# BHARATH COACHING CENTRE

## SECTION-A $1 \times 6 = 6$

1. The value which satisfies an equation is called .......
2. Two thirds of the product of x and y added to the sum of x and y is equal to
3. If n denotes a natural number, what does 2n denotes?
4. If 5 is added to three times the product of two numbers m and n. The expression will be
5. The product of $\left(\dfrac{4p}{5} - 3\right), \left(\dfrac{5p}{8} - 6\right)$
6. The sum of $mn + (5 - 2)$ and $mn + 3$ is

## SECTION-B $5 \times 2 = 10$

1. If the $n^{th}$ term of a sequence is $n^2 + 3$, what will be its $5^{th}$ term?
2. The length of a rectangle is $2(x + 6)$cm and its width are half its length. What is its perimeter?
3. What must be subtracted from $a^3 - 4a^2 + 5a - 6$ to obtain $a^2 - 2a + 1$
4. What is the value of the expression $n^3 + 5n^2 - 2$ for $n = 5$ ?
5. Sathish is two times taller than Ravi. If Ravi is h meter tall, then Sathish's height is?

## SECTION-C $4 \times 3 = 12$

1. A vacuum cleaner set costs Rs.154.25. additional pipe cost of 3 vacuum cleaner set and 5 additional pipes?

2. The perimeter of a triangle is $4x-8$, one of the sides is $2x-4$ and another is $3x+8$. Find the third side.
3. Construct a right triangle ABC in which base $BC+4.8\,cm$, $\angle B=90°$, $AC=6.2\,cm$.
4. Subtract $3x^2-5y-2$ from $5y-3x^2+xy$ and find the value of the result if $x=2, y=-1$.

## SECTION-D                                   $3 \times 4 = 12$

1. Ram and sham collected Rs.70 in a week. After one week, ram withdrew Rs. x and sham withdrew Rs. y from the total amount of money. What is the total amount of money left?
2. From the sum of $8a-5b+3, 6a+3b+5$ subtract the difference of $2a-3b+8, a+2b+6$.
3. Find the value of the given expressions when $a=0, b=-1, c=1$
   a. $a^3-b^3$
   b. $a^2+2ab+b^3$
   c. $3ab+3ac+c^2$
   d. $\dfrac{5a}{10}-4b$