

For Engineering Students (Viva Questions)

Unit 1: The Way of the Program

1. Python is a _____ programming language.
a) Low-level b) Machine-level c) High-level d) Assembly
 2. Which of the following is used to display output in Python?
a) echo() b) display() c) print() d) output()
 3. A sequence of instructions written to perform a task is called a _____.
a) Variable b) Program c) Operator d) Function
 4. Finding and fixing errors in a program is called _____.
a) Compiling b) Executing c) Debugging d) Interpreting
 5. Which error occurs when Python cannot understand the program structure?
a) Runtime error b) Semantic error c) Syntax error d) Logical error
 6. Which error occurs during execution of a program?
a) Syntax error b) Runtime error c) Semantic error d) Typographical error
 7. A program that runs without crashing but gives incorrect output contains a _____.
a) Syntax error b) Runtime error c) Semantic error d) Compile-time error
 8. Which symbol is used for comments in Python?
a) // b) /* */ c) # d) --
 9. Python programs are executed line by line using a/an _____.
a) Compiler b) Interpreter c) Assembler d) Loader
 10. Experimental debugging means _____.
a) Guessing without testing b) Testing the program with different inputs
c) Writing comments d) Removing loops
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Variables, Expressions and Statements

11. Which of the following is a valid Python data type?
a) integer b) float c) string d) All of the above
12. Which function is used to find the type of a variable?
a) datatype() b) type() c) checktype() d) typeof()
13. Which of the following is a valid variable name?
a) 2value b) my-name c) total_marks d) class
14. Which of the following is a Python keyword?
a) value b) while c) marks d) total
15. The statement `x = 10` is an example of _____.
a) Expression b) Assignment statement c) Loop d) Operator
16. Which operator is used for exponentiation in Python?
a) ^ b) ** c) // d) %%
17. What is the output of `10 // 3`?
a) 3.33 b) 3 c) 1 d) 4

18. Which operator gives the remainder of division?
a) / b) // c) % d) **
19. What is the output of $5 + 2 * 3$?
a) 21 b) 11 c) 15 d) 9
20. Which function converts a string into an integer?
a) str() b) float() c) int() d) chr()
21. Which function converts a value into a floating-point number?
a) float() b) int() c) str() d) bool()
22. What is the output of `print("Hello" + "World")`?
a) Hello World b) Hello+World c) HelloWorld d) Error
23. Which operator is used for string repetition?
a) + b) * c) % d) /
24. Which function is used to get input from the user?
a) scan() b) cin() c) input() d) get()
25. What is the default data type returned by `input()`?
a) int b) float c) string d) boolean
26. Which of the following has the highest precedence?
a) + b) * c) % d) ()
27. The expression `"5" + "3"` produces _____.
a) 8 b) 53 c) Error d) 15
28. Which of the following is an operand in the expression `a + b`?
a) + b) a c) b d) Both b and c
29. The % operator is also known as the _____ operator.
a) Division b) Modulus c) Multiplication d) Exponential
30. Which statement is used to display multiple values?
a) show() b) display() c) print() d) output()
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Iteration

31. Repeated execution of a set of statements is called _____.
a) Decision making b) Iteration c) Assignment d) Compilation
32. Which loop is best used when the number of iterations is known?
a) while loop b) do-while loop c) for loop d) infinite loop
33. Which keyword is used to terminate a loop immediately?
a) stop b) exit c) break d) continue
34. Which keyword skips the current iteration and continues with the next iteration?
a) skip b) pass c) continue d) next
35. Which loop condition is checked before execution of the loop body?
a) do-while b) for c) while d) Both b and c
36. What is the output of:

```
for i in range(3):  
    print(i)
```


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

37. Which function is commonly used with the for loop in Python?
a) list() b) range() c) loop() d) next()
38. In the Collatz sequence, if a number is even, it is divided by _____.
a) 3 b) 5 c) 2 d) 4
39. Nested loops are mainly used for _____.
a) Error handling b) Multi-dimensional data processing
c) Function calling d) String conversion
40. A table containing rows and columns is called a _____ table.
a) One-dimensional b) Two-dimensional c) Single-level d) Linear
41. Which loop can become infinite if the condition never becomes false?
a) for loop b) while loop c) nested loop d) None of these
42. Updating a variable means _____.
a) Deleting a variable b) Reassigning a new value to it
c) Declaring a constant d) Printing a variable
43. Which statement correctly updates the variable x by 1?
a) $x + 1$ b) $x = x + 1$ c) $x == x + 1$ d) $x := 1$
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Functions

44. A function is a _____ block of code.
a) Reusable b) Temporary c) Random d) Conditional
45. Which keyword is used to define a function in Python?
a) function b) define c) def d) func
46. Which statement is used to return a value from a function?
a) break b) continue c) return d) output
47. In the function `def add(a, b):`, a and b are called _____.
a) Operators b) Parameters c) Keywords d) Variables
48. Which of the following is a function call?
a) `def sum()` b) `return x` c) `sum(5, 6)` d) `print = 5`
49. What is the output of:

```
def square(x):  
    return x * x  
  
print(square(4))
```


a) 8 b) 16 c) 4 d) Error
50. Functions improve program _____.
a) Complexity only b) Readability and reusability c) Compilation speed only
d) Memory usage only
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Answer Key

Q.No Ans Q.No Ans Q.No Ans Q.No Ans Q.No Ans

1 c 11 d 21 a 31 b 41 b

2 c 12 b 22 c 32 c 42 b

3 b 13 c 23 b 33 c 43 b

4 c 14 b 24 c 34 c 44 a

5 c 15 b 25 c 35 d 45 c

6 b 16 b 26 d 36 b 46 c

7 c 17 b 27 b 37 b 47 b

8 c 18 c 28 d 38 c 48 c

9 b 19 b 29 b 39 b 49 b

10 b 20 c 30 c 40 b 50 b