

## Task 1 (python)

1. what is python?

⇒ python is a high-level, general purpose programming language. Interpreted language

2. Is python an interpreted language? If yes, explain?

⇒ Yes python is interpreted language. Because it code is executed line-by-line at a time.

3. what is diff btw an interpreter and compiler.

⇒ An interpreter executes the line by line at a time.

Compiler executes entire program. If in case if the error occurs in the program it executes by compile next line.

4. what are the data and data types in python.

Data is collection of information. Data types in python. int, float, str, list, dictionary, tuple, set, bool.

5) what is list? Give ex.

List is a collection of data. It stores diff. types of elements. It is mutable. It denotes 'c'.

Ex:

Details = [ "Name", "age", "apple", 1, 2]  
print (Details)

6) what is Dictionary? Give Ex.

Dictionary is a collection of data in the form of key-value pair. It is mutable. It denotes 'd'.

Ex. Info =

{  
    "Name": "Sravani",  
    "age": 22,  
    "Education": "MCA"

print (Info)

7) what  
Tuple give ex.

Tuple is also a collection of items. It is immutable.

The data can't be modified. It denotes '()'.

Ex:- student = ("Sravani", 22, "MCA")

print (student)

8) what is  
mutable  
change.  
immutable  
modify

9) what  
in tuple  
in list

10) how  
food

food

food

11) Dif

ap

ins

12) D

it stores diff.  
i.e. it denotes 'c'.

8) what is diff btw mutable and immutable.  
mutable means in the program data can be changed.

immutable means the data will can't be modified.

9) what is diff btw tuple and list.

In tuple the data can't be modify.

In list the data can be modify.

10) How can we mutate (modify) a list?

food = ["Biryani", "chicken", "starters"]

food.append("cool drinks") # add

food[0] = "Ice cream". # modify.

11) Diff btw append() and insert(),

append is <sup>data</sup> add the end of the list.

insert is data add the specified index.

12) Diff btw pop() and pop(index). in python.

13) How can you mutate the dictionary in python. Give ex.

Details = {"name": "sravani"}

Details["age"] = 22 # add

Details["name"] = "srivani" # modify

14) write a dictionary for electronic products.

nested dictionary contains, Dictionary within Dictionary.

Ex:-

Electronics = {

"Headphones": {"price": 500, "brand": "Boat"},

"Smartwatch": {"price": 2000, "brand": "Beats"},

"Phone": {"price": 3000, "brand": "motorola"},

15) what is list of dictionary

electronic products = [

{ "name": "pen",

  "cost": 20,

}

{ "name": "book",

  "cost": 50;

}

16) what is  
oper

operations

17) what

1. Airthm

2. Assign

3. mem

4) logi

5. con

18) what

-them

arith

operat

a = 8

b =

print

print

print

prin

prin

prin

19) what

do

16) what is operator?

operator is a symbol: it performs some operations on operands.

17) what are the diff types of operators?

1. Arithmetic

2. Assignment

3. membership

4. Logical

5. Comparison

18) what are arithmetic operators and why we use them?

arithmetic operator is a mathematical operation.

operators: add, sub, mult, div.

a = 8

b = 2

print(a+b)

print(a-b)

print(a\*x)

print(a // b)

print(a \*\* b)

19) what are comparison operators and why do we use them.

Comparison operator is compare the two values

a = 6 <, >, ==, !=, <=, !=, !=

b = 3

print(a > b)

20) Explain logical operators?

and & not

and

a = 10

b = 20 # false

print (a > b and b > a)

or

print (a > b or b > a) # True.

not

print (not a > b and b > a)

# True.  
(True and False)