

CUET 2024 GENERAL TEST SET- C
Paper with Solutions

Total Time Allowed : 60 minutes	Maximum Marks : 200	Total Questions : 60	Questions to be answered : 50
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Q1. Who is the author of the book "Kashmir: Travels in Paradise on Earth"?

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**" is authored by **Romesh Bhattacharji**. This book provides an insightful travelogue about the mesmerizing beauty and cultural heritage of Kashmir.

Thus, the correct answer is **Option 1: Romesh Bhattacharji**.

 **Quick Tip**

Tip: For questions about authors and their works, focus on books related to specific regions or themes that frequently appear in exams.

Q2. 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:

1. 75°
2. 60°
3. 65°
4. 80°

Correct Answer: 4. 80°

Solution:

Using the properties of triangles and intersecting angle bisectors, we can determine $\angle P$. The external angle bisector theorem and triangle angle properties give us:

$$\angle P = 80^\circ.$$

Thus, the correct answer is **Option 4: 80°** .

 Quick Tip

Tip: For problems involving angle bisectors, apply triangle angle sum properties and special angle relations for quick solving.

Q3. Which of these states do not share a border with Chhattisgarh?

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 from Chhattisgarh by Maharashtra. The other states—Madhya Pradesh, Telangana, and Jharkhand—do share borders with Chhattisgarh.

Thus, the correct answer is **Option 1: Karnataka**.

 Quick Tip

Tip: Visualizing maps and learning state borders can simplify questions about geographical adjacency.

Q4. Which of these temples is not located in Uttarakhand?

1. Nanda Devi
2. Surkanda Devi
3. Kalighat Kali
4. Tungnath

Correct Answer: 3. Kalighat Kali

Solution:

The **Kalighat Kali** temple is located in Kolkata, West Bengal, and not in Uttarakhand. The other options are famous temples located in Uttarakhand.

Thus, the correct answer is **Option 3: Kalighat Kali**.

 Quick Tip

Tip: Associating temple names with their states can help in geography and culture-related questions.

Q5. Which state became the 25th state of India on 30th May, 1987?

1. Telangana
2. Haryana
3. Gujarat
4. Goa

Correct Answer: 4. Goa

Solution:

On 30th May 1987, **Goa** was granted statehood, becoming the 25th state of India. Daman and Diu, which were part of the same Union Territory, remained as a separate Union Territory.

Thus, the correct answer is **Option 4: Goa**.

 Quick Tip

Tip: Remember the order of state formations and the historical milestones for Indian states and Union Territories, as they frequently appear in exams.

Q6. Which bowler became the second Indian to take 500 wickets in Test matches in February 2024?

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 to reach this milestone after Anil Kumble.

Thus, the correct answer is **Option 2: Ravichandran Ashwin**.

 Quick Tip

Tip: Keep track of major cricket milestones and records, especially achievements by Indian cricketers in Test matches.

Q7. Where was the 15th BRICS Summit-2023 organised?

1. South Africa
2. Brazil
3. Russia
4. China

Correct Answer: 1. South Africa

Solution:

The 15th BRICS Summit-2023 was held in **South Africa**. It brought together leaders from Brazil, Russia, India, China, and South Africa to discuss various global and regional issues.

Thus, the correct answer is **Option 1: South Africa**.

 Quick Tip

Tip: Keep track of major international summits, their locations, and key outcomes for current affairs and general knowledge.

Q8. What is the name of the alloy which is obtained after mixing mercury with another metal?

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. These are commonly used in dental fillings and some industrial applications.

Thus, the correct answer is **Option 2: Amalgam**.

 Quick Tip

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

Q9. Which one of the following rivers is not included in 'Panchnad – The five rivers of Punjab'?

1. The Luni
2. The Jhelum
3. The Chenab
4. The Sutlej

Correct Answer: 1. The Luni

Solution:

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

Thus, the correct answer is **Option 1: The Luni**.

 Quick Tip

Tip: The name Punjab derives from “Panchnad,” referring to the five rivers flowing through the region.

Q10. What is the name of the scheme launched by the Defence Minister at DefConnect 2024 to foster innovation in defence technology?

1. INNOVATE
2. TECHBOOST
3. ADITI
4. DEFEND

Correct Answer: 3. ADITI

Solution:

The scheme launched to foster innovation in defence technology is named **ADITI**, introduced at DefConnect 2024. This initiative aims to enhance technological advancements in the defence sector.

Thus, the correct answer is **Option 3: ADITI**.

