Programming Fundamentals LAB – BSEF19
(Both Morning and Afternoon)
Lab 08 – HOMETASK

Task 01 (10)

Code the following function to check weather array passed to it is sorted in ascending order in the range of indices passed after array name. Later, write complete the program and test the working of isSorted function.

```
bool isSorted(int a[], int start, int end);
```

Task 02 (10)

Code the following function to return integer cube root of its parameter. Integer cube root mean only integer part of the answer like integer division. Later, write complete the program and test the working of cbrt function.

```
int cbrt(int num);
```

Task 03 (10)

You have already learned procedure of converting a decimal number (base 10) into an equivalent binary number (base 2) sometime in your school life. As a reminder, repeatedly dividing the quotient (starting from decimal number itself) by 2 till it becomes 0 and picking the remainders in reverse order will give binary number. Write a definition of a function named dec2bin, that just prints the reverse binary of decimal value received as its parameter. Later, write complete the program and test the working of dec2bin function.

Task 04 (10)

Write a function to return the sum of products (product means multiplication of kth element of each) of two equal size float arrays. Later, write complete the program and test the working of the function.

Task 05 (10)

Consider data arrays to stores only positive numbers. A programmer has written several functions to manipulate such data arrays by placing data values at contiguous indices from 0 onwards and place an end of data marker after them. Rest of allocated space in array is garbage and never considered as data. He has taken that end of data marker as -1 a negative value which never be appeared as data. A lot of work is remaining, and deadline is approaching, and fortunately you are hired to code some functions to manipulate such data. Here you have to provide code to join (append) data in array named nd to array named data, assuming data array have necessary and sufficient space. Later, write complete the program and test the working of join function.

```
void join(int data[], int nd[]);
```

Thanks, for your patience