



Course : Programming with Python Version-II

Duration : 1:00 Hours

Maximum Marks : 60

Note:

- Attempt all questions in Section A - (1 marks each).
- All questions are compulsory in Section B- (5 marks each). However, out of 4 questions 2 questions will have additional questions as internal choices.
- All questions are compulsory in Section C- (10 marks each). However, out of 2 questions 1 questions will have additional questions as internal choices.

Section A

- 1) Identify the statement that is **not true** about Python data types.?
 - a) Mutable objects can be modified after they are created.
 - b) Immutable objects can be altered without creating a new object.
 - c) Python provides explicit type conversion functions such as int(), float(), and str().
 - d) Lists are examples of mutable data types.
- 2) What is the purpose of the break statement in Python?
 - a) It immediately exits the loop in which it is executed.
 - b) It ignores the current iteration and moves directly to the next iteration.
 - c) It is restricted to use within while loops only.
 - d) It is restricted to use within for loops only.
- 3) How can a class be best described in Python?
 - a) An individual object created during program execution.
 - b) A structure that defines the attributes and behaviors of objects
 - c) A variable that stores multiple values
 - d) A mechanism for handling program errors
- 4) When establishing a connection to a MySQL database in Python using the connect() method, which set of parameters is typically required?

- a) User ID, password, server address, port number, and database name
 - b) User ID, password, and port number only
 - c) User ID, password, server address, and database name
 - d) User ID, password, and server address only
- 5) A Python package can be created by making a folder that contains a special file called `__init__.py`
- a) True
 - b) False
- 6) What is the primary use of the `map()` function in Python?
- a) To combine multiple lists into a single list
 - b) To arrange the elements of a sequence in ascending or descending order
 - c) To transform each item of an iterable by applying a specified function
 - d) To select only those elements that satisfy a particular condition
- 7) Python does not clearly separate public and private attributes?
- a) False
 - b) True
- 8) Which of the following methods is used to define a package in Python?
- a) by creating a directory with a special 'init.py' file
 - b) By maintaining a text file that lists module names
 - c) by using the 'package' keyword followed by the package name
 - d) All of these.
- 9) In Python, the "bytes" data type can be changed.
- a) True
 - b) False

- 10)** Python's tell() method indicates where the file pointer is currently located.
- a) False
 - b) True
- 11)** Python is a open source programming language.
- a) True
 - b) False
- 12)** The connect() function returns a cursor that can be used to perform database operations.
- a) False
 - b) True
- 13)** The "|" operator in regular expressions acts as an OR condition, matching either of the adjacent characters or patterns.
- a) True
 - b) False
- 14)** What is the purpose of the id() function in Python?
- a) It returns the memory address of an object.
 - b) It checks whether two objects are equal.
 - c) It returns the unique identity of an object during its lifetime.
 - d) It creates a unique identifier for a new object.
- 15)** Catching all exceptions with a bare except block is typically appropriate only while debugging.
- a) False
 - b) True

16) Which of the following tasks can be performed using the OS module in Python?

- a) Saving data to a file
- b) Reading information from a file
- c) Managing files and directories, such as renaming or deleting them
- d) Closing an open file

17) The `__init__()` method in Python is mainly used to compare two objects of class.

- a) True
- b) False

18) The character class `[a-zA-Z]` in a regular expression is used to match

- a) Only lowercase letters
- b) Only uppercase letters
- c) Any letter from A to Z or a to z
- d) Any printable character

19) In Python, which keyword is used to specify code that should run when an exception occurs?

- a) try
- b) catch
- c) finally
- d) except

20) The break statement is valid only within a loop and cannot be used outside a loop structure

- a) False
- b) True

SECTION B

- 1) Explain the concept of abstraction with implementation in Python?
OR
Explain the function arguments by value and by reference in Python?
- 2) Explain 'for loop' in Python with example?
- 3) How is pattern matching achieved in SQL and Python?
OR
Describe the CRUD operations in Python for database management?
- 4) What is the role of functions in Python programming?

SECTION C

- 1) Write a Python program that takes a string as input and removes all whitespace characters.
OR
Write a Python program that reverses the order of words in an input sentence.
- 2) Create a Python program that defines a database table called projects containing proj_id, proj_name, and start_date.
 - a) Write a query to add project details into the table.
 - b) Write a query to select projects whose start date falls in 2025.
 - c) Write a query to delete projects whose proj_name starts with 'P'



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