

## **FINAL EVALUATION**

### **PYTHON PROGRAMMING LANGUAGE**

**DURATION: 1:45 MINS**

**Instructions: Answers 7 questions, Number 1, 5 and 9 is compulsory, Pick any 4 others.**

**Remember, this evaluation has a lot to do with your certification.**

**You are advised not to cheat in any for, its an advice and not a must, since it's not a must you get certified too.**

#### **1) Variable Data Types**

- a) Create a variable called "Date\_Of\_Birth" and assign it the year you were born (or any random year) using the right datatype. Print the value of the variable.
- b) What is the difference between an integer and a floating-point number in Python? Backup your explanation with an example for each.
- c) Explain the types of Logical operators with scenerios.

#### **2) Basic Operations**

- a) Write a Python program that adds two numbers together and prints the result.
- b) Write a Python program that takes a number as input and multiplies it by 10. Print the result.

#### **3) Control Structures**

- a) Write a Python program that checks if a number is even or odd. If the number is even, print "Even", otherwise print "Odd".
- b) Write a Python program that takes a number as input and checks if it is positive, negative, or zero. Print the result.

#### **4) Lists, Loops and Data Structure**

- a) Create a list of numbers from 1 to 10. Print each number in the list using a loop.
- b) Write a Python program that takes a list of numbers as input and returns the sum of all the numbers in the list.
- c) Create a dictionary 'colleague\_name' storing all your colleague names. Hint: Use sequence of numbers as their key.

#### **5) Functions**

- a) Write a Python function that takes three numbers as input and **return** their multiplication.
- b) Write a Python function that takes a list of numbers as input and returns the average of all the numbers in the list.
- c) Greet a User: Write a function `greet_user(name)` that takes a person's name as input and returns a greeting message.

Example: Output: "Hello, Alice! Welcome!"

- d) Calculate Simple Interest: Write a function `simple_interest(principal, rate, time)` that calculates simple interest.

Example: Input: `simple_interest(1000, 5, 2)`

Output: 100.0

- e) Convert Minutes to Seconds: Write a function `minutes_to_seconds(minutes)` that converts a given number of minutes into seconds.

Example:

Input: `minutes_to_seconds(5)`

Output: 300

## 6) Libraries and Modules

- a) Install and Import the "math" module and use its "sqrt" function to calculate the square root of a number.
- b) Install and Import the "random" module and use its "randint" function to generate a random number between 1 and 10.
- c) Install and Import the "pywhatkit" module and use its "whatsapp" function to send a DM to your tutor with the body "Good Day Sir"

## 7) Explain the following terms relating to Python programming Language with examples where needed

- a) Escape Sequence
- b) Keywords
- c) Datatypes
- d) Dictionary
- e) Module
- f) Interpreter
- g) Give a brief history of python, who built it, what led to Python and others, state the current version of python you are using.

- 8) Mentions some tools used the career listed below, write extensively on the career you are choosing after this course. Explain what the career entails and the problem skilled professionals in the career solve in the real-world market.
- a) Data Scientist
  - b) Software Engineer
  - c) Data Engineer
  - d) Data Analytics
  - e) Web Developer (Backend Developer)
  - f) Machine Learning Engineer
- 9) Give a feedback on this Python course, your instructor and this examination.

**BEST OF LUCK**