

Python Interview Questions & Answers

1. What is Python?

Answer: Python is a high-level, interpreted language.

2. Difference between list and tuple?

Answer: List is mutable, tuple is immutable.

3. What is a Python decorator?

Answer: Function that modifies another function.

4. Explain Python's GIL.

Answer: Global Interpreter Lock allows one thread at a time.

5. What are Python generators?

Answer: Functions that yield a sequence of values.

6. What is list comprehension?

Answer: Concise way to create lists.

7. What are Python modules?

Answer: Files containing Python code to import.

8. Explain lambda functions.

Answer: Anonymous single-expression functions.

9. Shallow copy vs deep copy?

Answer: Shallow copies references; deep copies objects.

10. What is `__init__`?

Answer: Constructor method for initializing objects.

11. Explain try/except.

Answer: For exception handling.

12. What is the 'with' statement?

Answer: Context manager for resources.

13. List vs set vs dict?

Answer: List: ordered, duplicates; Set: unique; Dict: key-value.

14. What is 'pass'?

Answer: Null operation placeholder.

15. What is docstring?

Answer: String literal documenting code.

16. What are iterators?

Answer: Objects to traverse elements.

17. Python 2 vs 3?

Answer: Python 3 uses Unicode by default.

18. What is Python's object reference?

Answer: Variables hold object references.

19. What is Python's import system?

Answer: Loads modules into the current namespace.

20. Explain Python's memory management.

Answer: Automatic garbage collection.