

1. **What is dynamic typing in Python?**  
Dynamic typing means the variable type is decided at runtime and can change without explicit declaration.
2. **What is the difference between mutable and immutable data types?**  
Mutable data types can be changed after creation, while immutable data types cannot be modified.
3. **What are local and global variables?**  
Local variables are defined inside a function and accessible only within it, whereas global variables are defined outside and accessible throughout the program.
4. **What is the purpose of the return statement in a function?**  
The return statement sends a value back to the caller and ends the function execution.
5. **What is list comprehension?**  
List comprehension is a concise way to create lists using a single line of code.
6. **Difference between break, continue, and pass**  
break exits the loop, continue skips the current iteration, and pass does nothing and acts as a placeholder.
7. **What is recursion? Give a simple example.**  
Recursion is a function calling itself to solve a problem.  
Example: `factorial(n) = n * factorial(n-1)`
8. **What is a lambda function?**  
A lambda function is an anonymous, single-expression function written using the lambda keyword.
9. **What is the difference between is and ==?**  
is checks object identity, while == checks value equality.
10. **What are docstrings and why are they important?**  
Docstrings are strings used to document functions, classes, or modules and help in understanding and maintaining code.