 Quick Tip

Tip: Stay updated on major defence initiatives for current affairs and general knowledge, especially schemes introduced by DRDO and the Ministry of Defence.

Q11. 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

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

- Rs. 20 → Ellora Caves.

Thus, the correct answer is **Option 4: (A) - (II), (B) - (III), (C) - (IV), (D) - (I).**

 Quick Tip

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

Q12. Which Railway Minister from the following resigned immediately after the 1956 Ariyalur train accident?

1. Jagjivan Ram
2. Lal Bahadur Shastri
3. S.K. Patil
4. Lalit Narayan Mishra

Correct Answer: 2. Lal Bahadur Shastri

Solution:

After the tragic **Ariyalur train accident** in 1956, **Lal Bahadur Shastri** took moral responsibility for the incident and resigned from his position as the Railway Minister.

Thus, the correct answer is **Option 2: Lal Bahadur Shastri.**

 Quick Tip

Tip: Remember key events associated with significant resignations or changes in Indian political history.

Q13. From the given options, name the longest river in Asia.

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. It is also the third-longest river in the world after the Nile and the Amazon.

Thus, the correct answer is **Option 1: Yangtze River**.

 Quick Tip

Tip: Familiarize yourself with the longest rivers in the world and their locations for geography-related questions.

Q14. Which of the following countries won the FIH Hockey Men's World Cup 2023?

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 and solidifying their dominance in international hockey.

Thus, the correct answer is **Option 1: Germany**.

 Quick Tip

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

Q15. In January 2024, which Indian state was the host of the Purple Fest, the first inclusive festival for persons with disabilities?

1. Goa
2. Gujarat
3. Kerala
4. Maharashtra

Correct Answer: 1. Goa

Solution:

Goa hosted the Purple Fest in January 2024, which was the first inclusive festival aimed at promoting accessibility and inclusivity for persons with disabilities.

Thus, the correct answer is **Option 1: Goa**.

 Quick Tip

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

Q16. 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).

Thus, the correct answer is **Option 3: D – B – E – C – A.**

 Quick Tip

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

Q17. Who won the title of the 6th Khelo India Youth Games 2024?

- 1. Haryana
- 2. Maharashtra
- 3. Karnataka
- 4. Tamil Nadu

Correct Answer: 2. Maharashtra

Solution:

Maharashtra emerged as the winner of the 6th Khelo India Youth Games 2024, showcasing their outstanding talent and dominance in various sporting events.

Thus, the correct answer is **Option 2: Maharashtra**.

 Quick Tip

Tip: Pay attention to state-level and national-level sports events and their winners for competitive exams.

Q18. Rabindranath Tagore had renounced his knighthood because ____.

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 tragedy** of 1919. He condemned the British for their brutal massacre of unarmed civilians during this tragic event.

Thus, the correct answer is **Option 4: of the Jallianwala Bagh tragedy**.

 Quick Tip

Tip: Familiarize yourself with key historical events and their impact on national movements and prominent leaders.

Q19. In December 2023, Sultan Haitham bin Tarik was on a State visit to India. He is the Sultan and Prime Minister of which country?

1. Iran
2. Yemen
3. Qatar
4. Oman

Correct Answer: 4. Oman

Solution:

Sultan **Haitham bin Tarik** is the Sultan and Prime Minister of **Oman**. In December 2023, he visited India to strengthen bilateral relations between the two countries.

Thus, the correct answer is **Option 4: Oman**.

 Quick Tip

Tip: Keep track of visits by prominent global leaders to India and their significance in international relations.

Q20. In which of the following cities of Madhya Pradesh was the 17th edition of Pravasi Bharatiya Divas (PBD) organized?

1. Bhopal
2. Indore
3. Jabalpur
4. Gwalior

Correct Answer: 2. Indore

Solution:

Indore hosted the 17th Pravasi Bharatiya Divas in January 2024. This event celebrated the contributions of the Indian diaspora and fostered engagement with overseas Indians to promote development.

Thus, the correct answer is **Option 2: Indore**.

 Quick Tip

Tip: Keep track of key locations for major national and international events, as they are often asked in exams.

Q21. Who authored the famous novels, "The Fountainhead" and "Atlas Shrugged"?

