Vavuniya Campus of the University of Jaffna

First Examination in Information and Communication Technology - 2015

Second Semester - January/February 2017

ICT1262 Practical for Operating Systems

Answer All Questions

Allowed Time: **Three hours**

---

1. Write a shell script and name it with your index number *(e.g. IT1234.sh)* to perform each of the following tasks:

   (a) Print the User name.   [05%]

   (b) Read First Name and Last Name from the user.   [10%]

   (c) Read the Gender from the user.   [05%]

   (d) Read the Age from the user.   [05%]

   (e) Print the Title and the Name with Initial where initial is the first letter of First
       name and the title is defined as follows: [15%]

       - "Master.", if the Gender is Male and Age is less than 18 years

       - "Mr.", if the Gender is Male and Age is greater than 17 years

       - "Ms.", if the Gender is Female

2. Write a C program (*Program_A*) which contains each of the following functions:

   (a) readData(): to get Name, Address, and ten Marks from the user as input.   [05%]

   (b) calculate(): to find the total of ten marks, average of ten marks, and the status
       "Pass" if the average is grater than or equal to 50 else *"Fail"*.   [10%]

(c) printDetail(): to print the Name, Address, and the Message as given below: [15%]

- "Passed the Course", if all the marks are greater than 29 and average is greater than 49.

- "Re-Sit Some Subjects", if some marks are less than 30 and average is greater than 49.

- "Re-Sit All Subjects ", if all marks are less than 30.

(d) sendToB(): to send the Name and the Message to another *program_B* using *named Pipe(s)* . [10%]

3. Write a C program (*Program_B*) to perform each of the following:

(a) Read the values sent from Program A using *named Pipe(s)* and add it to a string. [10%]

(b) Create a simple text file named "Student.txt" if it does not exist in the present working directory. [05%]

(c) Add the string read from the *named Pipe(s)* in part 3(a) to the file created in part 3(b). [05%]

2