OPTIMUM
INTERNATIONAL SCHOOL

CLASS –X

Maths

Date:-29/04/2020

CHAPTER 2 –POLYNOMIALS

- **Watch the online videos "POLYNOMIALS -Lecture 6& 7 " from Optimum Online E-Learning Platform and try to comprehend the concepts of Division algorithm . After that try to solve the questions given in your assignment.**
- **Lecture No. 06**
- **Lecture No.07**

1. **Apply division algorithm to find the quotient q(x) and remainder r(x) on dividing f(x) by g(x) in each of the following:**

i. **f(x) = $x^3 - 6x^2 + 11x - 6, g(x) = x^2 + x + 1$**
ii. **f(x)=$10x^4 + 17x^3 - 62x^2 + 30x - 3, g(x) = 2x^2 + 7x + 1$**
iii. **f(x)=$4x^3 + 8x^2 + 8x + 7, g(x)2x^2 - x + 1$**
iv. **$f(x) = 15x^3 - 20x^2 + 13x - 12, g(x) = x^2 - 2x + 2$**

2. **Check whether the first polynomial is a factor of the second polynomial by applying the division algorithm:**
   i. **g(t)=$t^2 - 3; f(t) = 2t^4 + 3t^3 - 2t^2 - 9t - 12$**
   ii. **g(x)=$x^3 - 3x + 1; f(x) = x^5 - 4x^3 + x^2 + 3x + 1$**
   iii. **g(x)= $2x^2 - x + 3; f(x) = 6x^5 - x^4 + 4x^3 - 5x^2 - x - 15$**

3. **Obtain all zeroes of the polynomial f(x)=$2x^4 + x^3 - 14x^2 - 19x - 6$, if two of its zeroes are -2 and -1.**
4. **Obtain all zeroes of f(x)=$x^3 + 13x^2 + 32x + 20$, if one of its zeros is -2.**
5. **Obtain all zeroes of the polynomial f(x) = $x^4 - 3x^3 - x^2 + 9x - 6$, if the two of its zeroes are $-\sqrt{3}$ and $\sqrt{3}$.**
6. **. Obtain all zeroes of the polynomial f(x)=$2x^4 - 2x^3 - 7x^2 + 3x + 6$, if the two of its zeroes are $-\sqrt{(3/2)}$ and $\sqrt{(3/2)}$.**
7. **Find all the zeroes of the polynomial $x^4 + x^3 - 34x^2 - 4x + 120$,if the two of its zeros are 2 and -2.**

****Link of Optimum Online E-Learning Platform:- www.optimumschool.net/online**
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