**Conditional Structure Exercises**

1) Write a pseudocode, draw a flowchart, and write a program to prompt the maximum and minimum temperature readings on a particular day, accept those readings as integers, and calculate and display to the screen the average temperature, calculated by (maximum temperature + minimum temperature)/2.

2) Write a pseudocode, draw a flowchart, and write a program to calculate Body Mass Index (BMI). Refer to the below category to categorize the user accordingly to their BMI.

Those with BMI less than 18.5, are considered underweight. For BMI less than 20, they are normal. For BMI less than 30, they are overweight otherwise they are categorized as obese.

3) Write a pseudocode, draw a flowchart, and write a program to read a customer’s name, a purchase amount, and a tax code. The tax code has been validated and will be one of the following:

|  |  |
| --- | --- |
| **Code** | **Tax** |
| 0 | tax exempted (0%) |
| 1 | good tax only (6%) |
| 2 | good tax and service (16%) |

The program must then compute the tax imposed and the amount due, and print the customer’s name, purchase amount, tax imposed, and total amounts due.

4) Write a pseudocode, draw a flowchart, and write a program to find the largest numbers between 2 numbers given by a user. Find the difference between these two numbers. Make sure only the larger number only allowed to be minus the smaller number.

5) Write a pseudocode, draw a flowchart, and write a program to design a calculator that has all these four operations namely add, subtract, multiply, and divide.

Sample of the calculator program.

Calculator Program

1. ADD

2. SUBTRACT

3. MULTIPLY

4. DIVIDE