SOUTH EASTERN UNIVERSITY OF SRI LANKA

FIRST EXAMINATION IN BACHELOR OF INFORMATION AND COMMUNICATION TECHNOLOGY - 2015/2016

SEMESTER – I, JULY 2017

SWT 11022 - PRACTICAL FOR FUNDAMENTALS OF PROGRAMMING

Answer all Questions   **Time: 03 hours.**

- **Create a folder with your Index number in the desktop.**

- **Create folder for each question within the above folder (Ex: Q1, Q2, Q3, Q4)**

- **Save the files to the appropriate folder, according to the instruction given on each question.**

- **Frequently save the files and confirm when you submit to the examiner.**

Question 01:

A. Write down a program using C language, to enter the 10 marks, and calculate the **AVERAGE** and **HIGHEST** marks among them.

   Hint:
   - Use integer Array and loop
   - The program should validate the marks values should be in the range of 0 to 100 inclusive
   - **No need user defined functions,** implement within main function

   (15 Marks)

B. Write a C program that prints below shape

```
*
* *
* * *
* * * *
* * * * *
* * * * *
* * * *
* * *
* *
*
```

   (10 Marks)

   [Total 25 Marks]

Question 02:

A. Implement a C program using user defined function for the following scenario

Function Name	Functionality
readNumbers	to store 10 random integers into an array.
checkNumber	while reading distinguish odd and even numbers to two separate arrays.
printOdd	Print odd numbers.
printEven	Print Even numbers.

Hint: Use Appropriate return type, parameters if any for the functions

(15 Marks)

B. Write a C Program to calculate factorial of a given number using **recursion**

(10 Marks)

[Total 25 marks]

Question 03:

Write a C program using structures to perform the following tasks

- Define a structure **Date** to store the date as day, month and year separately as integer values

- Define another structure **Employee** to store the employees' details (name of the employee, salary and the hired date)
  Hint: use nested structures (for the hired date use Date structure)

- Store 3 employee details and display them. Take Screen shot using Sniping tool in Microsoft Windows and save that screen shot of the output window with the **Q03displaySNAP.jpg**

(15 marks)

[Total 15 marks]

Question 04:

Write 'C' programs to handles the following text file with the below functionality

  a. Create a file **Q04file.txt** in the folder **Q4** , which was created inside the main folder (Index no) at the desktop and write the following text inside the file (Q4a.c)

  "Information Communication Technology"

  b. Read the **Q04file.txt** file and display the content. Take Screen shot using Sniping tool in Microsoft Windows and save that screen shot of the output window with the **Q04filereadingSNAP.jpg** (Q4b.c)

  c. The program will ask to enter next line then it should append the following lines to the above file (throughout the program input) (Q4c.c)

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  d. Again, Read the Q04file.txt file and display the content. Take Screen shot using Sniping tool in Microsoft Windows and save that screen shot of the output window with the **Q04filereadingSnap2.jpg**

(35 marks)

[Total 35 marks]

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Index Number:

I	C	T				

| QUESTIONS | FILES | CHECKED BY | | MARKS |
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Question 01	Q1A.c			
	Q1B.c			
Question 02	Q2A.c			
	Q2B.c			
Question 03	Q3.c			
	Q03displaySNAP.jpg			
Question 04	Q4a.c			
	Q4b.c			
	Q4c.c			
	Q04filereadingSNAP.jpg			
	Q04filereadingSnap2.jpg			