

# IT 21- Python Programming

## 1. What is Python?

- A. A snake species
- B. A programming language
- C. A type of graph
- D. A mathematical operation

**Answer: B. A programming language**

## 2. Which of the following best describes the role of Python in AI and Data Science?

- A. It's not used in AI or Data Science.
- B. It's used for web development only.
- C. It's used for creating desktop applications.
- D. It's extensively used for AI and Data Science projects.

**Answer: D. It's extensively used for AI and Data Science projects.**

## 3. Which of the following is the default graphical development environment for Python?

- A. VSCode
- B. PyCharm
- C. IDLE
- D. Spyder

**Answer: C. IDLE**

**4. Which of the following is not a Python object type?**

- A. Number
- B. Dictionary
- C. Vector
- D. String

**Answer: C. Vector**

**5. Which of the following is used to create a user-defined class in Python?**

- A. Class
- B. Define
- C. Struct
- D. Object

**Answer: A. Class**

**6. What is the purpose of the 'if' statement in Python?**

- A. To define a loop
- B. To define a function
- C. To make a decision
- D. To import a module

**Answer: C. To make a decision**

**7. What is the keyword used to define a function in Python?**

- A. func
- B. define
- C. def
- D. function

**Answer: C. def**

**8. Which of the following is true about decorators in Python?**

- A. They are used to add functionality to functions.
- B. They are used to remove functionality from functions.
- C. They are used to define classes.
- D. They are used to define modules.

**Answer: A. They are used to add functionality to functions.**

**9. What is the purpose of a lambda function in Python?**

- A. To define anonymous functions
- B. To create classes
- C. To import modules
- D. To iterate over a list

**Answer: A. To define anonymous functions**

**10. What is the primary use of regular expressions in Python?**

- A. Mathematical calculations
- B. Pattern matching and searching
- C. File handling

D. Graphics rendering

**Answer: B. Pattern matching and searching**

**11. Which of the following is NOT a part of exception handling in Python?**

A. try

B. catch

C. finally

D. except

**Answer: B. catch**

**12. What is the purpose of multithreading in Python?**

A. To handle multiple exceptions simultaneously

B. To execute multiple threads in parallel

C. To synchronize file operations

D. To perform pattern matching

**Answer: B. To execute multiple threads in parallel**

**13. Which function is used to read a file line by line in Python?**

A. read()

B. readlines()

C. readline()

D. readfile()

**Answer: C. readline**

**14. What is the primary use of NoSQL databases?**

- A. Storing structured data only
- B. Storing data in a tabular format
- C. Storing unstructured data
- D. Storing data in a relational manner

**Answer: C. Storing unstructured data**

**15. What is the purpose of NumPy in Python?**

- A. For numerical computing
- B. For web development
- C. For GUI programming
- D. For file handling

**Answer: A. For numerical computing**

**16. Which of the following is NOT a component of Pandas?**

- A. Series
- B. DataFrame
- C. Index objects
- D. Transposition

**Answer: D. Transposition**

**17. Which library is used for data visualization in Python?**

- A. NumPy
- B. Pandas

C. Matplotlib

D. Scikit-learn

**Answer: C. Matplotlib**

**18. What is the purpose of Index Hierarchy in Pandas?**

A. To organize data in a hierarchical manner

B. To sort data alphabetically

C. To align data from different sources

D. To calculate summary statistics

**Answer: A. To organize data in a hierarchical manner**

**19. What is the purpose of Text Analytics with NLP in Python?**

A. To analyze images

B. To analyze text data

C. To analyze audio data

D. To analyze video data

**Answer: B. To analyze text data**

**20. Which of the following is NOT a part of Python's syntax?**

A. Variable names are case-sensitive.

B. Indentation is used to define code blocks.

C. Statements are terminated by a semicolon.

D. Comments can be added using the '#' symbol.

**Answer: C. Statements are terminated by a semicolon.**

**21. What is the main role of Python in AI and Data Science?**

- A. It provides a platform for web development.
- B. It offers tools for creating mobile applications.
- C. It is widely used for data analysis and machine learning.
- D. It is mainly used for system administration tasks.

