

1. **What is file handling in Python? Name different file modes.**

File handling is used to create, read, write, and modify files. Common file modes are r, w, a, x, r+, w+, and a+.

2. **What is the difference between read(), readline(), and readlines()?**

read() reads the entire file, readline() reads one line at a time, and readlines() reads all lines into a list.

3. **What is exception hierarchy in Python?**

Exception hierarchy is the structured classification of exceptions where all exceptions inherit from the base Exception class.

4. **Difference between try-except and try-except-finally**

try-except handles exceptions, while try-except-finally also executes the finally block whether an exception occurs or not.

5. **What is the purpose of the with statement?**

The with statement ensures proper resource management by automatically closing files or releasing resources.

6. **What are iterators in Python?**

Iterators are objects that allow traversal of elements one at a time using `__iter__()` and `__next__()`.

7. **What are generators and how are they different from functions?**

Generators produce values one at a time using yield, whereas functions return a value and terminate execution.

8. **What is \*args and \*\*kwargs?**

\*args allows passing a variable number of positional arguments, and \*\*kwargs allows passing variable keyword arguments.

9. **What is type casting? Give examples.**

Type casting is converting one data type into another.

Example: `int("10")`, `float(5)`

10. **What are built-in functions in Python? Name any five.**

Built-in functions are predefined functions in Python. Examples: `print()`, `len()`, `type()`, `range()`, `sum()`.