



EASTERN UNIVERSITY, SRI LANKA
DEPARTMENT OF MATHEMATICS
FIRST YEAR EXAMINATION IN SCIENCE - 2016/2017
FIRST SEMESTER (AUG./SEP., 2018)
CS 152 - INTRODUCTION TO PROGRAM DESIGN AND
PROGRAMMING (PRACTICAL)
REPEAT

Answer all questions

Time allowed: Two Hours

Q1. Write a C++ program that reads an unspecified number of integers and determines how many numbers are above or equal to the average and how many numbers are below the average. Enter a negative number to signify the end of the input. Assume that the maximum size of the array is 100.

Eg:

Enter the numbers, the input ends if it is negative number: 4 2 1 3 30 -45

The Average is 8

Greater or Equal the average is 1

Less than average is 4

[40%]

Q2. Declare a Structure for Water Supply records consisting of the following fields:

User Name

Address

No of Units

Write a C++ program to calculate the monthly Water bill including functions to do the following task:

- Rs. 100 for first 5 units(0-5);
- Rs. 15 per unit for 6-10 units;
- Rs. 23 per unit for 11-15 units;

- Rs. 30 per unit for 16-20 units;
- Rs. 50 per unit for any unit beyond 20 units.

Eg:

Name: Ranjith

Address: Colombo

No of units: 17

Monthly charge : Rs. 350