

Half Yearly Examination – 3

Class – 7

Full Mark: 50

Time: 1 Hour 30 minutes

Section – A, attempt all the questions

1. **[3 + 3 + 4]**a) Add $5x + 7y - 9z$, $5x - 7y + 2z$, $x - 3y - 2z$, $3z - 6x + 4y$ by column method.b) $5(p - 2) + 3(p + 1) = 33$, solve the equation.c) The sum of two rational number is -4 , if one of them is $\frac{-13}{12}$, find the other.2. **[3 + 3 + 4]**a) A bike is moving at an average speed of $\frac{7}{25}$ km per hour. How much distance it will cover in 5 hours?

b) Add 9.86 and 8.2 and subtract 7.6 from the result.

c) Subtract $1 - x + 4x^2 - x^3$ from $5x^3 - 2x^2 + 2x + 3$ by column method.

Section – B, attempt any three questions

3. **[3 + 3 + 4]**a) Simplify : 0.21 of $(23.4 - 14.2) + 56.2 - 45$.b) John weighs 45 kg. His brother Bob's weight is $\frac{2}{5}$ of John's weight. What is the weight of Bob?c) $(-8) \times \{ ___ + (-5) \} = (-8) \times 7 + (-8) \times (-5)$. Find the missing number in the equation.4. **[3 + 3 + 4]**a) A bike is moving at an average speed of $\frac{6}{5}$ km/h. How much distance it will cover in $\frac{5}{2}$ hour?b) Evaluate : $(3^6 \times 10^4 \times 5^2) \div (3^3 \times 2^4 \times 5^5)$

c) Divide 120 into two parts, so that the greater part is 5 times the smaller part. What is the greater part?

5. **[3 + 3 + 4]**

a) If $a = -10$, $b = -12$ and $c = 7$, then find the value of $(a + b - c)$.

b) Cost of a pen is Rs. $12\frac{3}{5}$ and cost of a pencil is Rs. $3\frac{2}{3}$. What is the total cost of 5 pens and 3 pencil?

c) What must be subtracted from $-p^2 + 2q^2 + 4r^2 - 4pqr$ to get $2p^2 - q^2 - 3r^2 + pqr$?

6.

[3 + 3 + 4]

a) If $\frac{y-4}{5} = \frac{y+3}{5} + \frac{y-4}{3}$, then find the value of y .

b) What must be added to 8.789 to get 20.376?

c) The length and breadth of a rectangular box are $(x + 3y)$ units and $(5x - y)$ units respectively. The perimeter of this rectangular box is equal to the perimeter of square box. Find how much is the area of the rectangular box is less than that of the square?