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**BST-BCS-11a :** Algorithms and Data Structures

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**Exam Type :** Quiz 1

**Name, last name :**

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**Question.** Write a C program that generates 6 random numbers between 1 and 49 inclusive, stores them into an array, prints the unsorted numbers, sorts the array elements in ascending order, and prints the sorted numbers again. No duplicate numbers are allowed. The main program is to be as concise as possible. For example,

**#include** <stdio.h>

**#include** <stdlib.h>

**#include** “**nameLastnameLibary.h**” // This is the file that holds all the

// functions in your main program

int main(int argc, char \*argv[]){

// define an array to hold 6 numbers

………… // one statement only

// call number generator to populate the array with 6 unique numbers between 1 and 54

………… // one function call only

// print the unsorted array

………… // one function call only

// sort the array in place

………… // one function call only

// print the sorted array

………… // one function call only

return 0; // successful ending of the program

}// end of main function

***Notes***

1. *The above main program is almost complete, you will need to fill the dotted areas only*
2. *You need to develop 3 functions only: a function for generating 6 unique numbers between 1 and 49 and storing into an array, a function that prints the content of a given array, and a function that sorts an array in ascending order (you may use your earlier program you developed as an exercise in earlier lectures.*
3. *You need to mail (to*  [hasan.dag.extern@srh.de](mailto:hasan.dag.extern@srh.de)) *both your library file and main file both named as* ***yourNameLastnameLibrary.h*** *and* ***yourNameLastName\_Quiz1.c***