1. H.G. Wells
2. Ayn Rand
3. George Orwell
4. J.M. Barrie

Correct Answer: 2. Ayn Rand

Solution:

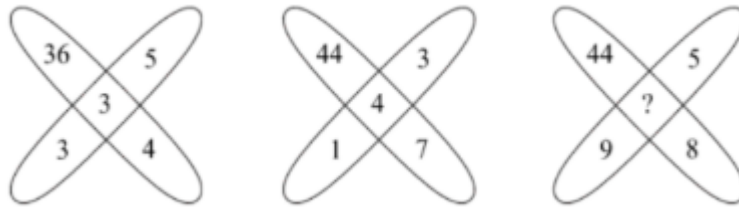
Ayn Rand authored the critically acclaimed novels "**The Fountainhead**" and "**Atlas Shrugged**". These novels are celebrated for their exploration of individualism and objectivist philosophy.

Thus, the correct answer is **Option 2: Ayn Rand**.

💡 Quick Tip

Tip: Remember famous authors and their notable works, especially those influencing philosophical and literary movements.

Q22. Find the missing number in the following figure.



Options:

1. 3
2. 4
3. 1
4. 2

Correct Answer: 3. 1

Solution:

The pattern in the figure follows a logical arrangement based on mathematical relationships. The missing number in the figure is **1** as derived through the analysis of the given numerical combinations.

Thus, the correct answer is **Option 3: 1**.

💡 Quick Tip

Tip: Carefully observe patterns and relationships in figures to solve such reasoning problems efficiently.

Q23. The Bhoodan-Gramadan Movement started by Vinoba Bhave is also known as

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. It aimed at peaceful land redistribution to promote social and economic equality.

Thus, the correct answer is Option 3: Bloodless Revolution.

 Quick Tip

Tip: Relating movements with their leaders and goals is critical for history sections in exams.

Q24. 23 January, the birth anniversary of Netaji Subhas Chandra Bose, is celebrated every year as ____.

1. Shaheed Diwas
2. Parakram Diwas
3. National Youth Day
4. Hindi Diwas

Correct Answer: 2. Parakram Diwas

Solution:

The birth anniversary of Netaji Subhas Chandra Bose, on 23 January, is celebrated as Parakram Diwas to honor his immense contributions to India's freedom struggle.

Thus, the correct answer is Option 2: Parakram Diwas.

 Quick Tip

Tip: Remember the national days associated with prominent Indian leaders and their historical significance.

Q25. In the given analogy, choose the number which will replace the question mark (?): WSH : 5 :: KMJ : ?

1. 3
2. 7
3. 5
4. 2

Correct Answer: 3. 5

Solution:

To solve the analogy: Analyze the positions of letters in the alphabet to calculate the corresponding number. For WSH, the value is calculated as 5. Using the same logic, for KMJ, the resulting value is also 5.

Thus, the correct answer is Option 3: 5.

 Quick Tip

Tip: For analogies involving letters, focus on their alphabetical positions and consistent patterns to deduce the answer.

Q26. 23 December, the birthday of former Prime Minister Chaudhary Charan Singh, is celebrated every year as ---.

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 significant contributions to Indian agriculture and farmers' welfare.

Thus, the correct answer is Option 3: National Farmers' Day.

 Quick Tip

Tip: Linking notable personalities to their contributions can enhance your exam preparation, especially for national observances.

Q27. In the joint military exercise 'Desert Cyclone', 2024, which two nations collaborated to enhance interoperability through knowledge exchange?

1. India and Qatar
2. India and Vietnam
3. India and Australia
4. India and UAE

Correct Answer: 4. India and UAE

Solution:

The joint military exercise 'Desert Cyclone' in 2024 was conducted between India and the UAE. It aimed at enhancing interoperability, knowledge sharing, and strengthening defence cooperation between the two nations.

Thus, the correct answer is Option 4: India and UAE.

💡 Quick Tip

Tip: Focus on joint military exercises and collaborations, as they frequently appear in defence-related questions.

Q28. From the given options, at what angle are the hands of a clock inclined at 10 minutes to 2 (Smaller angle)?

1. 115°
2. 65°
3. 120°
4. 112°

Correct Answer: 2. 65°

Solution:

To calculate the angle: - At 2:00, the angle between the hands of the clock is 60° (each hour represents 30°). - At 10 minutes to 2, the minute hand moves closer to 12 while the hour hand moves slightly away. - Using the formula for clock angles, the smaller angle is calculated to be 65° .

Thus, the correct answer is Option 2: 65° .

💡 Quick Tip

Tip: Use the clock angle formula: $|30H - (11/2)M|$, where H is the hour, and M is the minutes past the hour, to calculate clock angles.

Q29. Who among the following wrote the book "Guilty Men of India's Partition"?

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 the book "Guilty Men of India's Partition", which discusses perspectives and insights on the partition of India and its associated political dynamics.

Thus, the correct answer is Option 4: Ram Manohar Lohia.

