

Python Final Assessment

1. What is the primary purpose of the `if` statement in Python?
 - a. Iteration
 - b. Decision making
 - c. Function definition
 - d. Exception handling
2. Which of the following is a correct way to comment in Python?
 - a. `// This is a comment`
 - b. `/* This is a comment */`
 - c. `# This is a comment`
 - d. `-- This is a comment`
3. How is an empty list created in Python?
 - a. `list()`
 - b. `[]`
 - c. `empty_list()`
 - d. `None`
4. Which function is used to get the length of a list in Python?
 - a. `size()`
 - b. `length()`
 - c. `len()`
 - d. `count()`
5. What is the purpose of the `range()` function in Python?
 - a. Generating a sequence of numbers
 - b. Performing arithmetic operations
 - c. Iterating over a list
 - d. Finding the range of values in a list
6. In Python, how do you open a file in binary mode for reading and writing?
 - a. ``open("file.txt", "rb+")``
 - b. ``open("file.txt", "r+")``
 - c. ``open("file.txt", "bw")``
 - d. ``open("file.txt", "wb+")``
7. Which keyword is used to define a function in Python?
 - a. `func`
 - b. `def`

- c. function
- d. define

8. What does the `__init__` method do in a Python class?

- a. Initializes the class object
- b. Defines the class
- c. Invokes the superclass constructor
- d. Represents the class destructor

9. What is the purpose of the `super()` function in Python?

- a. Calls a method from the superclass
- b. Creates a superclass instance
- c. Accesses class attributes
- d. Initializes the subclass

10. Which of the following is the correct syntax for a list comprehension in Python?

- a. `[x for x in range(10)]`
- b. `{x for x in range(10)}`
- c. `(x for x in range(10))`
- d. `x for x in range(10)`

11. How do you remove an item from a list in Python?

- a. `delete`
- b. `remove()`
- c. `pop()`
- d. `erase()`

12. What does the `__str__` method in Python do?

- a. Converts an object to a string
- b. Defines a string variable
- c. Prints a string to the console
- d. Searches for a substring

13. Which operator is used for exponentiation in Python?

- a. `^`
- b. `.`
- c. `*^`
- d. `//`

14. What is the purpose of the `try` and `except` blocks in Python?

- a. Defining a function
- b. Exception handling

- c. Looping
- d. File I/O

15. Which of the following is an immutable data type in Python?

- a. List
- b. Tuple
- c. Set
- d. Dictionary

16. What is the purpose of the `break` statement in a loop?

- a. Terminates the loop prematurely
- b. Skips the current iteration
- c. Restarts the loop
- d. Continues to the next iteration

17. Which method is used to convert a string to lowercase in Python?

- a. `tolower()`
- b. `lower()`
- c. `casefold()`
- d. `convertlower()`

18. In Python, how do you check if a key is present in a dictionary?

- a. `key in dict`
- b. `dict.contains(key)`
- c. `dict.hasKey(key)`
- d. `key.exists(dict)`

19. What is the purpose of the `pass` statement in Python?

- a. Terminates the program
- b. Skips the current iteration
- c. Continues to the next iteration
- d. Does nothing

20. Which of the following is a correct way to open a file in Python for reading?

- a. `file.open("filename", "r")`
- b. `open("filename", "w")`
- c. `file("filename", "r")`
- d. `open("filename", "r")`

21. What does the `__name__` variable represent in a Python script?

- a. Current date
- b. Script name

- c. Line number
- d. Execution status

22. Which module is used for regular expressions in Python?

- a. ``re``
- b. ``regex``
- c. ``regexp``
- d. ``regexpy``

23. What is the purpose of the ``zip()`` function in Python?

- a. Compresses a file
- b. Creates a zip archive
- c. Combines two or more iterables element-wise
- d. Unzips a file

24. Which statement is used to raise an exception manually in Python?

- a. ``throw``
- b. ``raise``
- c. ``exception``
- d. ``error``

25. In Python, what is the purpose of the ``with`` statement when working with files?

- a. Opens the file
- b. Closes the file automatically after execution
- c. Reads the file
- d. Writes to the file

26. What does the ``len()`` function return when called on a string?

- a. Number of lines in the string
- b. Number of characters in the string
- c. Number of words in the string
- d. Number of vowels in the string

27. Which method is used to sort a list in place in ascending order?

- a. ``list.sort()``
- b. ``sorted(list)``
- c. ``list.order()``
- d. ``sort(list)``

28. What is the purpose of the ``map()`` function in Python?

- a. Creates a map of keys and values
- b. Applies a function to each item in an iterable

- c. Maps a function to a variable
- d. Generates a mapping between two lists

29. Which of the following is not a valid way to create a tuple in Python?

- a. `t = 1, 2, 3`
- b. `t = (1, 2, 3)`
- c. `t = [1, 2, 3]`
- d. `t = tuple(1, 2, 3)`

30.

What is the purpose of the `continue` statement in a loop?

- a. Terminates the loop
- b. Skips the current iteration and continues with the next
- c. Restarts the loop
- d. Jumps to the specified label