SERIES - 1	IMP SERIES Introduced by "CGBSE SUPPORT"	Important Questions for Chhattisgarh Board Exam '2021'

CLASS – 10th **Subject – Mathematics**

"Polynomials"

5 Marks Questions.

1. If divisor = $3x^2-2x+2$, quotient = $x+1$, remainder = 3 then what is the dividend.
2. If the area of a rectangle is $45x^2+30x$ square meter and its breadth is $15x$ m then what is value of length?
3. If $p(x) = x^3+3x^2-5x+8$ is divided by the following, then find the remainder with the help of remainder theorem.
4. Verify the following whether g(x) is a factor of p(x)
   a. $g(x) = x-1$; $p(x) = x^3+5x^2-5x+1$
   b. $g(x) = x+1$; $p(x) = 2x^3+x^2-2x+1$
5. Find the value of a when g(x) is a factor of p(x).
   a. $g(x) = x+1$; $p(x) = x^2+ax+2$
   b. $g(x) = x-1$; $p(x) = ax^2-5x+3$
   c. $g(t) = t-3$; $p(t) = t^2+2at - 2a+3$
6. If a polynomial f(x) is divided by $x^2 - 9$ then remainder is $3x+2$, what will be the remainder when the same polynomial is divided by $(x-3)$?
7. Factorize:
   a. $7x^2-2x-5$
   b. $12x^2-24x+12$
   c. $\sqrt{3y^2}+9y+6\sqrt{3}$
   d. $144x^2+24x+1$
8. Zeroes of some polynomials of the form ax^2+bx+c are given below:
   Find the factors of the polynomials.
   a. (3,4)
   b. (-2,3)

9. Find the sum and product of zeroes of the following polynomials.
    a. $2x^2-7x-9$
    b. $-5x^2+3x+4$
10. Is (x-2), a factor of polynomial $p(x) = x^3-3x^2+4x- 4$?
11. Factorize the polynomial $6x^2-5x-6$.

'3' Marks Questions:

1. Find the quotient and remainder on dividing $2y^3+4y^2+3y+1$ by y+1.
2. Prove that on dividing polynomial $4x^3+3x^2+2x-9$ by x-1 the remainder is zero.
3. Divide polynomial $2x^3-3x^2-x+3$ by the polynomial $2x^2- 4x+3$.
4. Divide the polynomial $a^3-3a^2b+3ab^2- b^3$ by the polynomial a-b.