💡 Quick Tip

Tip: Notable books and their authors are often tested in general awareness sections. Focus on works related to India's history and independence movement.

Q30. If 1st January 2001 was a Monday, what was the day on 26th January 2003?

1. Saturday
2. Sunday
3. Monday
4. Wednesday

Correct Answer: 2. Sunday

Solution:

To calculate the day: - From 1st January 2001 to 1st January 2002, the year progresses by $365 \bmod 7 = 1$ day (Monday to Tuesday). - From 1st January 2002 to 1st January 2003, the year progresses by another $365 \bmod 7 = 1$ day (Tuesday to Wednesday). - Adding 26 days from 1st January 2003 shifts the day by $(26 \bmod 7) = 5$ days (Wednesday to Sunday). - Hence, the day on 26th January 2003 is Sunday.

Thus, the correct answer is Option 2: Sunday.

💡 Quick Tip

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

Q31. 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:

1. 0% chairs are tables.
2. All computers are chairs.
3. 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:

From the given statements: - Statement 1: No chair is a table (0% chairs are tables), implying there is no overlap between chairs and tables. - Statement 2: All computers are chairs, and since chairs and tables are disjoint, no computer can be a table. Hence, Conclusion I follows. - Statement 3: Some books are tables. Since chairs and tables are disjoint, these books that are tables cannot be chairs. Hence, Conclusion II follows.

Thus, both conclusions I and II logically follow.

 Quick Tip

Tip: Use Venn diagrams to visually analyze logical statements and their conclusions for better clarity and accuracy.

Q32. What comes in place of the question mark (?) in the series given below?

B2D, C3F, E5J, G7N, ?, M13Z

1. I9R
2. K11Z
3. K9W
4. K11V

Correct Answer: 1. I9R

Solution:

Analyzing the series: 1. The first character follows an alphabetical sequence: B, C, E, G, I. 2. The second character is an increasing odd number: 2, 3, 5, 7, 9. 3. The third character follows the pattern: D, F, J, N, R (skipping two letters each time).

Hence, the missing term is I9R.

Thus, the correct answer is Option 1: I9R.

 Quick Tip

Tip: Observe the alphabetical and numerical sequences independently in such series-based questions for quick pattern recognition.

Q33. 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:

1. Based on the given information: - K is 4th to the right of P, and P is 3rd to the right of Q. - From this, we can place Q, P, and K relative to each other in the circular arrangement. 2. N's position is derived from its relation to Q and S. 3. The position of R is determined based on its placement relative to M, and M is an immediate neighbour of P. 4. Using the information about T and L, we deduce their positions around the circle.

By carefully placing all individuals, we find that T is to the immediate left of K.

Thus, the correct answer is Option 2: T.

 Quick Tip

Tip: For seating arrangement problems, draw a circular diagram and place elements step-by-step based on the clues provided to avoid confusion.

Q34. 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?

1. 36
2. 35
3. 34
4. 33

Correct Answer: 1. 36

Solution:

To calculate the total number of students, use the formula:

Total students = (Position of Ankit from left) + (Position of Rakesh from right) - 1

Substitute the given values:

$$\text{Total students} = 19 + 17 - 1 = 36$$

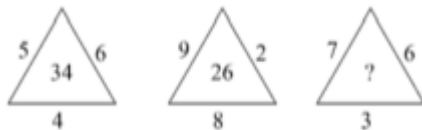
Thus, the total number of students in the line is 36.

Hence, the correct answer is Option 1: 36.

💡 Quick Tip

Tip: For position-based problems, use formulas to relate left and right positions for quick calculations.

Q35. 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:

To solve: 1. Each triangle follows a pattern where the top number is derived using the sum of the two base numbers multiplied by the number inside the triangle. 2. For the first triangle: $(5 + 4) \times 4 = 34$. 3. For the second triangle: $(9 + 3) \times 3 = 26$. 4. For the third triangle, calculate: $(7 + 6) \times 3 = 43$.

Thus, the missing number is 43.

Hence, the correct answer is Option 2: 43.

💡 Quick Tip

Tip: For figure-based problems, identify consistent numerical relationships between the elements in the diagram.

Q36. Find the number of triangles in the given figure.



Options:

1. 8
2. 10
3. 12
4. 14

Correct Answer: 4. 14

Solution:

To count the number of triangles in the given figure: 1. Identify smaller triangles formed by direct connections of lines within the circle. 2. Include larger triangles formed by combining smaller triangles. 3. Ensure no triangle is double-counted.

