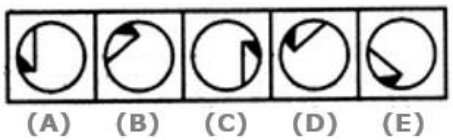
Week4_OLT2(LR)_CSE_Immersion_2025

Directions (Q1 to Q2):
In each of the following questions there are five figures (A), (B), (C), (D) and (E). Out of these five figures four are similar in a certain way, However, one figure is not like the other four. Choose the figure which is different from the rest.

Q1.

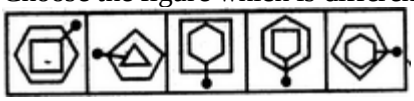


1. A 2. B 3. C 4. D 5. E

[Level-2; Accenture, Capgemini, Wipro]

Answer: B

Q2. In each problem, out of the five figures marked (1), (2), (3), (4) and (5), four are similar in a certain manner. However, one figure is not like the other four. Choose the figure which is different from the rest.
Choose the figure which is different from the rest.



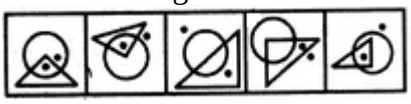
1 2 3 4 5

A. 1 B. 2 C. 3 D. 4 E. 5

[Level-2; Accenture, Capgemini, Wipro]

Answer: D
Solution:
Only in fig. (4), the pin passes through a vertex of each one of the two elements.

Q3. In each problem, out of the five figures marked (1), (2), (3), (4) and (5), four are similar in a certain manner. However, one figure is not like the other four. Choose the figure which is different from the rest.
Choose the figure which is different from the rest.



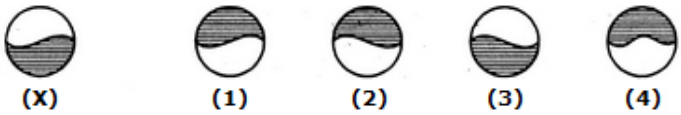
1 2 3 4 5

A. 1 B. 2 C. 3 D. 4 E. 5

[Level-2; Accenture, Capgemini, Wipro]

Answer: A
Solution:
In all other figures, one of the dots lies outside the triangle as well as the circle.

Q4. In each of the following questions, choose the correct WATER IMAGE of the Fig.(X) from amongst the four alternatives.

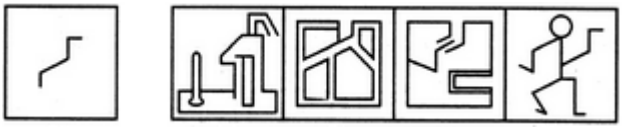


A. 1 B. 2 C. 3 D. 4 E. 5

[Level-2; Accenture, Capgemini, Wipro]

Answer: B

Q5. Find out the alternative figure which contains figure (X) as its part.



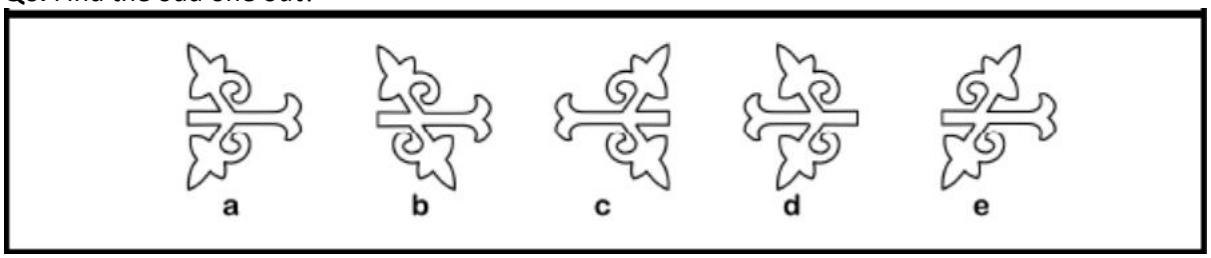
A. 1 B. 2 C. 3 D. 4

[Level-2; Accenture, Capgemini, Wipro]

Answer: D

Solution:

Q6. Find the odd one out?



[Level-3; Topic-Visual Classification; Accenture, Capgemini, Wipro]

Answer: A

Direction (Q7 to Q10)

In each question below, two statements are given followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Options for each question:

(A) Only conclusion I follows.
(B) Only conclusion II follows.
(C) Either I or II follows.
(D) Neither I nor II follows.
(E) Both I and II follow.

Q7.

