INDIAN SCHOOL DARSAIT
DEPARTMENT OF MATHEMATICS

Subject : MATHEMATICS	Topic : POLYNOMIALS	Date of Worksheet : 04/05/2017
Resource Person: Mrs.Indu .P		Date of submission : 11/05/2017
Name of the Student _____	Class &Division:_____	Roll Number : ___

S.No.	Section A-[Basic skills]
1.	Find the value of x , if $(x + 3) = -5(x – 2)$
2.	$30 + \frac{3-15}{7} =$
3.	$33327 \div 161 =$
4.	$456 \times 34.6 =$
5.	$2345.6 - 306.87 =$

Sl.No.	Section B-[CHAPTER BASED QUESTIONS]	Marks
1.	If one zero of the polynomial $f(x) = (k^2 + 4)x^2 + 13x + 4k$ is reciprocal of the other , then find the value of k	1
2.	If the product of zeros of the polynomial $f(x) = ax^3 – 6x^2 + 11x – 6$ is 4, then find a	1
3.	If x+a is a factor of $2x^2 + 2ax + 5x + 10$,find a	2
4.	Find the zeros of the polynomial $4\sqrt{3}x^2 + 5x - 2\sqrt{3}$, and verify the relationship between the zeros and co-efficients.	3
5.	What must be added to the polynomial $9x^4 - 4x^2 + 4$ so that the resulting polynomial is exactly divisible by $3x^2 + x - 1$?	3
6.	What must be subtracted from the polynomial $6x^3 + 11x^2 - 39x - 65$ so that the resulting polynomial is exactly divisible by $x^2 + x - 1$?	3
7.	It is given that 1 is one of the zeros of the polynomial $f(x) = 7x - x^3 - 6$. Find the other zeros.	3
8.	Divide $(x^3 + 3x^2 - 5x + 4)$ by (x-2) and verify Division Algorithm.	4

9.	If the zeros of the polynomial $x^3 + 3x^2 + x + 1$ are a-b, a and a+b , find the values of a and b.	4
10.	Use remainder theorem to find the value of k, it being given that when $x^3 + 2x^2 + k\,x + 3$ is divided by (x-3), then the remainder is 21.	4
11.	If α and β are the zeros of the polynomial $f(x) = x^2 + x + 1$, then find i) $\frac{1}{\alpha} + \frac{1}{\beta}$ ii) $\alpha^2 + \beta^2$ iii) $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$ iv) $\frac{1}{\alpha^2} + \frac{1}{\beta^2}$	4
12.	Obtain all the zeros of $x^4 + 4x^3 - 2x^2 - 20x - 15$, if two of its zeros are $\sqrt{5}$ and $-\sqrt{5}$.	4