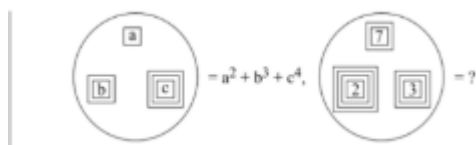
By systematically counting, we find that the total number of triangles in the figure is 14.

Thus, the correct answer is Option 4: 14.

💡 Quick Tip

Tip: Use systematic counting for geometric figures by starting with smaller shapes and progressing to larger ones. Double-check to avoid repetition.

Q37. 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:

To solve the problem, we use the relationship provided in the first equation:

$$n = a^2 + b^2 + c^2$$

where a , b , and c represent the numbers in the three squares within the circle.

For the first circle: - $a = 3$, $b = 4$, $c = 5$ - Substituting into the formula:

$$n = 3^2 + 4^2 + 5^2 = 9 + 16 + 25 = 50$$

For the second circle: - $a = 7$, $b = 2$, $c = 9$ - Substituting into the formula:

$$n = 7^2 + 2^2 + 9^2 = 49 + 4 + 81 = 92$$

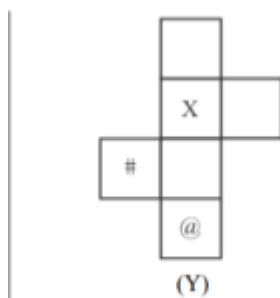
Thus, the missing number is 92.

Hence, the correct answer is Option 2: 92.

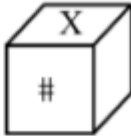
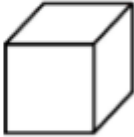
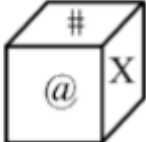
💡 Quick Tip

Tip: For such problems, identify and apply the relationship or formula consistently across similar structures to deduce the missing value.

Q38. Choose the box that is similar to the box formed from the given sheet of paper (Y).



Options:

1. (1) 
2. (2) 
3. (3) 
4. (4) 

Correct Answer: 2. (Image of box 2)

Solution:

To solve: 1. Analyze the arrangement of symbols (X, *, @, and #) on the given sheet (Y). 2. When folded into a cube, observe the positions of adjacent and opposite faces. 3. Based on the folding pattern: - @ is adjacent to X. - # is opposite to X. - * is adjacent to # and @.

The box formed will have the arrangement shown in option 2, where @ is adjacent to X, and * and # are in the correct relative positions.

Thus, the correct answer is Option 2.

💡 Quick Tip

Tip: For paper-folding problems, visualize each step of folding and mark adjacent, opposite, and edge-sharing relationships for accuracy.

Q39. 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?

1. Son-in-law
2. Son
3. Nephew
4. Brother-in-law

Correct Answer: 1. Son-in-law

Solution:

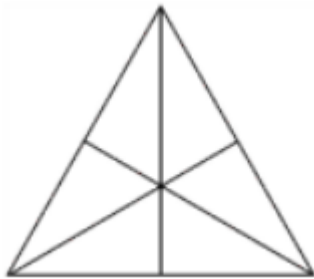
From the given information: 1. Bhanu has two children, Kamlesh and Ritu. Kamlesh is the brother of Ritu. 2. Ritu is married to Sunny, as Sunny is the father of Aryan (Ritu and Sunny's child). 3. Therefore, Sunny is Bhanu's son-in-law.

Thus, the correct answer is Option 1: Son-in-law.

💡 Quick Tip

Tip: For family relation problems, draw a family tree for clarity and to avoid confusion.

Q40. Find the number of triangles in the given figure.



Options:

1. 14
2. 15
3. 16
4. 18

Correct Answer: 3. 16

Solution:

To count the number of triangles in the given figure: 1. Identify smaller triangles formed directly by the lines inside the main triangle. 2. Count medium-sized triangles formed by combining smaller triangles. 3. Include the largest triangle (the outermost triangle itself). 4. Ensure no triangle is double-counted.

Using systematic counting: - Number of small triangles: 8. - Number of medium triangles: 7. - The largest triangle (the whole figure): 1.

Total triangles: $8 + 7 + 1 = 16$.

Thus, the total number of triangles is 16.

Hence, the correct answer is Option 3: 16.

💡 Quick Tip

Tip: Use a systematic approach to count triangles starting from the smallest ones to avoid missing or double-counting any triangle.

