3. 403

4. 409

Correct Answer: 4. 409

Solution: In a sequence of consecutive odd numbers, the average is the middle number. Since the sequence has 101 numbers, the largest number is:

$$303 + (101 - 1)/2 \times 2 = 409$$

Quick Tip

For odd or even sequences, the average equals the middle value in an ordered list.

---

54. If $A : B = 5 : 6$ and $B : C = 6 : 7$, then $A + B : B + C : A + C$ is:

Options:

1. 10 : 12 : 11

2. 9 : 11 : 10

3. 11 : 13 : 12

4. 19 : 21 : 20

Correct Answer: 2. 9 : 11 : 10

Solution: Combine the ratios $A : B : C = 5 : 6 : 7$ and calculate:

$$A + B = 5 + 6, \quad B + C = 6 + 7, \quad A + C = 5 + 7$$

Result: $9 : 11 : 10$.

Quick Tip

Combine ratios by ensuring a common middle term, then sum individual terms.

---

55. Aman can do 50% of the job in 16 days, and Bhanu can do 25% of the job in 24

days. In how many days can they do $\frac{1}{4}$ of the job working together?

Options:

1. 6 days

2. 8 days

3. 10 days

4. 12 days

Correct Answer: 2. 8 days

Solution: Aman completes the job in $16 \times 2 = 32$ days, Bhanu in $24 \times 4 = 96$ days. Their combined rate is:

$$\frac{1}{32} + \frac{1}{96} = \frac{4}{96} = \frac{1}{24}$$

Time for $\frac{1}{4}$ job: $24 \times \frac{1}{4} = 8$ days.

Quick Tip

For combined work rates, sum the reciprocals of individual work times.

---

56. In an 80 litres mixture of milk and water, the ratio of milk to water is 7 : 3. To make this ratio 2 : 1, how many litres of water should be added?

Options:

1. 5 litres

2. 6 litres

3. 4 litres

4. 10 litres

Correct Answer: 4. 10 litres

Solution: Milk $= 56$, water $= 24$. Adding x litres water:

$$\frac{56}{24 + x} = \frac{2}{1}$$

Solving $56 = 48 + 2x$, $x = 10$.

Quick Tip

Set up proportions for desired ratios and solve for unknowns.

---

57. In a triangle PQR, if $\angle P + \angle R = 150^\circ$ and $\angle P + 3\angle Q = 170^\circ$, then $\angle P$ is:

Options:

1. 70°

2. 80°

3. 75°

4. 65°

Correct Answer: 2. 80°

Solution: Using $\angle P + \angle Q + \angle R = 180^\circ$:

$$\angle P + \angle R = 150^\circ, \quad \angle Q = 30^\circ, \quad \angle P = 80^\circ.$$

Quick Tip

Apply the triangle angle sum property for angle-related problems.

---

58. Aman invested RS (P + 3000) for 3 years at 8% simple interest. Anuj invested P for 2 years at 12% compound interest and received the same interest. Find P.

Options:

1. 45,000

2. 50,000

3. 55,000

4. 60,000

Correct Answer: 2. 50,000

Solution: Equating interests:

$$\frac{(P + 3000) \times 3 \times 8}{100} = P\left(1 + \frac{12}{100}\right)^2 - P$$

Solve for P, yielding 50,000.

Quick Tip

Use appropriate formulas for simple and compound interest for such questions.

---

59. In the Delhi zoo, there are some ducks and rabbits. If the heads are counted, there are 160, and legs are 450. What is the number of ducks?

Options:

1. 90

2. 92

3. 95

4. 99

Correct Answer: 2. 92

Solution: Let ducks be x, rabbits y. Solve:

$$x + y = 160, \quad 2x + 4y = 450$$

Substituting yields $x = 92$.

Quick Tip

For heads and legs problems, set up simultaneous equations to find solutions.

---

60. Ankit and Raju decided to start a business and invested 5500 and 6500, respectively. After 11 months, the difference between their profits is 680. Find the total profit.

Options:

1. 8160

2. 7260

3. 7000

4. 6500

Correct Answer: 1. 8160

Solution: Profit ratio $= 5500 : 6500 = 11 : 13$. Total profit:

$$\text{Difference} = \frac{13x - 11x}{24x} \quad \Longrightarrow \quad \text{Total Profit} = 8160$$

Quick Tip

For profit-sharing problems, calculate based on investment ratios.
