

IMO CLASS 6 (MATHS)

Total Questions: 50

Time: 1hr.

Section – 1 : Verbal and Non-Verbal Reasoning.

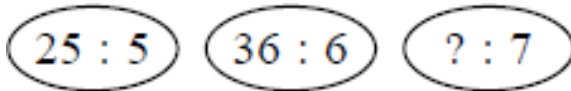
Section – 2 : Knowing our Numbers, Whole Numbers, Playing with Numbers, Basic Geometrical Ideas, Understanding Elementary Shapes, Integers, Fractions, Decimals, Data Handling, Mensuration, Algebra, Ratio and Proportion, Symmetry, Practical Geometry.

Section – 3 : Syllabus as per Section – 2.

Section – 4 : Higher Order Thinking Questions - Syllabus as per Section – 2.

SECTION 01 LOGICAL REASONING

1. Find the missing number, if same rule is followed in all the three figures.

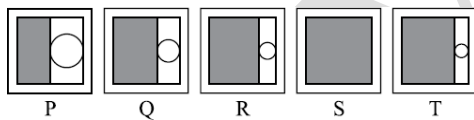


- (A) 49 (B) 37 (C) 50 (D) 94

2. If FORGE is written as FPTJI, how will CULPRIT be written?

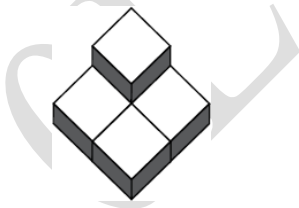
- (A) CSJNPGR (B) CVMQSTU (C) CVNSVNZ (D) CXOSULW

3. Identify the two figures which are out of position/place and requires interchanging of position to put the entire series in order.



- (A) Q and R (B) S and T (C) R and P (D) P and S

4. Count the number of cubes in the given figure.

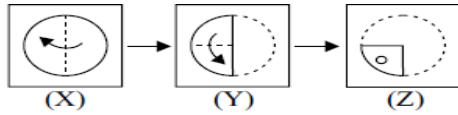


- (A) 3 (B) 4 (C) 5 (D) None of these

5. Select odd one out.

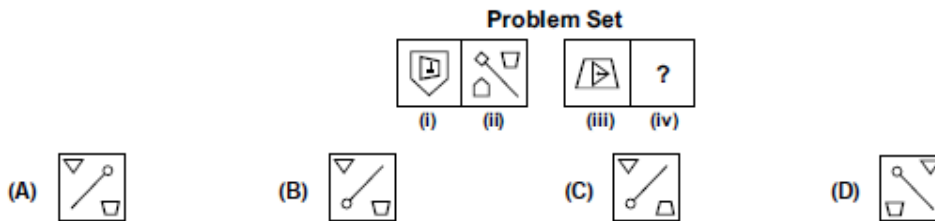
- (A) Lion (B) Cat (C) Rabbit (D) Fox

6. A set of three figures X, Y and Z showing a sequence of folding of a piece of paper is given. Fig (Z) shows the manner in which the folded paper has been cut. Select the option which shows the unfolded form of Fig (Z).



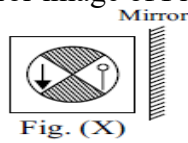
- (A)
- (B)
- (C)
- (D)

7. The given question consists of two sets of figures, Figures (i), (ii), (iii) and (iv) constitute the Problem set. There is a definite relationship between figure (i) and (ii). Establish a similar relationship between figures (iii) and (iv) by selecting a suitable figure from the options that would replace (?) in figure (iv).



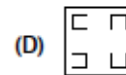
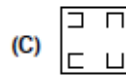
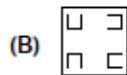
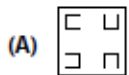
8. If the first three letters of the word 'ANTHROPOLOGISTS' are written in reverse order, followed by the next four letters written in reverse order, followed by next eight letters written in reverse order, which letter will come exactly in the middle?
- (A) T (B) H (C) S (D) O
9. Arrange the following words in the sequence in which they occur in the dictionary.
1. Select 2. Seldom 3. Send 4. Selfish 5. Seller
- (A) 1, 2, 4, 5, 3 (B) 2, 1, 5,
4, 3 (C) 2, 1, 4, 5, 3 (D) 2,
5, 4, 1, 3
10. If in the word VITREOUS first all the consonants are arranged alphabetically, and then all the vowels are arranged alphabetically, and then all the vowels are arranged alphabetically, then which letter will be the third to the right of fourth letter from the left?
- (A) R (B) O (C) I (D) U

11. Select the correct mirror image of Fig. (X).



- (A)
- (B)
- (C)
- (D)

12. In the given question there are four figures (A), (B), (C) and (D). Out of these four figures, three are similar in certain way. However, one figure is not like the other three. Choose the figure which is different from the rest.



13. If $687 + 509 = 560897$, then $619 + 703 = ?$

(A) 760931

(B) 760891

(C) 760139

(D) 760193

14. Using the below table, identify the correct expression.

P	Q	R	S
+	-	÷	×

(A) $17Q - 8S + 9P + 18R = 2 = 46$

(B) $18S + 30R + 6Q + 5P = 0 = 85$

(C) $27Q + 10R + 5S + 4P = 3 = -32$

(D) All of these

15. Mohit left for his office in his car. He drove 12 km towards North and then 10 km towards West. He then turned to the South and covered 4 km. Further, he turned to the East and moved 8 km. Finally, he turned right and drove 8 km. How far and in which direction is he from his starting point?

