



THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME: LEVEL 03
CLOSED BOOK TEST - 2: 2013/2014
CPU1141: INTRODUCTION TO COMPUTER PROGRAMMING

DURATION: ONE HOUR (1 HOUR)

Date: 10th April 2014

Time: 12.45pm – 01.45pm

Answer ALL questions.

Q1.

- a) Briefly describe the three types of Pascal **Operators**.
- b) Write down the output value of X, Y, Z if A=8, B=5 and C=3.

$$X := (2 + B * 5 - C) / A;$$
$$Y := C * A \bmod B + C;$$
$$Z := A * B \operatorname{div} C + A \bmod C * 2;$$
- c) What are the differences between the **Repeat Until** loop and **While** loop in Pascal programming language.
- d) Write the output of the program given below.

```
PROGRAM example (INPUT,OUTPUT);
  VAR
    i, j: integer;
  BEGIN
    FOR i := 2 TO 50 DO
      BEGIN
        FOR j := 2 TO i DO
          IF (i MOD j) = 0 THEN
            break;
          IF (j = i) THEN
            WRITELN(i, ' is prime' );
        END;
      END.
    END.
```

- e) Convert the above Pascal program in to C program.

Q2.

- a) Write the **two advantages** of using arrays in programming languages?
- b) State whether the following C statements are **True** or **False**.
 - i. The array declared as **int num[15]** has fifteen element in the array.
 - ii. The expression **num[15]** refers the fifteenth element in the array.
 - iii. The expression **num[1]** refers the second element in the array.
- c) Write a complete C program to **read** six marks a student has scored in six consecutive exams and **display** the highest score out of the six marks. (Note- Use **for loops** with **arrays** and a defined constant for size of the array).

***** All Rights Reserved *****