Statements:

No dog is a cat.
No cat is a mouse.

Conclusions:

I. No dog is a mouse.
II. Some dogs are mice.
[Level-3;Topic-Syllogism; Accenture, Wipro, Infosys]

Answer: (D)
Solution:
Venn Diagram Approach:
Draw three separate circles for "Dogs", "Cats", and "Mice", with "Dogs" not overlapping "Cats" and "Cats" not overlapping "Mice". There is no information about "Dogs" and "Mice".
Analysis:
Conclusion I: Just because dogs aren't cats and cats aren't mice, doesn't mean dogs aren't mice. There could be overlap or no overlap between dogs and mice. (False)
Conclusion II: Similarly, we cannot conclude some dogs are mice. (False)
Answer: (D) Neither I nor II follows.

Q8.
Statements:
All plants are leaves.
No leaf is green.
Conclusions:
I. No plant is green.
II. Some leaves are plants.
[Level-3;Topic-Syllogism; Accenture, Wipro, Infosys]

Answer: (E)
Solution:
Venn Diagram Approach:
Draw "Plants" inside "Leaves".
Draw a separate circle for "Green" that does not overlap with "Leaves".
Analysis:
Conclusion I: If all plants are leaves, and no leaf is green, then it logically follows that no plant can be green. (True)
Conclusion II: If all plants are leaves, then it means some leaves are definitely plants (the leaves that are plants). (True)
Answer: (E) Both I and II follow.

Q9.
Statements:
Some shirts are pants.
Some pants are shorts.
Conclusions:
I. Some shirts are shorts.
II. No shirt is a short.
[Level-3;Topic-Syllogism; Accenture, Wipro, Infosys]

Answer: (C)
Solution:
Venn Diagram Approach:

Draw overlapping circles for "Shirts" and "Pants".
Draw overlapping circles for "Pants" and "Shorts". There is no direct information to link "Shirts" and "Shorts".
Analysis:
Conclusion I: There's no direct connection between shirts and shorts. The pants that are shirts might not be the same pants that are shorts. (Cannot be concluded)
Conclusion II: Similarly, we cannot definitively say no shirt is a short. (Cannot be concluded)
Complementary Pair (Either/Or Case): "Some shirts are shorts" and "No shirt is a short" form a complementary pair.
Answer: (C) Either I or II follows.

Q10.
Statements:
Some cups are plates.
All plates are dishes.
Conclusions:
I. Some cups are dishes.
II. All dishes are cups.
[Level-3;Topic-Syllogism; Accenture, Wipro, Infosys]

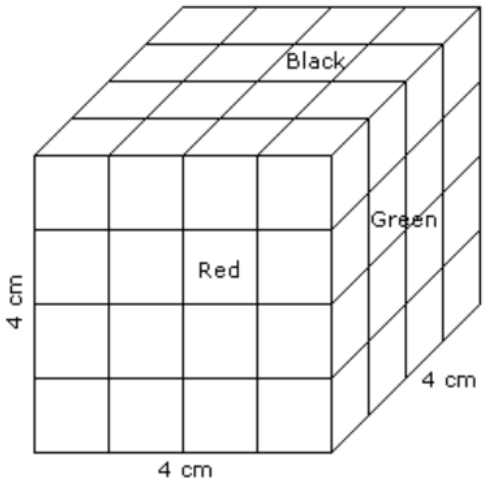
Answer: (A)
Solution:
Venn Diagram Approach:
Draw overlapping circles for "Cups" and "Plates".
Draw a larger circle for "Dishes" that completely encloses "Plates".
Analysis:
Conclusion I: Since some cups are plates, and all plates are dishes, the part of cups that are plates must also be dishes. Therefore, some cups are dishes. (True)
Conclusion II: While some cups are dishes, we cannot generalize that all dishes are cups. There could be dishes that are not cups. (False)
Answer: (A) Only conclusion I follows.

Directions (Q11 to Q15)
The following questions are based on the information given below:
All the opposite faces of a big cube are coloured with red, black and green colours. After that is cut into 64 small equal cubes.

Q11. How many small cubes are there where one face is green and other one is either black or red?
A. 28 B. 8 C. 16 D. 24

Answer: C
Solution:

One side of the big cube $= \sqrt[3]{64} = 4$ cm.

