

## OOP Lab 5

**Topic:** Operator Overloading

**Marks:** (15)

**Release Date:** 29-Oct-20 Thursday

**Submission Date & Time:** 31-Oct-20 11:59 PM Saturday

**You may send your lab queries at:** asktoknow42@gmail.com

### Exercise 1: (15)

Implement a class Polynomial having following specifications.

Class Polynomial {

**private:**

int array[15]; //you may assume index of the array is degree of the polynomial

**public:**

Polynomial(); //default ctor

Polynomial operator+(const Polynomial&);

int evaluate(int n);

//also perform this operation by overloading parenthesis ( )

**friend** void operator <<(ostream &, const Polynomial&)

//prints polynomial, e.g.  $5x^3 - 7x^2 + 9$  is displayed as follows:  $5x^3 - 7x^2 + 9$

**friend** void operator >>(istream &, Polynomial&)

/\*takes input. The function first prompt user for highest degree and then starting from the respective term in the array it prompts user to input for coefficient of every term in decreasing order of their powers. It must allow negative coefficients.\*/

};

**Make the functions `const` wherever possible.**