**🧠 Part A – MCQ (10 Questions)**

(Choose the correct option)

1. What will be the output of print(10 // 3)?

a) 3.33 b) 3 c) 3.0 d) Error

2. Which of the following operators has the highest precedence?

a) and b) or c) not d)

3. What is the output of:

a = 5

a += 2

print(a)

a) 7 b) 5 c) 10 d) 2

4. What will x be after execution of this code?

x = 10

if x > 5:

x = x + 10

else:

x = x - 10

a) 0 b) 10 c) 20 d) 15

5. Which keyword is used to skip the current iteration in a loop?

a) break b) exit c) skip d) continue

6. Output of the following:

for i in range(2, 10, 2):

print(i, end=" ")

a) 2 3 4 5 6 7 8 9

b) 2 4 6 8

c) 2 4 6 8 10

d) 3 5 7 9

7. What is the output of 5 > 3 and 2 < 1?

a) True b) False c) Error d) None

8. Which of the following is a valid comparison operator in Python?

a) =! b) => c) != d) <>

9. What will this code print?

i = 0

while i < 3:

print(i)

i += 1

a) 0 1 2 b) 1 2 3 c) 0 1 2 3 d) Infinite loop

10. Which operator is used to check equality?

a) = b) == c) != d) ===

**Part B – Practical (10 Coding Questions)**

1. Write a program to check whether a number entered by the user is even or odd.

2. Write a program to find the greatest of three numbers entered by the user.

3. Write a program that takes a number and prints whether it is positive, negative, or zero.

4. Write a program to print the sum of all numbers from 1 to n (where n is user input).

5. Write a program to print the multiplication table of any given number.

6. Write a program to count how many digits are in a given number.

7. Write a program to print all even numbers between 1 and 50.

8. Write a program to print the following pattern:

9. Write a program to print the reverse of a given number.

10. Write a program to print this pattern:

1

12

123

1234

## **📘 Part C – Theoretical Questions (5 Marks)**

1. Explain the difference between **“=”** and **“==”** operators in Python with an example.
2. What is the difference between **break**, **continue**, and **pass** statements in loops? Give examples.
3. What is the purpose of **conditional statements** in Python? Explain the syntax of if-elif-else.
4. Define **loops** in Python. What is the difference between for loop and while loop?
5. What are **pattern programs** in Python? Explain with an example how nested loops help in printing patterns.