Atomic Energy Central School, Indore

Model Paper 2020-21

Class: VI **Time: 2.15 Hrs**

Subject: Mathematics **Marks: 70**

VERY SHORT ANSWER QUESTIONS

(EACH QUESTION CARRIES 1 MARK)

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1. 0.023 lies between

(A) 0.2 and 0.3 (B) 0.02 and 0.03 (C) 0.03 and 0.029 (D) 0.026 and 0.024

2. The length and breadth of a steel tape are 10m and 2.4cm, respectively. The ratio of the length to the breadth is

(A) 5:1.2 (B) 25:6 (C) 625:6 (D) 1250:3

3. Which of the following represents 6 × x

(A) 6x (B) $\frac{x}{6}$ (C) 6 + x (D) 6 – x

4. Which of the following letters has only one line of symmetry?

(A) H (B) X (C) Z (D) T

5. Choose the correct answer from the given four options: In Fig. 6.1, a square of side 1 cm is joined to a square of side 3 cm. The perimeter of the new figure is

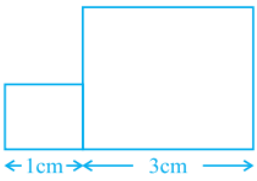


Fig. 6.1

(A) 13cm (B) 14cm (C) 15cm (D) 16cm

6. The ratio of 8 books to 20 books is

(A) 2:5 (B) 5:2 (C) 4:5 (D) 5:4

7. 15.8 – 6.73 is equal to

(A) 8.07 (B) 9.07 (C) 9.13 (D) 9.25

8. The ratio of the number of sides of a square to the number of edges of a cube is

(A) 1:2 (B) 3:2 (C) 4:1 (D) 1:3

9. Which of the following letters have both horizontal and vertical lines of symmetry?

(A) X (B) E (C) M (D) K

10. A picture is 60cm wide and 1.8m long. The ratio of its width to its perimeter in lowest form is

(A) 1:2 (B) 1:3 (C) 1:4 (D) 1:8

11. 4a equals

(A) 4 + a (B) 4 × a (C) a × a × a × a (D) 4 ÷ a

12. If each match box contains 50 matchsticks, the number of matchsticks required to fill n such boxes is

(A) 50 + n (B) 50n (C) 50÷ n (D) 50 – n

13. 15. 0.07 + 0.008 is equal to

(A) 0.15 (B) 0.015 (C) 0.078 (D) 0.78

14. Which of the following letters does not have any line of symmetry?

(A) E (B) T (C) N (D) X

15. 8 more than three times the number x can be represented as

(A) 8 + x + 3 (B) 3 x – 8 (C) 3 x + 8 (D) 8 x + 3

16. Following figures are formed by joining six unit squares. Which figure has the smallest perimeter in Fig. 6.4?

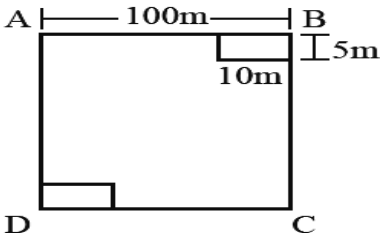
Fig. 6.4

17. The side of a square is 10cm. How many times will the new perimeter become if the side of the square is doubled?

(A) 2 times (B) 4 times (C) 6 times (D) 8 times

18. A square shaped park ABCD of side 100m has two equal rectangular flower beds each of size 10m × 5m. Length of the boundary of the remaining park is

(A) 360m (B) 400m (C) 340m (D) 460m



19. Which of the following decimals is the greatest?

(A) 0.182 (B) 0.0925 (C) 0.29 (D) 0.038

20. Alisha is x years of age now. 5 years ago her age was

(A) (5 – x) years (B) (5 + x) years (C) (x – 5) years (D) (5 ÷ x) years

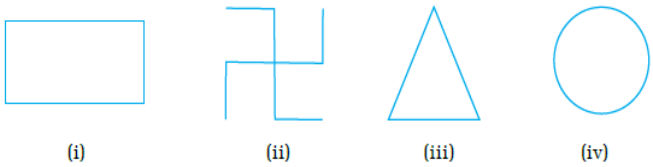
21. Which of the following decimals is the smallest?

(A) 0.27 (B) 1.5 (C) 0.082 (D) 0.103

22. Which of the following angles cannot be constructed using ruler and compasses?

(A) 75° (B) 15° (C) 135° (D) 85°

23. In the following figures, the figure that is not symmetric with respect to any line is



(A) (i) (B) (ii) (C) (iii) (D) (iv)

24. Which of the following is an equation?

(A) x + 7 (B) 2y +3 = 7 (C) 2p < 10 (D) 12x

25. Which of the following letters does not have the vertical line of symmetry?

(A) M (B) H (C) E (D) V

SHORT ANSWER QUESTIONS I
(EACH QUESTION CARRIES 2 MARKS)

26. If there are 50 mangoes in a box, how will you write the total number of mangoes in terms of the number of boxes? (Use b for the number of boxes.)

27. A floor is 5 m long and 4 m wide. A square carpet of sides 3 m is laid on the floor. Find the area of the floor that is not carpeted.

28. Find the missing number in the box in the following proportion: : 8 :: 12 : 32

29. Solve $\frac{2}{19} + \frac{4}{19}$

SHORT ANSWER QUESTIONS II
(EACH QUESTION CARRIES 3 MARKS)

30. Nisha travels 20 km 50 m every day. Out of this she travels 10 km 200 m by bus and the rest by auto. How much distance does she travel by auto?

31.Name a triangle which has

(a) No lines of symmetry?

(b) Exactly two lines of symmetry?

(c) Exactly three lines of symmetry?

32. Draw a circle of radius 3.5 cm.

LONG ANSWER TYPE QUESTIONS
(EACH QUESTION CARRIES 4 MARKS)

33. State whether the given statements are true (T) or false (F).

(i) 3 : 33 = 33 : 333

(ii) 4 : 7 = 20 : 35

(iii) The ratio of 1 hour to one day is 1:1.

(iv) Square has 4 lines of symmetry.

34. Bob wants to cover the floor of a room 3 m wide and 4 m long by squared tiles. If each square tile is of side 0.5 m, then find the number of tiles required to cover the floor of the room.

OR

The area of a rectangular piece of cardboard is 36 cm^2 and its length is 9 cm. What is the width of the cardboard?

35. Give expressions for the following cases.

(a) 7 subtracted from – m
(b) 7 subtracted from p
(c) p multiplied by 7
(d) p divided by 7

36. 7. Fill in the blanks

(i) If two ratios are _____, then they are in proportion.

(ii) The number of scales in a protractor for measuring the angles is _____.

(iii) Area of a rectangle with length 5cm and breadth 3cm is _____.

(iv) 1m = _____ cm.