Chapter 1 Assessment

Here are 40 multiple-choice questions (MCQs) related to the topics discussed:

Python Basics and Naming Conventions:

1. What is the purpose of naming conventions in Python?
   - A) To confuse programmers
   - B) To enhance code readability and maintainability
   - C) To make code execution faster
   - D) To reduce code size

   Correct Answer: B

2. Which naming convention is recommended by PEP 8 for variable names?
   - A) camelCase
   - B) PascalCase
   - C) snake_case
   - D) kebab-case

   Correct Answer: C

3. Which of the following is a correct way to define a constant in Python?
   - A) `maxSize`
   - B) `max_size`
   - C) `MAXSIZE`
   - D) `MaxSize`

   Correct Answer: C

4. What does PEP 8 recommend for naming class names in Python?
   - A) camelCase
   - B) PascalCase
   - C) snake_case
   - D) UPPERCASE_WITH_UNDERSCORES

   Correct Answer: B

5. Why should single-character variable names be avoided in most cases?
   - A) They make the code faster
   - B) They are harder to type
   - C) They improve code readability
   - D) They are reserved for system variables

   Correct Answer: C

Dynamic Types:

6. What is dynamic typing in Python?
   - A) The ability to change variable types during runtime
   - B) The need to declare variables explicitly
   - C) The strict enforcement of variable types
   - D) The inability to use type casting

   Correct Answer: A

7. In Python, when is the type of a variable determined?
   - A) During compilation
   - B) During interpretation
   - C) During runtime
   - D) During execution

   Correct Answer: C

8. Which module can be used to access the list of Python keywords programmatically?
   - A) `sys`
   - B) `keyword`
   - C) `os`
   - D) `module`

   Correct Answer: B

9. What is the naming convention for constants representing maximum values in Python?
   - A) camelCase
   - B) PascalCase
   - C) snake_case
   - D) UPPERCASE_WITH_UNDERSCORES

   Correct Answer: D

10. Why is dynamic typing beneficial in Python?
   - A) It improves code security
   - B) It allows for more efficient code execution
   - C) It simplifies code by removing the need for type declarations
   - D) It enforces stricter type rules

   Correct Answer: C

Python Documentation:

11. Where can you find the official Python documentation?
   - A) python.org/docs
   - B) docs.python.org
   - C) pythondocs.com
   - D) pythondocs.org

   Correct Answer: B

12. Which section of the Python documentation provides information about the standard libraries?
- A) Getting Started
- B) Library Reference
- C) Language Reference
- D) Tutorials

Correct Answer: B

13. What is the purpose of searching for modules or functions in the Python documentation?
- A) To find code snippets
- B) To locate tutorials
- C) To get information about their usage and parameters
- D) To discover the release notes

Correct Answer: C

14. How can you access documentation from the Python interpreter interactively?
- A) Using the `man` command
- B) Using the `info` command
- C) Using the `help()` function
- D) Using the `doc()` function

Correct Answer: C

15. Which of the following statements is true about Python documentation comments?
- A) They are mandatory for every function
- B) They are used for compiler directives
- C) They are used to explain complex parts of the code
- D) They are only allowed in class definitions

Correct Answer: C

Getting Help:

16. Why is getting help important in Python development?
- A) To impress colleagues
- B) To avoid asking questions on forums
- C) To improve code readability
- D) To make code execution faster

Correct Answer: C

17. Where can you find Python community forums for asking questions and getting help?
- A) stackoverflow.com
- B) pythonforums.org
- C) reddit.com/r/learnpython
- D) All of the above

Correct Answer: D

18. What is the purpose of using built-in functions like `type()` and `help()` in Python?
- A) To improve code performance
- B) To access external libraries
- C) To provide information about the type of a variable or access help documentation
- D) To handle exceptions

Correct Answer: C

19. How can you check the type of a variable in Python interactively?
- A) Using `typeOf()`
- B) Using `var.type()`
- C) Using `type(var)`
- D) Using `var.typeOf()`

Correct Answer: C

20. Which method provides information about Python keywords programmatically?
- A) `keyword.list()`
- B) `python.getKeywords()`
- C) `keyword.kwlist`
- D) `help(keywords)`

