



## Informatics Institute of Technology

### 4COSC006C: Programming Principles 01(Design)

#### Tutorial 5 – Pseudocode

1. Write a Pseudocode to read 20 numbers and to get their total. Then the total will be displayed on the screen. Perform a desk checking for the input of first two numbers if they are 40 and 50..
2. Write a Pseudocode that describes an algorithm which allows the user to input three numbers and then prints the largest of these numbers and the sorted numbers.  
Perform a desk checking if the input numbers are 30,20,10 respectively.
3. Construct a Pseudocode for a program that will obtain 10 exam scores from the user and determine whether the score is passing (a score of 60 or above) or failing. Your Algorithm should count the number of passing and failing scores. Output the average of the scores, the number of failing scores, and the number of passing scores. List the necessary variables for this program. Perform a desk check with the following values: 75, 25, 51, 49, 88, 12, 22, 23, 52, and 78.
4. The Dash Cell Phone Company charges customers a basic rate of \$5 per month to send text messages. Additional rates are as follows:
  - The first 60 messages per month, regardless of message length are included in the basic bill.
  - An additional 5 cents is charged for each text message after the 60th message up to 180 messages.
  - An additional 10 cents is charged for each text message after the 180th message.
  - Federal, state and local taxes add a total of 12% to each bill.

Design a Pseudocode for the program that accepts the following data about one customer's bill : customer area code (three digits), customer phone number (seven digits) and number of text messages sent.

Display all the data, including the month-end bill both before and after taxes are added.

The program will continuously accept data about text messages until a sentinel value, 999 is entered as the customer's area code.

Perform a desk check by using a minimum of three test data sets. However one test data set should be aimed at checking the condition prior to calculating the month-end bill.