**Answer: C. It is widely used for data analysis and machine learning.**

**22. Which of the following is NOT a valid Python data type?**

- A. List
- B. Set
- C. Vector
- D. Tuple

**Answer: C. Vector**

**23. What is the purpose of the 'else' statement in Python?**

- A. To define an alternate condition
- B. To define a loop
- C. To handle exceptions
- D. To define a function

**Answer: A. To define an alternate condition**

**24. Which keyword is used to define a function in Python?**

- A. function
- B. define

C. func

D. def

**Answer: D. def**

**25. What are decorators used for in Python?**

A. To remove functionality from functions

B. To define classes

C. To add functionality to functions

D. To import modules

**Answer: C. To add functionality to functions**

**26. What is the purpose of a lambda function in Python?**

A. To define anonymous functions

B. To create classes

C. To import modules

D. To iterate over a list

**Answer: A. To define anonymous functions**

**27. What is the primary purpose of regular expressions in Python?**

A. Mathematical calculations

B. Pattern matching and searching

C. File handling

D. Graphics rendering

**Answer: B. Pattern matching and searching**



**28. Which of the following is NOT a part of exception handling in Python?**

- A. try
- B. catch
- C. finally
- D. except

**Answer: B. catch**

**29. What is the primary use of multithreading in Python?**

- A. To handle multiple exceptions simultaneously
- B. To execute multiple threads in parallel
- C. To synchronize file operations
- D. To perform pattern matching

**Answer: B. To execute multiple threads in parallel**

**30. Which function is used to read a file line by line in Python?**

- A. read()
- B. readlines()
- C. readline()
- D. readfile()

**Answer: C. readline()**

**31. What is the primary use of NoSQL databases?**

- A. Storing structured data only

- B. Storing data in a tabular format
- C. Storing unstructured data
- D. Storing data in a relational manner

**Answer: C. Storing unstructured data**

**32. What is the purpose of NumPy in Python?**

- A. For numerical computing
- B. For web development
- C. For GUI programming
- D. For file handling

**Answer: A. For numerical computing**

**33. Which of the following is NOT a component of Pandas?**

- A. Series
- B. DataFrame
- C. Index objects
- D. Transposition

**Answer: D. Transposition**

**34. Which library is used for data visualization in Python?**

- A. NumPy
- B. Pandas
- C. Matplotlib
- D. Scikit-learn

**Answer: C. Matplotlib**

**35. What is the purpose of Index Hierarchy in Pandas?**

- A. To organize data in a hierarchical manner
- B. To sort data alphabetically
- C. To align data from different sources
- D. To calculate summary statistics

**Answer: A. To organize data in a hierarchical manner**

**36. What is the purpose of Text Analytics with NLP in Python?**

- A. To analyze images
- B. To analyze text data
- C. To analyze audio data
- D. To analyze video data

**Answer: B. To analyze text data**

**37. Which of the following is NOT a part of Python's syntax?**

- A. Variable names are case-sensitive.
- B. Indentation is used to define code blocks.
- C. Statements are terminated by a semicolon.
- D. Comments can be added using the '#' symbol.

**Answer: C. Statements are terminated by a semicolon.**

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- A. It provides a platform for web development.

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- C. It is widely used for data analysis and machine learning.
- D. It is mainly used for system administration tasks.

**Answer: C. It is widely used for data analysis and machine learning.**

**39. Which of the following is NOT a valid Python data type?**

- A. List
- B. Set
- C. Vector
- D. Tuple

**Answer: C. Vector**

**40 What is the purpose of the 'else' statement in Python?**

- A. To define an alternate condition
- B. To define a loop
- C. To handle exceptions
- D. To define a function

**Answer: A. To define an alternate condition**

**41. Which keyword is used to define a function in Python?**

- A. function
- B. define
- C. func
- D. def

**Answer: D. def**

**42. What are decorators used for in Python?**

- A. To remove functionality from functions
- B. To define classes
- C. To add functionality to functions
- D. To import modules

**Answer: C. To add functionality to functions**

**43. What is the purpose of a lambda function in Python?**

- A. To define anonymous functions
- B. To create classes
- C. To import modules
- D. To iterate over a list

**Answer: A. To define anonymous functions**

**44. What is the primary purpose of regular expressions in Python?**

- A. Mathematical calculations
- B. Pattern matching and searching
- C. File handling
- D. Graphics rendering

**Answer: B. Pattern matching and searching**

**45. Which of the following is NOT a part of exception handling in Python?**

- A. try
- B. catch
- C. finally
- D. except

**Answer: B. catch**

**46. What is the primary use of multithreading in Python?**

- A. To handle multiple exceptions simultaneously
- B. To execute multiple threads in parallel
- C. To synchronize file operations
- D. To perform pattern matching

**Answer: B. To execute multiple threads in parallel**

**47. Which function is used to read a file line by line in Python?**

- A. read()
- B. readlines()
- C. readline()
- D. readfile()

**Answer: C. readline()**

**48. What is the primary use of NoSQL databases?**

- A. Storing structured data only
- B. Storing data in a tabular format
- C. Storing unstructured data

D. Storing data in a relational manner

**Answer: C. Storing unstructured data**

**49. What is the purpose of NumPy in Python?**

A. For numerical computing

B. For web development

C. For GUI programming

D. For file handling

**Answer: A. For numerical computing**

**50. Which of the following is NOT a component of Pandas?**

A. Series

B. DataFrame

C. Index objects

D. Transposition

**Answer: D. Transposition**