Sri Lanka Institute of Information Technology

Bachelor of Science in Information Technology

Mid Term Examination
Year 1, Semester 1, 2011
Monday, 23rd March 2011

Computer Programming Techniques & Practices (N101)

Duration: 1 Hour
(Time 03.00 p.m. – 04.00 p.m.)

Instructions to Candidates

- This paper contains **TWO (2)** Questions on **ONE (1)** Page.
- Answer **ALL** questions **on the WORKBOOK provided.**

QUESTION ONE (Total: 18 marks): Introduction

(a) How are languages divided into levels? [2 marks]

(b) What is the Instruction set? [2 marks]

(c) Name two types of translators and list one important difference. [4 marks]

(d) What is debugging? [2 marks]

(e) What is the importance of designing solutions before the implementation? [4 marks]

(f) Compare and contrast desk checking vs. walkthrough. [4 marks]

QUESTION TWO (Total: 22 marks): Flow charts and pseudo codes

(a) Draw the flow chart for the following problem description. [10 marks]

A program asks the user to enter two numbers. First number indicates the start of a series and the second number indicates the end. It counts the number of odd and even numbers between the start and end and then displays the counters as output. An example is given below.

Example

Enter starting value : 4
Enter ending value : 10

Number of Odd values: 3
Number of Even values: 4

(b) Write the pseudo code for the following problem description. [12 marks]

A user is asked to enter positive numbers between 1 to 5 and he enters numbers one at a time. User enters 999 to indicate that he has no more numbers to enter. Develop an algorithm to print the most frequent number entered. An example is given below.

Example

Enter values : 1
Enter values : 2
Enter values : 3
Enter values : 5
Enter values : 4
Enter values : 1
Enter values : 999
1 is the most frequent number

End of the paper