THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME: LEVEL 03
DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE
NO BOOK TEST II: 2016/2017
CPU1141 : INTRODUCTION TO COMPUTER PROGRAMMING
DURATION: ONE HOUR ONLY (1 HOUR)

Date: 25th May 2017   Time: 4.15 p.m. – 5.15 p.m.

Instructions

- This paper contains **TWO** questions which carry a total of 100 marks, 50 marks each.
- Answer all questions.
- Consider that all questions are related to **C Programming Language**.

Question 01.

(a) Construct function prototypes that match the following descriptions:

a) igor() takes no arguments and has no return value.
b) average() takes no arguments but return a float value.
c) calculate() takes an integer argument and return square root of the number.
d) increment() takes two integers and increment their values by one.
e) spark() takes one float, one integer as arguments and return a float value. Also increment the integer value by one.

(b) What is the output of the following program?

```c
#include<stdio.h>
void test (int arr[]) {
        arr[1] = 5;
}
int main(){
        int a [] = {4, 6, 8};
        printf("%d", a[1]);
        test(a);
        printf("%d", a[1]);
        return 0;
}
```

Question 02.

(a) Find the output of the following program:

```c
#include<stdio.h>
int x=40;
int main()
{
    int x=20;
    printf("%d\n", x) ;
    return 0;
}
```

(b) What is wrong with the following code?

```c
#include <stdio.h>
int main()
{
    union test
    {
        int i;
        int j;
    };
    union test var=10;
    printf("%d,%d\n", var.i, var.j);
}
```

(c) Write a complete C program to compare the lengths of two strings S1 and S2.

If S1>S2 print "S1 is greater than S2".

If S2>S1 print "S2 is greater than S1".

If S1 and S2 are same print "S1 and S2 are same".