DAV PUBLIC SCHOOLS, ODISHA ZONE
PERIODIC TEST– II (2023 – 24)

- Please check that this question paper contains 2 printed pages and 20 questions.
- Write down the serial number of the question in the left side of the margin before attempting it.

CLASS: VI
SUBJECT: MATHEMATICS

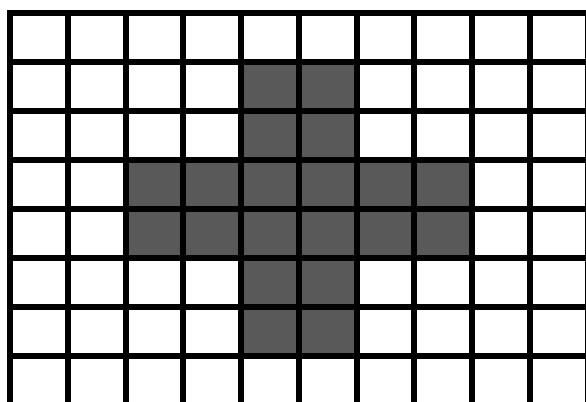**Time: 1 Hour 30 Minutes**   **Maximum Marks: 40**

General Instructions:
- *This question paper contains 4 sections: A, B, C & D.*
- *Section-A consists of 5 MCQs, 3 Fill in the blanks and 2 VSA of 1 mark each.*
- *Section-B consists of 3 SA−I type questions of 2 marks each.*
- *Section-C consists of 4 SA−II type questions of 3 marks each.*
- *Section-D consists of 3 Long Answer (LA) type questions of 4 marks each.*
- *Verify all the answers thoroughly before submission.*

SECTION – A (1 x 10 = 10)

Choose the correct answer.

1. What per cent is $\frac{1}{2}$ dozen of one score?

   a. 10 %   b. 60 %   c. 30 %   d. 25 %

2. In the given figure, the percentage of shaded portion is:

   a. 20%   b. 25%   c. 40%   d. 80%

3. If each matchbox contains 45 matchsticks, then the number of matchsticks required to fill 'n' such boxes

   a. 45 + n   b. 45 – n   c. 45 ÷ n   d. 45n

4. A wire in the shape of a square is bent to form a cicle.The perimeter of the square is same as
   - a. Diameter of the circle
   - b. Radius of the circle
   - c. Chord of the circle
   - d. Circumference of the circle
5. If length of the longest chord of a circle is 13.6 cm, then length of its radius is
   - a. 6.8cm
   - b. 13.6cm
   - c. 27.2cm
   - d. 272cm
6. 2.55% expressed as decimal is _____.
7. The interest on ₹6000 at 5% p.a. for 4 years is _____.
8. To bisect a line segment of length 8 cm, the opening of the compasses should be more than _____ cm.
9. Find the width of the circular track whose inner radius is 11cm and outer radius is 13 cm.
10. If an angle of 110^0 is bisected, find the measure of each angle formed.

SECTION – B (2 x 3 = 6)

11. The monthly salary of Amit is Rs. 12,000. If his salary increased by 15%, find his new monthly salary.
12. Write the product form of $8a^3$ and $(8a)^3$. Are they same?
13. Draw a circle of radius 3.6 cm. Also draw its diameter and name it.

SECTION – C (3 x 4 = 12)

14. A man buys a second-hand mobile phone for ₹12000 and spent ₹3000 on its repair. He sells it to his friend at ₹17500. What is his profit percent?
15. If a = 1, b = −2, c = −1, show that $2a – b + c = b^2 + ac$.
16. Draw a line segment XY of length 8 cm. At X, draw a circle of radius 5 cm. At Y, draw a circle of radius 4 cm. What do you observe?
17. Draw a line 'm'. From a point 'X' outside the line, construct a line perpendicular to line 'm' using compasses and ruler.

SECTION – D (4 x 3 = 12)

18. Ram borrowed Rs. 15,000 from his friend Shyam at 5% per annum for 3 years. Finally, he returned ₹10,000 and a dressing table. What is the cost of the dressing table?
19. Subtract the sum of $9b^2 – 3c^2$ and $2b^2 + bc – 2c^2$ from the sum of $2b^2 – 2bc – c^2$ and $c^2 + 2bc – b^2$.
20. Construct an angle of measure $22\frac{1}{2}^0$ using compasses and ruler.

*****