



DEBUG WITH SHUBHAM *ONE*

TECHNICAL AND VLOGS



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Cognizant GenC 2025

TOP-22 Python

Interview

Question

With

Answers

Q1. What is Python? Why is it used?

Answer:

Python is a high-level, interpreted programming language known for its simple syntax and readability.

Why Python?

- Easy to learn
- Less code
- Large libraries
- Used in web, data, automation

Q2. Difference between Python and Java

Python	Java
Interpreted	Compiled
Dynamic typing	Static typing
Simple syntax	Verbose syntax

One-liner:

Python is faster to write, Java is faster to execute.

Q3. What are lists and tuples?

Answer:

- List: Mutable (can change)
- Tuple: Immutable (cannot change)

```
lst = [1, 2, 3]
tup = (1, 2, 3)
```

Q4. What is mutable and immutable?

Answer:

- Mutable objects can be changed (list, dict)
- Immutable objects cannot be changed (int, string, tuple)

Q5. What is a dictionary?

Answer:

Dictionary stores data in key-value pairs.

```
d = {"name": "Rahul", "age": 22}
```

Q6. Difference between list and dictionary

List	Dictionary
Indexed	Key-based
Ordered	Unordered
Duplicate allowed	Keys unique

Q7. What is a function in Python?

Answer:

A function is a block of code that performs a specific task.

```
def add(a, b):  
    return a + b
```

Q8. What is lambda function?

Answer

A lambda function is a small anonymous function.

```
x = lambda a: a + 10
```

Interview tip: Don't go deep, just definition + example.

Q9. What is list comprehension?

Answer

List comprehension provides a shorter way to create lists.

```
squares = [x*x for x in range(5)]
```

Q10. What is slicing in Python?

```
s = "Python"  
print(s[1:4]) # yth
```

Used for strings & lists.

Q11. What is exception handling?

Answer:

Used to handle runtime errors using try-except.

```
try:  
    x = 10/0  
except:  
    print("Error occurred")
```

Q12. What is the difference between == and is?

Answer:

== compares values

is compares memory location

Q13. What is PEP 8?

Answer:

PEP 8 is the official style guide for Python code, a set of recommendations designed to improve the readability and consistency of Python programs

Q14. How do you reverse a string in Python?

```
s = "hello"  
print(s[::-1])
```

Q15. What are modules and packages?

Answer:

Module: Single Python file

Package: Collection of modules

Q16. What is file handling in Python?

```
f = open("data.txt", "r")
print(f.read())
f.close()
```

Q17. What is the difference between append() and extend()?

```
a = [1,2]
a.append([3,4]) # [1,2,[3,4]]
a.extend([3,4]) # [1,2,3,4]
```

Q18. What is range() function?

```
for i in range(5):
    print(i)
```

Q19. What is recursion?

Answer

A function calling itself.

```
def fact(n):
    return 1 if n==0 else n*fact(n-1)
```

Q20. Why is Python preferred for freshers?

Answer

Because it is easy to learn, readable, and widely used in industry.

Q21. Current Version ?

Answer: python 3.14.2 (Dec 2025)

Q22. Diff b/w Python2 and Python3 ?

Answer:

Feature	Python2	Python3
Print	print "hello"	print("hello")
Division	5/2=2	5/2=2.5