Feb 3 ,Python quiz

6 out of 6 correct

1. What is the purpose of a function in Python?

- [x] To break up a program into smaller, reusable pieces of code
- [ ] To store data in memory
- [ ] To perform a specific task or set of tasks
- [ ] To control the flow of a program

Explanation: Functions allow you to break up a program into smaller, more manageable pieces of code. Functions can be defined once and then called multiple times from different parts of a program, reducing the need for duplicate code and making it easier to maintain and modify your code.

2. What is the syntax for defining a function in Python?

- [ ] define function_name(arguments):
- [ ] function function_name(arguments):
- [x] def function_name(arguments)
- [ ] create function_name(arguments):

Explanation: The syntax for defining a function in Python is def function_name(arguments):. The def keyword is used to declare a function, followed by the function name and any arguments in parentheses. The code in the function is indented and is executed when the function is called.

3. What are parameter passing in Python?

- (●) The process of sending data to a function as input
- ( ) The process of storing data in memory
- ( ) The process of returning data from a function
- ( ) The process of manipulating data in a function

Explanation: Parameter passing refers to the process of sending data to a function as input. The function can then perform some operation on the data and return a result. The data can be passed as positional arguments, keyword arguments, or a combination of both.

4. What is the purpose of iterators in Python?

- ( ) To repeat a block of code a specified number of times
- (●) To allow for efficient access to elements in a sequence one at a time
- ( ) To store data in memory
- ( ) To manipulate data in a function

Explanation: Iterators in Python allow for efficient access to elements in a sequence one at a time. This allows for the creation of efficient and memory-saving loops that can process large amounts of data. Examples of sequences in Python include lists, tuples, and dictionaries.

5. What is a generator function in Python?

- (●) A function that generates a sequence of values
- ( ) A function that creates an iterator
- ( ) A function that performs a specific task or set of tasks
- ( ) A function that breaks up a program into smaller, reusable pieces of code

Explanation: A generator function in Python is a special type of function that generates a sequence of values. When called, it returns an iterator that can be used to iterate over the values in the sequence. Generator functions use the yield

statement to return values one at a time, allowing for efficient and memory-saving processing of large amounts of data.

6. What is the difference between a normal function and a generator function in Python?

- ○ Normal functions return a single value, while generator functions return an iterator
- ◉ Normal functions use the return statement, while generator functions use the yield statement
- ○ Normal functions can only be used once, while generator functions can be used multiple times
- ○ Normal functions can only return numbers, while generator functions can return any type of data

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