



THE OPEN UNIVERSITY OF SRI LANKA  
B. SC. DEGREE PROGRAMME – LEVEL 03  
CLOSED BOOK TEST-1 (2010/2011)  
CPU1141: INTRODUCTION TO COMPUTER PROGRAMMING

DURATION: ONE AND HALF HOURS

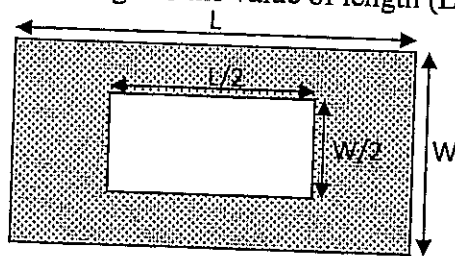
01<sup>st</sup> October 2010

4.00 p.m. – 5.30 p.m.

Answer ALL Questions.

Q1).

- a) Classify the following according to the four basic data types in Pascal programming language.
- A
  - 62.08
  - 2568
  - 12.68E+23
- b) Write down the output value of A, B, C and D, if P=5 and Q=6.
- $A := 2 * P + Q \text{ div } 2$
  - $B := (P \text{ div } 3 + Q) \text{ div } 2$
  - $C := (P - Q) \text{ mod } Q + P \text{ div } 2$
  - $D := P + Q + 2$
- c) Write a complete Pascal program to print the *area of the shaded section* in the following diagram, when the user gives the value of length (L) and width (W) of the large square.



Q2).

- Write the syntaxes of all Repetition Structures in Pascal Language.
- Describe distinguish between “while” and “repeat-until” loop in Pascal language by giving suitable examples for each.
- Write a complete Pascal program to print the sum of odd numbers between 1 and 100 using an appropriate repetition structure.

Q3).

- a) Use *case* statement to replace the following *if-else-if* statements.

```
If (mark<20) then
    Grade:= 'F'
Else If (mark<40) then
    Grade:='R'
Else If (mark<50) then
    Grade:='D'
Else If mark<70 then
    Grade:='B'
Else
    Grade:='A';
```

- b) Write a complete Pascal program to test whether the input character is a lower case or an upper case letter. Other than that, the program should recognize the numbers and deliver an appropriate message. For any other non-alphabetic characters it should displays 'This is a special character'.

*Note:- Upper case letter corresponds to codes from 65 to 90*

*Lower case letter correspond to codes from 97 to 122*

*Digits correspond to codes from 48 to 57*

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