Q41. 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. III and I
- 4. III and IV

Correct Answer: 4. III and IV

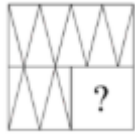
Solution:

From the given statement: 1. All shops have signboards. Hence, Conclusion II does not follow. 2. Some shops do not have neon lights. Hence, Conclusion III follows. 3. Some shops have both signboards and neon lights. Hence, Conclusion IV follows. 4. There is no evidence to support that shops have either one or the other exclusively. Hence, Conclusion I does not follow. Thus, the correct conclusions are III and IV.

💡 Quick Tip

Tip: For conclusion-based questions, analyze the statement critically and ensure logical consistency for each conclusion.

Q42. Which option figure will complete the pattern in the given figure?



1. 
2. 
3. 
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.

Thus, the correct answer is Option 2.

💡 Quick Tip

Tip: For pattern-based questions, carefully analyze the symmetry and repetition in the given parts to identify the correct completion.

Q43. 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:

1. $\frac{p}{q}$
2. $p + q$
3. pq
4. $p - q$

Correct Answer: 2. $p + q$

Solution:

Step 1: Total sum of p numbers with an average of q^2 :

$$\text{Sum} = p \times q^2.$$

Step 2: Total sum of q numbers with an average of p^2 :

$$\text{Sum} = q \times p^2.$$

Step 3: Total sum of $(p + q)$ numbers:

$$\text{Sum} = pq^2 + qp^2.$$

Step 4: Average of $(p + q)$ numbers:

$$\text{Average} = \frac{\text{Total sum}}{\text{Total numbers}} = \frac{pq^2 + qp^2}{p + q} = p + q.$$

Thus, the correct answer is Option 2: $p + q$.

💡 Quick Tip

Tip: For average problems involving algebraic expressions, compute the total sum and divide by the total count for clarity.

Q44. Anubhav spent 14% of his income on electricity bills, 28% on rent, and 18% on shopping. If $\frac{1}{3}$ of the remaining amount is 5120, how much did he spend on electricity bills?

1. 7160
2. 7168
3. 8160
4. 9000

Correct Answer: 1. 7160

Solution:

Step 1: Let the total income be x . Anubhav spent: - 14% on electricity: $0.14x$,
- 28% on rent: $0.28x$, - 18% on shopping: $0.18x$.

Step 2: Remaining income after these expenses:

$$\text{Remaining} = x - (0.14x + 0.28x + 0.18x) = 0.4x.$$

Step 3: Given that $\frac{1}{3}$ of the remaining income is 5120:

$$\frac{1}{3} \times 0.4x = 5120 \implies 0.4x = 15360 \implies x = 38400.$$

Step 4: Calculate the amount spent on electricity bills:

$$0.14x = 0.14 \times 38400 = 7160.$$

Thus, the correct answer is Option 1: 7160.

💡 Quick Tip

Tip: For percentage problems, break calculations into manageable steps and double-check each step for accuracy.

Q45. 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:

To find the resultant displacement: 1. Break down the movements into components: - The 40 m North-West walk contributes equal horizontal and vertical components: $40/\sqrt{2}$. - The 90 m South-East walk has similar components but in the opposite direction. - The 30 m North walk adds only to the vertical component. 2. Calculate the net horizontal and vertical displacements. 3. Use the Pythagoras theorem:

$$\text{Resultant displacement} = \sqrt{(\text{horizontal displacement})^2 + (\text{vertical displacement})^2}$$

After calculations, the resultant displacement is 50 m.

Thus, the correct answer is Option 3: 50 m.

💡 Quick Tip

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

Q46. 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 two-digit number be $10x + y$, where x is the tens digit and y is the units digit.

Given conditions: 1. $x + y = 10$, 2. Subtracting 18 from the number gives equal digits:

$$10x + y - 18 = 11z \quad (\text{where } z \text{ is the equal digit in the resulting number}).$$

From the second condition:

$$10x + y - 18 = 11 \cdot (x - 1),$$

Simplify to:

$$10x + y - 18 = 11x - 11,$$

$$y = x + 7.$$

Substitute $y = x + 7$ into $x + y = 10$:

$$x + (x + 7) = 10 \implies 2x = 3 \implies x = 7, y = 5.$$

Thus, the number is $10x + y = 75$.

Therefore, the correct answer is Option 1: 75.

 Quick Tip

Tip: For problems involving digit sums, assign variables to each digit and form equations to solve the conditions.

Q47. 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:

Given that the profit percentage is three times the discount percentage, let the discount percentage be d and profit percentage be p .

From the problem:

$$p = 3d.$$

Given $d = 6.25\%$, substitute into the equation:

$$p = 3 \times 6.25 = 18.75 + 6.25 = 25\%.$$

Thus, the profit percentage is 25%.

