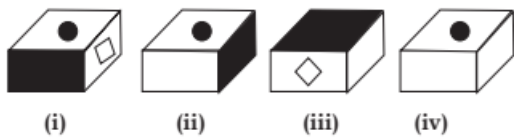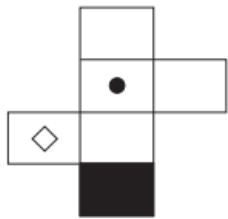# CUBE & DICE
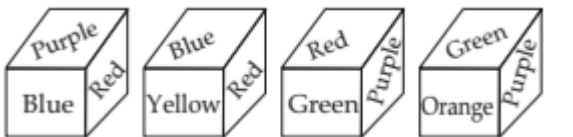
Reasoning Cube & Dice Worksheet for MAH MCA CET 2025

For students preparing for MCA Entrance Exam

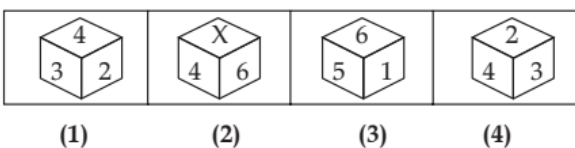1. Choose one of the four alternatives that can be the same boxes as the question figure.

(i) (ii) (iii) (iv)

A. Only (i)
B. Only (ii)
C. Both (i) and (ii)
D. Both (iii) and (iv)

2. In the given cubes, which colour is opposite to purple?
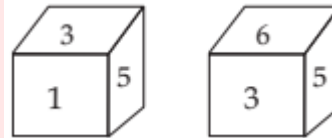

A. Violet
B. Red
C. Yellow
D. Blue

3. Given below are the different positions of a dice.

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

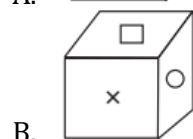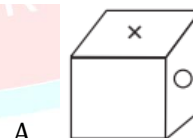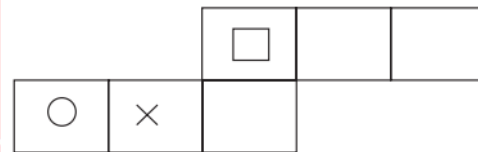What shall come in the place of "X"?

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

4. Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 6.
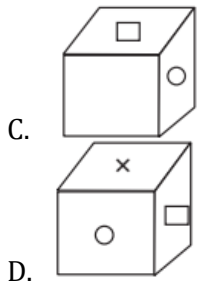

A. 1
B. 4
C. 3
D. 5

Direction (Qs. 5 – 9): Select a figure from the options that is similar to the box formed from the given figure.
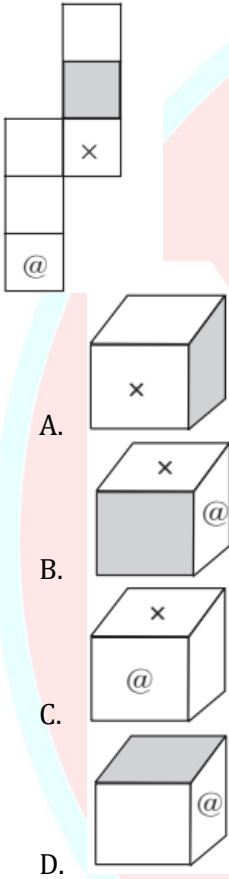
5.
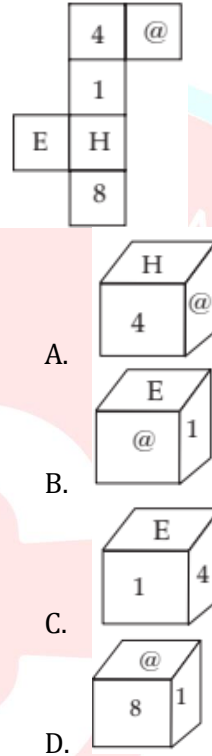

A.

B.

C.

D.

A. (2) and (3) only
B. (1), (3) and (4) only
C. (2) and (4) only
D. (1) and (4) only

6.

A.

B.

C.

D.

7.

(1)   (2)   (3)   (4)
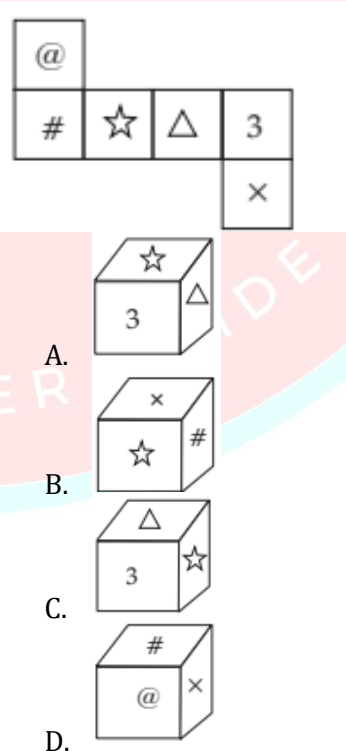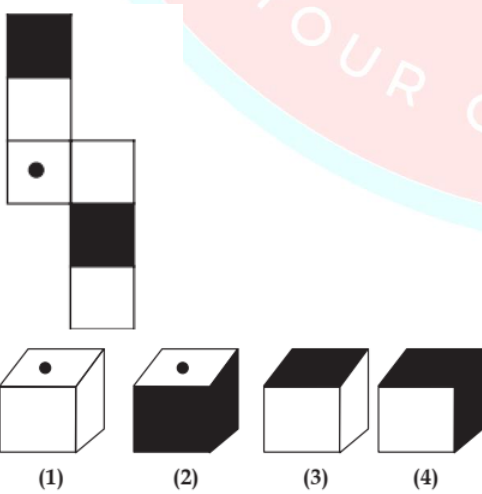
8.

