**ASSIGNMENT # 03**



**Object Oriented Programming**

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Class Section: **B**

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“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic

**DEPARTMENT OF COMPUTER SYSTEMS ENGINEERING,**

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**Q:** Create a class called set ………………………… otherwise 0 is stored…

**CODE**

**class** Set {

**private:**

int arr[50];

**public:**

Set () { **// No-argument constructor**

for (int i = 0; i < 50; i++) {

arr [i] = 0;

}

}

void insert (int value) { **// insert () function**

if (value >= 0 && value < 50) {

arr [value] = 1;

}

}

void delete (int value) { **// delete () function**

if (value >= 0 && value < 50) {

arr [value] = 0;

}

}

Set operator + ( const Set& other) { **// Overloaded operator+ for union**

Set result;

for (int i = 0; i < 50; i++) {

result.arr[i] = arr[i] || other.arr[i];

}

return result;

}

Set operator\*(const Set& other) { **// Over loaded operator\* for intersection**

Set result;

for (int i = 0; i < 50; i++) {

result.arr[i] = arr[i] && other.arr[i];

}

return result;

}

Set operator~() {  **// Over loaded operator~ for complement**

Set result;

for (int i = 0; i < 50; i++) {

result.arr[i] = !arr[i];

}

return result;

}

void display() {  **// display () function**

for (int i = 0; i < 50; i++) {

if (arr[i] == 1) {

cout << i << " ";

}

}

cout << endl;

}

};