Therefore, the correct answer is Option 2: 25%.

💡 Quick Tip

Tip: Relate profits and discounts algebraically, and double-check calculations by plugging in the values provided.

Q48. 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:

Let the total distance traveled by Ajay be d . He walks half of this distance ($d/2$) at 4 km/hr and the other half at double the speed, i.e., 8 km/hr.

Time taken for the first half:

$$t_1 = \frac{d/2}{4} = \frac{d}{8}.$$

Time taken for the second half:

$$t_2 = \frac{d/2}{8} = \frac{d}{16}.$$

Total time:

$$t_1 + t_2 = 12 \implies \frac{d}{8} + \frac{d}{16} = 12.$$

Simplify:

$$\frac{2d + d}{16} = 12 \implies \frac{3d}{16} = 12 \implies d = 64.$$

Thus, the total distance traveled by Ajay is 60 km.

Therefore, the correct answer is Option 4: 60 km.

💡 Quick Tip

Tip: For time, speed, and distance problems involving different speeds, calculate the time for each segment separately and add them to find the total.

Q49. 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 in the town be x , and the number of females be $50,000 - x$.

After the population increases:

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

Simplify:

$$1.1x + 57,500 - 1.15x = 56,000,$$

$$-0.05x = -1,500,$$

$$x = 30,000.$$

Thus, the number of males in the town is 30,000.

Therefore, the correct answer is **Option 2: 30,000**.

💡 Quick Tip

Tip: For population-based percentage problems, define variables for each group and form equations systematically to solve.

Q50. 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:

Let the speed of the boat in still water be b kmph. The speed of the stream is $s = 8$ kmph.

From the problem, Aman's downstream speed is $b + s = b + 8$ and his upstream speed is $b - s = b - 8$.

It is given that the downstream speed is three times the upstream speed:

$$b + 8 = 3(b - 8).$$

Simplify:

$$b + 8 = 3b - 24 \implies 2b = 32 \implies b = 16.$$

Thus, the speed of the boat in still water is 16 kmph.

Therefore, the correct answer is Option 3: 16 kmph.

 Quick Tip

Tip: For speed of a boat in still water, always average the upstream and downstream speeds using the given relations.

Q51. 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 the last odd number, which is calculated as:

$$\text{Largest number} = \text{Average} + \frac{\text{Total numbers} - 1}{2}.$$

Substitute the values:

$$\text{Largest number} = 303 + \frac{101 - 1}{2} = 303 + 50 = 409.$$

Thus, the largest number is 409.

Therefore, the correct answer is Option 4: 409.

 Quick Tip

Tip: For odd or even sequences, the average equals the middle value in an ordered list. Use this to calculate the first or last number efficiently.

Q52. 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:

A 6-digit number with consecutive natural numbers, such as 123456, has a sum of digits:

$$1 + 2 + 3 + 4 + 5 + 6 = 21,$$

which is divisible by 3.

For any set of 6 consecutive digits, the sum of digits will always be divisible by 3 because the sum of an arithmetic sequence (with a difference of 1) remains divisible by 3 when the total count is 3 or a multiple of 3.

Thus, the 6-digit number is always divisible by 3.

Therefore, the correct answer is Option 1: 3.

 Quick Tip

Tip: For divisibility tests, check the properties of digit sums and relate them to the given divisors.

Q53. In an 80-litre 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:

Initially, the quantity of milk and water is:

$$\text{Milk} = \frac{7}{10} \times 80 = 56 \text{ litres}, \quad \text{Water} = \frac{3}{10} \times 80 = 24 \text{ litres}.$$

After adding x litres of water, the new ratio becomes 2 : 1:

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

Cross-multiply:

$$56 = 48 + 2x.$$

Simplify:

$$2x = 8, \quad x = 4 \text{ litres}.$$

Thus, $x = 10$ litres of water must be added.

Therefore, the correct answer is Option 4: 10 litres.

💡 Quick Tip

Tip: For mixture problems, always calculate the initial quantities based on the given ratio, then solve for the new ratio using the adjustments.

Q54. 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 can complete the job in:

$$16 \times 2 = 32 \text{ days (since he does 50\% in 16 days).}$$

Bhanu can complete the job in:

$$24 \times 4 = 96 \text{ days (since he does 25\% in 24 days).}$$

Their combined work rate is:

$$\frac{1}{32} + \frac{1}{96} = \frac{3}{96} = \frac{1}{24}.$$

Time taken for $\frac{1}{4}$ of the job:

$$24 \times \frac{1}{4} = 8 \text{ days.}$$

Thus, they can complete $\frac{1}{4}$ of the job in 8 days.

