Vavuniya Campus of the University of Jaffna

First Examination in Information Technology - 2018

First Semester - September/October 2019

IT1134 Fundamentals of Programming (Practical)

Answer all Questions

Time : Three hours

Instructions:

You are requested to create a folder on desktop with your index number (e.g.: ITXXXX) and save all your files into that folder.

1. Write a program for an *Authentication System* using suitable structures to perform the following tasks.

   (a) Read the name of a user.

   (b) Read four digit password (from 1000 to 9999) from the user.

   (c) Re-read the password.

   (d) Greet the person with a note, if he/she entered correct password, otherwise give him/her two more chances to re-enter.

   (e) Terminate the person's access, if he/she entered incompatible passwords in his/her third attempt. [30%]

2. You are required to read an integer value from a user and display whether the given number is prime or not. Write a C++ program with the aid of function.

   Sample run of the program is given below:

   Enter a number: 11

   Number 11 is a prime number. [30%]

3. A shopping complex provides vehicle parking for different vehicles in different parking lots for its customer as shown in Table 1.

Table 1: Vehicle Parking

	Van	Car	Cab	Motor Bike
Lot-1	13	9	10	32
Lot-2	10	18	20	34
Lot-3	8	20	15	40

You are required to write a C++ program to display the following menu:

1. The total number of vehicles in each parking lot.
2. The total number of vehicles in each type
3. The total number of vehicles in all the parking lots and all the vehicle types
4. Exit

The user should enter the correct number based on the menu. If the user enter a number other than 1, 2, 3, or 4, then print the error message and ask the user to re-enter the correct option.

[*This question is continued on the next page*]

To achieve the option given in the menu, perform the following tasks appropriately:

1. Display the total number of vehicles in each parking lot.
2. Display the total number of vehicles in each type.
3. Display the total number of vehicles in all the parking lots and all the vehicle types.
4. Exit the program,

Example:

Enter the option: 1

Lot-1 - 64

Lot-2 - 82

Lot-3 - 83 [40%]