Python Programming LAB Sessions

School of Engineering & Technology (SOET)

Name of the Program:	**MCA**	**Semester : I**	**Level: PG**
Course Name	**Python Programming Lab**	**Course Code and Course Type**	**PMC102 / MAJM**
Course Pattern	**2024**	**Version**	1.0

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LAB-2

Sr No	Practical Title	Week No. / Turn 1	Details	CLO	Hours
2	Overview on different Data types of Python	Week 2 and 3	a) Demonstrate the following Operators in Python with suitable examples. i) Arithmetic Operators ii) Relational Operators iii) Assignment Operator iv) Logical Operators v) Bit wise Operators vi) Ternary Operator vii) Membership Operators viii) Identity Operators	CLO1	4

***Instructions:**

1. ***Write the programs in both interactive mode and script mode.***
2. ***Make the programs user-friendly in script mode by displaying clear instructions and messages for the user on the output screen. As a developer, add comments wherever necessary.***
3. ***Save each program in a folder with your name.***
4. ***Keep a copy of the output for each program for future reference.***

Arithmetic Operators

1. **WAP to calculate the average of three numbers.**
2. **WAP to find the area and circumference of a circle.**
3. **WAP to convert a temperature from Celsius to Fahrenheit.**
   [Formula is: F = (C * 9/5) + 32]
4. **WAP to calculate simple interest.** [Formula: SI = (P * R * T) / 100]

Relational Operators

5. **WAP to compare two numbers using relational operators.**
   (Input two numbers and display the results of comparing them using >, <, >=, and <=.)

6. **WAP to check if two numbers are equal or not.**
   (Input two numbers and check if they are equal or not using == and !=.)

7. **WAP to find the maximum of three numbers using relational operators.**

Assignment Operators

8. **WAP to demonstrate the use of compound assignment operators.**
   (Use a variable and apply compound assignment operators (+=, -=, *=, /=, %=).)

Logical Operators

9. **WAP to demonstrate the use of logical operators.**
   (Use three Boolean variables and show the results of and, or, and not operators by combining them in different expressions.)

Bitwise Operators

10. **WAP to perform bitwise operations on two integers.**
    (Input two integers and demonstrate the results of bitwise &, |, ^, and ~ operations.)

11. **WAP to demonstrate bitwise shift operations on an integer.**
    (Input a number and print the result of left shift (<<) and right shift (>>) operations on it.)

Membership Operators

12. **WAP to check membership of an element in a list.**
    (Input a number and check if it is present in a predefined list of numbers using in and not in operators.)

Identity Operators

13. **WAP to check the identity of two variables.**
    (Input two variables with the same and different values and check their identity using is and is not operators.)

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