A.

B.

C.

D.

9.

A.

B.

C.
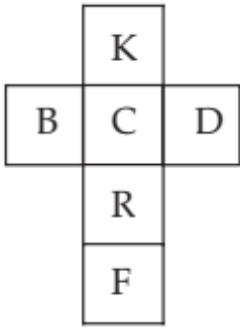

D.

10. This box will be formed like:

A.

B.

C.

D.

11. The box will be formed like:

A.

B.

C.

D.

12. 19. Which number is at the opposite of number 5?
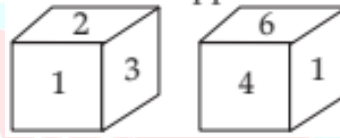
A. 4
B. 6
C. 1
D. 3

13. Observe the dots on a dice in the following figure, how many dots are contained on the face opposite to that containing four dot?
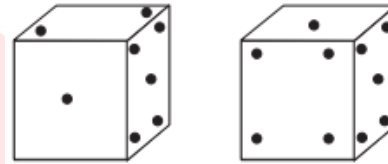
A. 2
B. 3
C. 6
D. Cannot be determined

Directions (Qs. 14 – 18): A cube of side 10 cm is coloured red with a 2 cm wide green strip along all the faces. The cube is cut into 125 smaller cubes of equal size. Answer the following questions based on this statement.

14. How many cubes have three green faces each?
A. 0
B. 4
C. 8
D. 16

15. How many cubes have one face red and an adjacent face green?
A. 0
B. 6
C. 8
D. 16

16. How many cubes have at least one face coloured?

A. 76
B. 89
C. 98
D. 102

17. How many cubes have at least two green faces each?
    A. 8
    B. 27
    C. 44
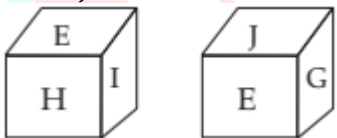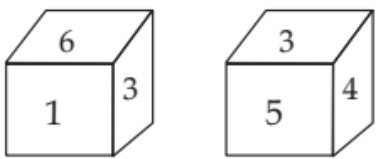   D. 63

18. How many cubes are without any colour?
    A. 64
    B. 27
    C. 12
    D. 0

19. Two different positions of the same dice are shown, the faces of which are marked with the letters E, F, G, H, I and J. Select the letter that will be on the face opposite to the face having the letter 'J'.

    A. G
    B. F
    C. E
    D. I

20. Two positions of the same dice are given. Which number will be at the bottom if '4' is at the top?

    A. 1
    B. 3
    C. 6
    D. 2

21. A cube painted yellow on all faces is cut into 27 small cubes of equal size. How many small cubes are painted on one face only?
    A. 1
    B. 6
    C. 8
    D. 12

22. All surfaces of a cube are coloured. If a number of smaller cube are taken out from it, each side ¼ the size of original cube's side, and then indicate the number of cubes with only one side painted.
    A. 60
    B. 32
    C. 24
    D. 16

23. A cube is painted blue on all faces and is cut into 125 cubes of equal size. How many cubes are not painted on any face?
    A. 8
    B. 16
    C. 27
    D. 36
    E. 54

24. A cube of white material is painted black on all its surface. If it is cut into 125 smaller cubes of the same size, then how many cubes will have two sides painted black?
    A. 8
   B. 16
    C. 22
    D. None of these

25. The 6 faces of a cube are coloured black, brown, green, red, white and blue. Such that
(A) Red is opposite to black.
(B) Green is between red and black.
(C) Blue is adjacent to white.
(D) Brown is adjacent to blue.
(E) Red is at the bottom.
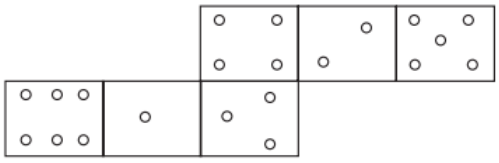Then answer the following:
Which colour is opposite to brown?
    A. white
    B. red
    C. green
    D. blue

26. How many dots are there on the dice face opposite the one with three dots?
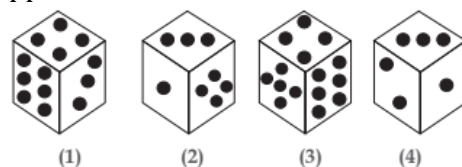
A. 2
B. 4
C. 5
D. 6

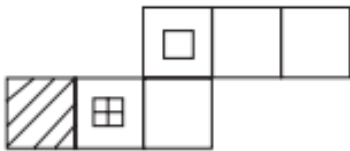27. How many dots lie opposite to the face having three dots. When the given figure is folded to form a cube?
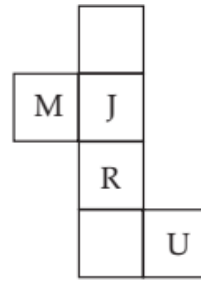

A. 2
B. 4
C. 5
D. 6

Directions (Qs. 28–30): Select a figure from the options that is similar to the box formed the given options.
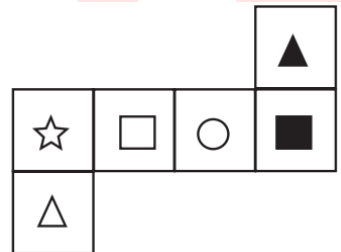
28.

A.

B.

C.

D.

29.

A.

B.

C.

D.

30.

A.

B.

C.

D.

Answer Key

1. D	2. C	3. A	4. A	5. C	6. A	7. B	8. C	9. B	10. B
11. A	12. C	13. A	14. C	15. A	16. C	17. C	18. B	19. D	20. A
21. B	22. C	23. C	24. D	25. A	26. C	27. D	28. A	29. A	30. A