

# Python Assessment – Class 7

Level: Easy to Medium

Total Questions: 50

Sections: Theory and Programming

## Section A: Theory Questions (25)

1. What is Python?

Answer: Python is a simple and easy-to-learn programming language.

2. Who developed Python?

Answer: Python was developed by Guido van Rossum.

3. Write one use of Python.

Answer: Python is used to make games, websites, and applications.

4. What is a variable?

Answer: A variable is used to store data in a program.

5. Which is a correct variable name: 1name or my\_name?

Answer: my\_name

6. What are datatypes?

Answer: Datatypes tell the type of data stored in a variable.

7. Name any three datatypes.

Answer: int, float, string

8. What is an integer?

Answer: A whole number without decimals is called an integer.

9. What is a string?

Answer: A group of characters written inside quotes.

10. What is input() used for?

Answer: It is used to take input from the user.

11. What is print() used for?

Answer: It is used to display output on the screen.

12. What is a conditional statement?

Answer: It is used to make decisions in a program.

13. Name a conditional statement.

Answer: if statement

14. What is a loop?

Answer: A loop repeats a block of code.

15. Name two loops.

Answer: for loop and while loop

16. What is a nested loop?

Answer: A loop inside another loop.

17. What is a function?

Answer: A function is a block of code that performs a task.

18. Why do we use functions?

Answer: To reuse code and reduce repetition.

19. What is recursion?

Answer: When a function calls itself.

20. What is NumPy?

Answer: A library used for numerical operations.

21. What is Pandas used for?

Answer: To work with tables and data.

22. What is Matplotlib?

Answer: A library used to draw graphs.

23. What is OOP?

Answer: Object-Oriented Programming.

24. What is a class?

Answer: A blueprint for creating objects.

25. What is an object?

Answer: An instance of a class.

## Section B: Programming Questions (25)

26. Print Hello World.

Answer:  
print("Hello World")

27. Store your name in a variable and print it.

Answer:  
name = "Ram" print(name)

28. Add two numbers.

Answer:  
a = 10 b = 5 print(a + b)

29. Take a number from user and print it.

Answer:  
num = input("Enter number: ") print(num)

30. Check even or odd.

Answer:  
num = int(input("Enter number: ")) if num % 2 == 0: print("Even") else: print("Odd")

31. Print numbers from 1 to 10.

Answer:  
for i in range(1,11): print(i)

32. Print name 5 times.

Answer:  
for i in range(5): print("Ram")

33. Print even numbers from 1 to 20.

Answer:  
for i in range(2,21,2): print(i)

34. Find sum of numbers 1 to 10.

Answer:  
total = 0 for i in range(1,11): total += i print(total)

35. Print star pattern.

Answer:  
for i in range(3): print("\*\*\*\*")

36. Function to add two numbers.

Answer:  
def add(a,b): print(a+b) add(3,4)

37. Function to check even or odd.

Answer:  
def check(n): print("Even" if n%2==0 else "Odd")

38. Factorial using loop.

Answer:  
fact = 1 n = 5 for i in range(1,n+1): fact \*= i print(fact)

39. Factorial using recursion.

Answer:  
def fact(n): return 1 if n==1 else n\*fact(n-1) print(fact(5))

40. Create NumPy array.

Answer:

```
import numpy as np arr = np.array([1,2,3]) print(arr)
```

41. Sum of NumPy array.

Answer:

```
print(arr.sum())
```

42. Create Pandas DataFrame.

Answer:

```
import pandas as pd df = pd.DataFrame({"Name":["A","B"],"Marks":[50,60]}) print(df)
```

43. Display marks column.

Answer:

```
print(df["Marks"])
```

44. Plot a line graph.

Answer:

```
import matplotlib.pyplot as plt plt.plot([1,2,3],[4,5,6]) plt.show()
```

45. Create Student class.

Answer:

```
class Student: def __init__(self,name): self.name=name
```

46. Class with method.

Answer:

```
class Hello: def say(self): print("Hello")
```

47. Print table of 5.

Answer:

```
for i in range(1,11): print(5*i)
```

48. Check pass or fail.

Answer:

```
marks=45 print("Pass" if marks>=40 else "Fail")
```

49. Print reverse numbers.

Answer:

```
for i in range(5,0,-1): print(i)
```

50. Simple calculator (add).

Answer:

```
a=int(input()) b=int(input()) print(a+b)
```