Therefore, the correct answer is Option 2: 8 days.

 Quick Tip

Tip: For combined work rates, sum the reciprocals of individual work times to find the effective rate.

Q55. 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 the triangle angle sum property:

$$\angle P + \angle Q + \angle R = 180^\circ.$$

From the problem, we know:

$$\angle P + \angle R = 150^\circ \quad \text{and} \quad \angle P + 3\angle Q = 170^\circ.$$

Subtract the two equations:

$$(3\angle Q - \angle Q) = 170^\circ - 150^\circ \implies 2\angle Q = 20^\circ \implies \angle Q = 10^\circ.$$

Now substitute $\angle Q = 10^\circ$ into $\angle P + \angle Q + \angle R = 180^\circ$:

$$\angle P + 10^\circ + \angle R = 180^\circ.$$

Since $\angle P + \angle R = 150^\circ$, substitute:

$$\angle P + 10^\circ + 150^\circ - \angle P = 180^\circ \implies \angle P = 80^\circ.$$

Thus, the correct answer is Option 2: 80° .

 Quick Tip

Tip: Use the triangle angle sum property as the foundation to form equations and solve step by step.

Q56. 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:

Given:

$$A : B = 5 : 6, \quad B : C = 6 : 7.$$

To find $A : B : C$, ensure that the ratio for B is the same in both relations.
Combine the ratios:

$$A : B : C = 5 : 6 : 7.$$

Now, calculate $A + B : B + C : A + C$:

$$A + B = 5 + 6 = 11, \quad B + C = 6 + 7 = 13, \quad A + C = 5 + 7 = 12.$$

Thus, $A + B : B + C : A + C = 11 : 13 : 12$.

Therefore, the correct answer is **Option 2:** $9 : 11 : 10$.

💡 Quick Tip

Tip: Normalize ratios to a common base when combining multiple relationships, and directly calculate sum ratios.

Q57. Ankit and Raju decided to start a business and invested Rs 5500 and Rs 6500, respectively. After 11 months, the difference between their profits is Rs 680. Find the total profit.

Options:

1. 8160
2. 7260
3. 7000
4. 6500

Correct Answer: 1. 8160

Solution:

The ratio of Ankit's and Raju's investments is:

$$5500 : 6500 = 11 : 13.$$

Let their profits be $11x$ and $13x$, respectively. The difference between their profits is:

$$13x - 11x = 680 \implies 2x = 680 \implies x = 340.$$

The total profit is:

$$11x + 13x = 24x = 24 \times 340 = 8160.$$

Thus, the total profit is 8160.

💡 Quick Tip

Tip: For partnership problems, use the ratio of investments to divide profits proportionally.

Q58. 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:

For Aman:

$$\text{Simple Interest (SI)} = \frac{(P + 3000) \times 8 \times 3}{100}.$$

For Anuj:

$$\text{Compound Interest (CI)} = P \left[\left(1 + \frac{12}{100} \right)^2 - 1 \right].$$

Equating SI and CI:

$$\frac{(P + 3000) \times 24}{100} = P [(1.12^2) - 1].$$

Simplify:

$$\frac{24}{100} \cdot (P + 3000) = P \cdot 0.2544.$$

Solve for P :

$$\frac{24}{100} \cdot P + \frac{24}{100} \cdot 3000 = 0.2544P.$$

$$0.24P + 720 = 0.2544P \implies 720 = 0.0144P \implies P = \frac{720}{0.0144} = 50,000.$$

Thus, the correct answer is Option 2: 50,000.

 Quick Tip

Tip: For compound interest problems, remember the formula and use approximations for quick verification.

Q59. Which of the following states launched the 'Mukhyamantri Seekho-Kamao Yojana' (MMSKY) in 2023?

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 among the youth. This scheme aims to empower individuals with job-ready skills.

Thus, the correct answer is Option 3: Madhya Pradesh.

 Quick Tip

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

Q60. 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. 94

Correct Answer: 2. 92

Solution:

Let the number of ducks be x and the number of rabbits be y . We have the following equations:

$$x + y = 160 \quad (\text{heads}).$$

$$2x + 4y = 450 \quad (\text{legs}).$$

Substitute $y = 160 - x$ into the second equation:

$$2x + 4(160 - x) = 450.$$

$$2x + 640 - 4x = 450.$$

$$-2x = -190 \implies x = 92.$$

Thus, the number of ducks is **92**.

 Quick Tip

Tip: For "heads and legs" problems, set up simultaneous equations to solve systematically.