Name of School…………………………………………………..

Half Yearly Examination
Sesson – 2024-25

Class – 8   Subject – Maths   M.M. 50

All questions are compulsory.

1. Write the additive inverse each of the following.

   (i) $\dfrac{2}{8}$ (ii) $\dfrac{-5}{9}$

2. Solve the following equations:

   (i) x - 2 = 7   (ii) y + 3 = 10

3. Amina thinks of a number and subtracts from it. She multiplies the result by 8. The result now obtained is 3 times the same number she thought of. What is the number?

4. Find the measure of each exterior angle of a regular polygon of
   (i) 9 sides
   (ii) 15 sides

5. State whether True or False.
   (a) All rectangles are squares
   (b) All rhombuses are parallelograms
   (c) All squares are rhombuses and also rectangles
   (d) All squares are not parallelograms

6. Construct the following qua-drilaterals.
   (i) Quadrilateral MORE
   MO = 6 cm
   OR = 4.5 cm
   ∠M = 60°
   ∠O = 105°
   ∠R = 105°

7. List the outcomes you can see in these experiments.
   (a) Spinning a wheel
   (b) Tossing two coins together

8. Without adding, find the sum.

   (i) 1+ 3 + 5 + 7 + 9

   (ii) 1 + 3 + 5+ 7 + 9 + 11 + 13 + 15 + 17 + 19

9. Which of the following numbers are not perfect cubes?

   (i) 216   (ii) 128

10. Find the smallest number by which each of the following numbers must be divided to obtain a perfect cube.

    (i) 81   (ii) 128

11. Convert the following ratios to percentages.
    (a) 3 : 4   (b) 2 : 3

12. Calculate the amount and compound interest on
    (a) ₹ 10,800 for 3 years at $12\frac{1}{2}$% compounded annually.

    (b) ₹ 18,000 for $2\frac{1}{2}$ years at 10% per annum compounded annually.

13. Identify the terms, their coefficients for each of the following expressions.
    (i) $5xyz^2 - 3zy$ (ii) $1 + x + x^2$

14. Multiply the binomials
    (i) (2x + 5) and (4x - 3)
    (ii) (y - 8) and (3y - 4)