**Week 2 – Exercises**

1. **Notes: input/output statement**

input1 = "James"  
input2 = "Mary"  
input3 = "Sally"  
input4 = 123

print("hello")  
print("Good Morning")  
print("Good Morning", input1)  
print("Good Morning" + input2)  
print("Good Morning %s" % input3)  
print('Today looks cloudy')  
print("""This is a Python Module.  
There will be a final exam and group assignment for this module""")

1. **Questions**

Answer all the following problems. Please use various print() functions as above. Create and compile your answers in the .doc file.

1. Write a pseudocode and write a python code to calculate area of rectangle.

Start

Declare “length, width, area”

Prompt “Enter the length of the rectangle”, length

Prompt “Enter the width of the rectangle”, width

Read “width, length”

Calculate “area = width \* length”

Read “area”

Print “The area of the rectangle is: {area}”

End

2. Draw a flowchart and write a python code to calculate employee income tax based on the following formula:

Tax = 0.25 \* (monthly income \* 11 – number of kids \* 450)

Your program will display the name of the employee and amount of tax on the screen.

A diagram with black lines

Description automatically generated

3. Write a pseudocode and a write a Python code to receive an integer from the user, add 5 to it, double it, subtract 7 from it, and display the final number on the screen.

Start

Declare num1, final\_num

Prompt “Enter a number: ”, num1

Calculate “final\_num = (num1 + 5) \* 2 – 7”

Read “num1, final\_num”

Print “final\_num”

End

4. Draw a flowchart and write a Python code to calculate area and circumference of circle.

A diagram of a flowchart

Description automatically generated

5. Write a pseudocode and write a Python code to calculate and print the average of three numbers: 20, 10, and 2.

Start

Declare “num1, num2, num3 avgNum”

Input “num1 = 20, num2 = 10, num3 = 2”

Calculate “avgNum = (num1 + num2 + num3) / 3

Print “The average number of the three numbers is: avgNum”

End