Correct Answer: C

Python Reserved Words:

21. What are reserved words in Python also commonly known as?
- A) Keywords
- B) Identifiers
- C) Constants
- D) Variables

Correct Answer: A

22. What happens if you try to use a reserved

word as a variable name in Python?
- A) It produces a warning
- B) It results in a compilation error
- C) It is allowed without any issue
- D) It depends on the version of Python being used

Correct Answer: B

23. Where can you find the list of reserved words in Python?
- A) In the official Python documentation
- B) Using the `reserved_words` module

- C) In the `sys` module
- D) In the `builtins` module

Correct Answer: A

24. What is the purpose of reserved words in Python?
- A) To confuse programmers
- B) To enhance code readability and maintainability
- C) To make code execution faster
- D) To reduce code size

Correct Answer: B

25. Which module can be used to access the list of Python keywords programmatically?
- A) `sys`
- B) `keyword`
- C) `os`
- D) `module`

Correct Answer: B

Editing Python Files:

26. What is the purpose of editing Python files?
- A) To make them executable
- B) To modify the code
- C) To convert them to bytecode
- D) To create documentation

Correct Answer: B

27. How can you create a new Python script in IDLE?
- A) Click on "File" > "New File"
- B) Click on "Run" > "New Script"
- C) Press `Ctrl + N`
- D) Press `Ctrl + R`

Correct Answer: A

28. What should you do after writing Python code in a file?
- A) Save the file
- B) Close the file without saving
- C) Run the code immediately
- D) Delete the file

Correct Answer: A

29. How can you run a Python script in IDLE?
- A) Click on "Run" > "Execute"

- B) Press `F5`
- C) Click on "File" > "Run Script"
- D) Execute from the command line using `python script.py`

Correct Answer: B

30. What is the purpose of IDLE in Python?
- A) To execute Python code
- B) To edit and run Python code
- C) To create graphical user interfaces
- D) To create Python documentation

Correct Answer: B

Environment Variables:

31. What are environment variables used for in Python?
- A) To store sensitive information
- B) To set configuration parameters for a program
- C) To control the Python interpreter behavior
- D) To define reserved words

Correct Answer: B

32. How can you set an environment variable in Python?
- A) Using the `setenv()` function
- B) Using the `export` command in the terminal
- C) Programmatically using the `os` module
- D) By editing the Python source code

Correct Answer: C

33. Where are environment variables commonly used in Python?
- A) In Python scripts for configuration settings
- B) In function names
- C) In class definitions
- D) In mathematical calculations

Correct Answer: A

34. Which module in Python provides functions for interacting with the operating system, including environment variables?
- A) `os`
- B) `sys`
- C) `env`
- D) `config`

Correct Answer: A

35. Why are environment variables useful in Python development?
- A) They improve code execution speed
- B) They allow for secure storage of sensitive data
- C) They enable easy customization of program behavior
- D) They are required for Python to run on different platforms

Correct Answer: C

Executing Python from the Command Line:

36. How can you execute a Python script from the command line?
- A) Type `execute script.py`
- B) Type `run script.py`
- C) Type `python script.py`
- D) Type `start script.py`

Correct Answer: C

37. What is the purpose of the shebang line (`#!`) in a Python script?
- A) To comment out code
- B) To specify the Python interpreter to use
- C) To include external modules
- D) To indicate a code block

Correct Answer: B

38. How can you pass command-line arguments to a Python script?
- A) Using the `-c` option
- B) By adding them after the script name
- C) By specifying them in the shebang line
- D) By using the `args()` function

Correct Answer: B

39. What is the purpose of the `__name__` variable in Python scripts?
- A) To define the script's name
- B) To store the script's version number
- C) To check whether the script is being run as the main program or imported as a module
- D) To store the script's creation date

Correct Answer: C

40. What is the difference between running a Python script interactively and non-interactively from the command line?
- A) There is no difference
- B) Interactive mode allows for user input, while non-interactive mode does not
- C) Non-interactive mode requires a shebang line