**DEPARTMENT OF ICT, CFS IIUM**

**SEMESTER 2, SESSION 2021/2022**

**ICT0525 – INTRODUCTION TO PROGRAMMING**

**ASSIGNMENT 2 (35 marks)**

**QUESTION:**

Little Munchkin Kindergarten is introducing the new monthly fee for year 2022:

|  |  |  |
| --- | --- | --- |
| **Category** | **Household income (RM)** | |
| **(A)**  **5000 and above** | **(B)**  **Below 5000** |
| 1. Childcare   (2 months - 3 years) | 370 | 350 |
| 1. Pre-school   (4 years – 6 years) | 330 | 300 |
| 1. Transit   (7 years-12 years) | 200 | 150 |

Draw flowcharts and write a C program that fulfils the following requirements.

* 1. Function *Input()* prompts and reads these input data:
* The parents’ household income (A or B)
* The category of the child (1, 2, or 3).
  1. Function *CalculateFee()* receives the information of the parents’ income & child category. It calculates the total fee and discounted fee.
* The parents will get a 10% discount if they have more than 1 child enrolled in the kindergarten.
* Store the monthly fee in a two-dimensional array named *Fees* in this subfunction.
  1. Function *Output()* prints the total fee and discounted fee.
  2. Your program will loop based on the no. of children enrolled in the kindergarten. The repetition structure to do this must be created in main() function.
  3. Use local or global variables whenever appropriate.

The sample output is as below:

|  |
| --- |
| WELCOME TO LITTLE MUCHKIN KINDERGARTEN  How many children to enroll? 2  Household income (A or B): **C**  Invalid  Household income (A or B): **A**  Child #1  ========  Category (1, 2 or 3): **4**  Invalid  Category (1, 2 or 3): **2**  The monthly fee is RM 330  Child #2  ========  Category (1, 2 or 3): 3  The monthly fee is RM 200  Total fee is RM530  Discounted fee is RM 477  Thank you for using this system. |

Save your files frequently in multiple storage devices (pendrive, online storage etc) as a backup**.** Snap/scan your flowchart in softcopy (use *CamScanner*, camera phone etc). Type your source code using DevCpp.

You are given 2 HOURS to complete it. Your answers must be submitted **BY/BEFORE** 10.30 pm the same day. Only 2 files needed for submission, the flowchart (any format pdf.jpg/docx etc.) and the source code (**.c** program).

You MUST submit the following items into i-Ta’Leem using the given file name format.

|  |  |
| --- | --- |
| **Item** | **File name** |
| Flowchart | Save the file as ***Section\_MatricNo\_Name*.pdf** |
| Source code | Save the file as ***Section\_MatricNo\_Name*.c** |

*Please* ***DON’T COPY*** *other people’s work!* ***ZERO MARK*** *will be awarded!*

*~~~Copying Is Easy, Getting Caught Is Easier~~~*

*☺ HAPPY PROGRAMMING & GOOD LUCK ☺*