

THE OPEN UNIVERSITY OF SRI LANKA
 B.Sc. DEGREE PROGRAMME- LEVEL 3
 CLOSED BOOK TEST:2 (CBT:2) -2010
 CPU 1141 - INTRODUCTION TO COMPUTER PROGRAMMING
 DURATION: ONE AND HALF HOURS



Date: 25th October, 2010

Time: 4.00 pm - 5.30 pm

Answer ALL Questions

Q1).

- i. Briefly describe the three (03) types of *user define data types* in Pascal using appropriate examples.
- ii. There is a record called "employee" which holds information such as Employee ID, Name, and Joined Date. Write a Pascal program to read the data of three employees and to calculate their experience according to the current date. Check whether the experience is equal or more than 3 years and display the names of them.

Q2).

- i. What are the basic data types in C language?
- ii. What are the values of p, q, r and s in the following C program?

```
#include<stdio.h>
main()
{
    int x=8, y=2, a=3, b=4;
    int p, q, r, s;
    p = x++ + (y--);
    q = x+2*b++;
    r = y-2*a;
    s = --a + (--b);
}
```

- iii. Write a program to read an integer number and check whether it is an odd number or an even number using *conditional operators* in C language.

Q3).

- i. Write the syntax of the "*for*" loop in C language.
- ii. Write a C program to add the first seven terms of the following series.

$$\frac{1}{1!} + \frac{2}{2!} + \frac{3}{3!} + \dots$$

Note: $n! = n \times (n-1) \times (n-2) \times \dots \times 1$

- iii. Rewrite the following Pascal program in C language.

```
PROGRAM myFirst(INPUT, OUTPUT);  
VAR i, j: integer;  
BEGIN  
    i:=0;  
    j:=0;  
    WHILE i<10 DO  
    BEGIN  
        j:= j + 2*i;  
        i:= I + 1;  
    END;  
    Writeln ('j=', j);  
END.
```

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