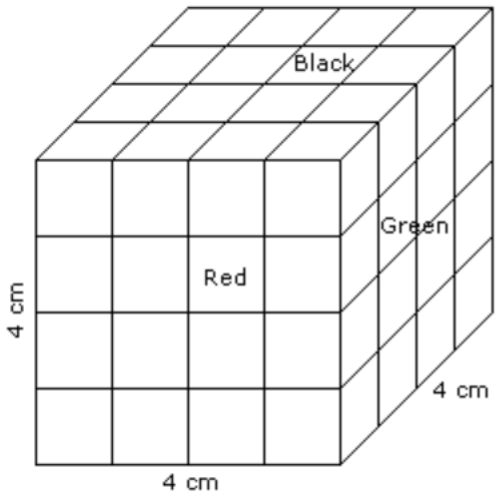


Number of small cubes having one face green and the other one is either red or black
$= 8 \times 2 = 16$

Q12. How many small cubes are there whose no faces are coloured?
A. 0 B. 4 C. 8 D. 16

Answer: C
Solution:

One side of the big cube $= \sqrt[3]{64} = 4$ cm.



Number of small cubes having no face coloured $= (x - 2)^3$

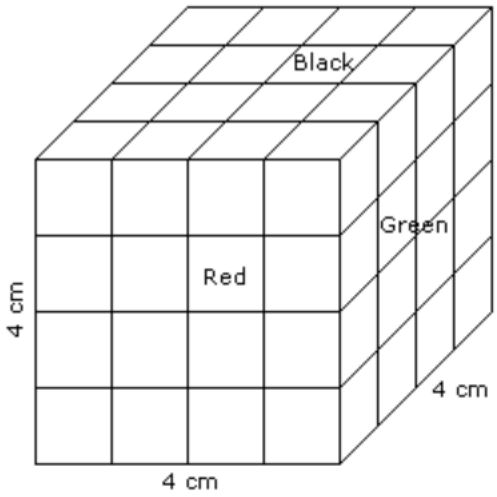
$= (4 - 2)^3$

$= 8$

Q13. How many small cubes are there whose 3 faces are coloured?
A. 4 B. 8 C. 16 D. 24

Answer: B
Solution:

One side of the big cube = $\sqrt[3]{64}$ = 4 cm.



Number of small cubes having three faces coloured = 1 at each corner

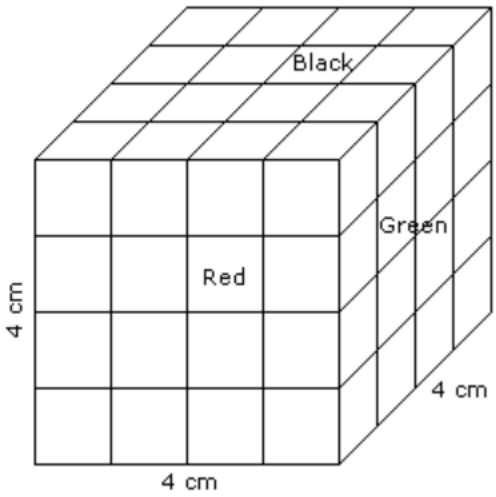
= 1 × 8

= 8

Q14. How many small cubes are there whose only one face is coloured?
A. 32 B. 8 C. 16 D. 24

Answer: D
Solution:

One side of the big cube $= \sqrt[3]{64} = 4$ cm.



Number of small cubes having only one face coloured = 4 from each face

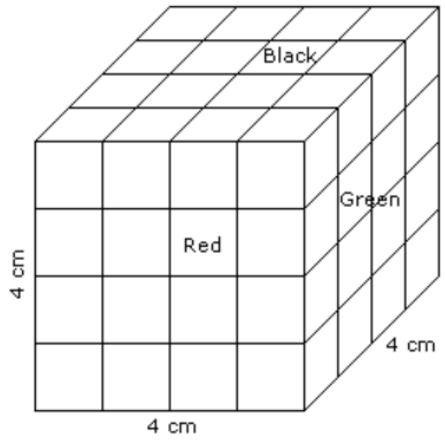
$= 4 \times 6$

$= 24$

Q15. How many small cubes are there whose at the most two faces are coloured?
A. 48 B. 56 C. 28 D. 24

Answer: B
Solution:

One side of the big cube = $\sqrt[3]{64}$ = 4 cm.



Number of small cubes having two faces coloured = 8 + 8 + 4 + 4 = 24

and Number of small cubes having only one face coloured = 4 × 6 = 24

and Number of small cubes having no face coloured = 4 + 4 = 8

Therefore, total number of small cubes whose at the most two faces are coloured = 24 + 24 + 8 = 56.