(A) 2 km, West

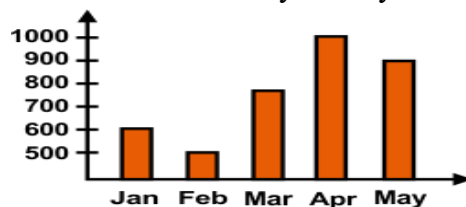
(B) 2 km, East

(C) 4 km, West

(D) 2 km, North

SECTION 02 MATHEMATICAL REASONING

16. The bar graph shows the sale of chocolates in 5 months from January to May: What is the total sale of chocolates from January to May?



a. 3000

b. 3800

c. 4000

d. 4500

17. Fill in the blank:

A quadrilateral with only one pair of opposite side parallel is called a _____

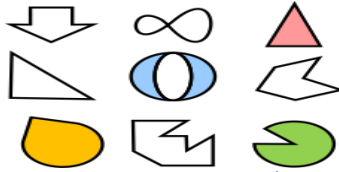
a. Parallelogram

b. Trapezium

c. Rhombus

d. Kite

18. How many of the following figures have exactly one line of symmetry?



- a. 5
b. 6
c. 7
d. 8

19. What will come in place of "?"

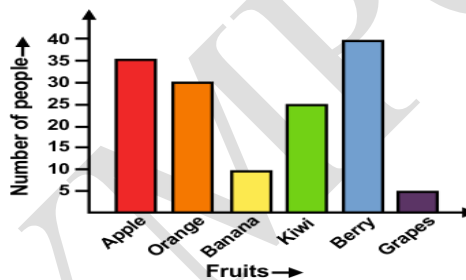
15	17	13	16	11	14
102	19	94	18	?	17

- a. 72
b. 84
c. 96
d. 112

20. The portion of a circle bounded by a chord and the arc subtended by the chord is called _____ of a circle.

- a. Sector
b. Segment
c. Radius
d. Diameter

21. The given graph shows the fruit preferences of people.



How many more people prefer oranges over bananas?

- a. 5
b. 10
c. 15
d. 20

22. Two regular pentagons of side 5 cm are joined together as shown in the figure. Find the perimeter of the new figure:



- a. 35 cm
b. 40 cm
c. 45 cm
d. 50 cm

23. The ratio of two numbers is 3:7. If the sum of the numbers is 700, find the two numbers.

- a. 210, 490
b. 270, 490
c. 110, 490
d. 110, 650

24. Find the value of x:

$$11 : 13 :: x : 26$$

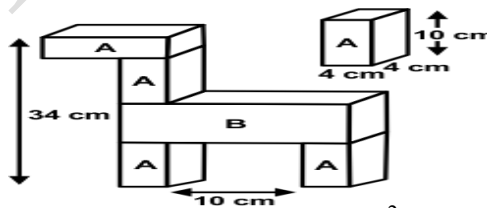
- a. 20
b. 21
c. 22
d. 24

43. The present age of a father is 3 years more than 3 times the age of his son. Three years hence, the father's age will be 10 years more than twice than age of the son. The father's present age is:
 a. 33 years b. 39 years c. 45 years d. 40 years
44. Two numbers are such that the ratio between them is 3:4. If each is increased by 9, the ratio between the new numbers formed is 6:7. Find the original numbers.
 a. 12, 14 b. 18, 21 c. 24, 28 d. 9, 12
45. Annual incomes of 'A' and 'B' are in the ratio 4:5, respectively. If the income of 'A' increases by 25% and that of 'B' increases by 20%, then what is the new ratio of their incomes respectively?
 a. 5:8 b. 4:7 c. 5:6 d. 6:5

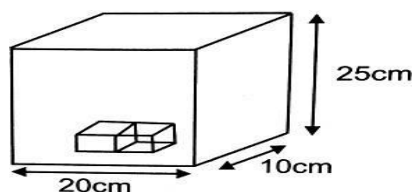
SECTION04 ACHIEVER SECTION

46. If $63.3605 = 6A + 3/B + 3C + 6/D + 5E$, then what is the value of $4A + 7B + 6C + D + 3E$.
 a. 47.603 b. 4.7603
 c. 147.6003 d. 47.6003
47. Consider the following quotients:
 I. 368.39 divided by 17 II. 170.50 divided by 62 III. 875.65 divided by 83
 Their correct sequence in decreasing order is:
 a. I, III, II b. II, I, III c. II, III, I d. III, I, II
48. Simplify: $(87.4 \times 6.5 - 0.1) / (28.4 \times 9.8 + 5.68)$
 a. 1/2 b. 3 c. 2 d. 4

49. A few blocks of wood are used to make the shape of a giraffe as shown below. What is the volume of wood used to make the giraffe?



- a. 640 cm^2 b. 1260 cm^2
 c. 1360 cm^2 d. 1400 cm^2
50. A tank with two identical metal cubes in it was filled with water to the brim. When the cubes are removed the water level dropped to 80% of its height. The edge of one cube is:



- a. 15 cm b. 25 cm
 c. 10 cm d. 8 cm