



INFORMATICS PRACTICES **ASSIGNMENT 2** **JULY 2026**
CLASS XI

Q1. What is meant by "control flow" of a program? Name the three types of control structures used in Python with one example of each.

Q2. Differentiate between a simple statement and a compound statement in Python, with an example of each.

Q3. Write the output of the following code segment:

```
python
a = 25
b = 30
if a > b:
    print("A is bigger")
elif a == b:
    print("Both are equal")
else:
    print("B is bigger")
```

Q4. Write a Python program to accept the age of a person and check whether the person is eligible to vote ($\text{age} \geq 18$) using an if-else statement.

Q5. Write a Python program using if-elif-else to accept a number from the user and check whether it is positive, negative, or zero.

Q6. Find the error(s), if any, in the following code and rewrite the corrected code:

```
python
num = 10
if num > 0
print("Positive Number")
```

Q7. Differentiate between a for loop and a while loop in Python. When would you prefer one over the other?

Q8. Explain the range() function with examples for the following: (a) range(6) (b) range(3,

12) (c) range(20, 0, -5)

Q9. Write a Python program using a for loop to display the multiplication table of a number entered by the user (1 to 10).

Q10. Write a Python program using a while loop to find the sum of the first n natural numbers, where n is entered by the user.

Q11. Find the output of the following code segment:

```
python
count = 1
while count <= 5:
    print(count * count)
    count += 1
```

Q12. Write a Python program using a for loop to count and display the number of vowels present in a string entered by the user.

Q13. Differentiate between the following pairs of statements, explaining what each creates:

(a) L1 = [] and L2 = list()

(b) L3 = [10] and L4 = [10, 20, 30]

Q14. Write Python statements to create a list named Fruits containing the elements "Apple", "Banana", "Mango", "Grapes". Then write statements to:

(a) Display the element at index 2

(b) Display the last element of the list using negative indexing

Q15. Find the output of the following code segment:

```
python
Marks = [45, 67, 89, 23, 78, 91]
print(Marks[1:4])
print(Marks[:3])
print(Marks[-3:])
print(Marks[::-2])
```

Q16. Write a Python program to traverse a list of numbers using a for loop and display only the even numbers from the list.

Q17. What is list slicing? Write the general syntax of slicing a list and explain the role of start, stop, and step with a suitable example.

Q18. Find the output of the following code segment, and name the list operation being demonstrated in each part:

```
python
L1 = [1, 2, 3]
L2 = [4, 5, 6]
print(L1 + L2)
print(L1 * 2)
print(3 in L1)
print(7 in L2)
```

Q19. Write the output of the following code segment, and explain what each list method does:

```
python
Numbers = [12, 45, 7, 89, 23]
Numbers.append(50)
Numbers.insert(1, 99)
Numbers.remove(7)
Numbers.sort()
print(Numbers)
print(len(Numbers))
print(max(Numbers))
print(min(Numbers))
```

Q20. Write a Python program that accepts 5 numbers from the user, stores them in a list using the `append()` method, and then displays the sum (using `sum()`), the largest number (using `max()`), and the list sorted in descending order (using `sort(reverse=True)`).