

OOP Lab 3

Topic: Functions and Arrays

Marks: 30 (each function carries 5 marks)

Release Date: 08-Oct-20 Thursday

Submission Date & Time: 10-Oct-20 11:59 PM Saturday

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

Create class **Set** that can hold integers in the range 0 through 100, having following private data members.

int* set;

int size;

Provide following public member functions:

- a) **Set(int size=0)** Constructor initializing data members. After setting up size of a set, it should prompt user to fill in the contents of set. In case of invalid value, it must ask user to re-enter the value.
- b) **Set(const Set& s)** Write a copy constructor
- c) **Set union(const Set& s) const** Creates a third set that is the union of *this* set and the set passed in parameter.
- d) **Set intersection(const Set& s) const** Creates a third set that is the union of *this* set and the set passed in parameter.
- e) **bool isEqualTo(const Set& s) const** Determines whether *this* set and the set passed through parameter are equal.
- f) **void print() const;** Prints the set.

Now write a driver program to test your **Set** class. Instantiate several **Set** objects. Test that all your member functions work properly.