

# 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)`