

## Class Assessment 1<sup>st</sup>

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16  
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Q. 1

list

tuple

1. It is represented by list() function.

1. It is represented by tuple() function.

2. It is represented in square bracket [ ].

3. It is represented in circle bracket ( ). i.e angular bracket.

3.

3. e.g. list = [1, 2, 3, 4, 5]

3. e.g. tuple = (1, 2, 3, 4, 5).

4. It is mutable i.e. it can change the values in list.

4. It is immutable, so it cannot change values in tuple.

5. It is better performing operator

5. It is not perform better operations.

Q.2.

→ Purpose of the set data type  
in python:

1. In python, set is an unordered collection of unique elements.
2. A primary purpose of using a set data type is to store distinct items and perform set operations like intersection.

(2)

Eg.

```
cars = {"Honda", "Thar",  
        "AITO"}
```

```
print(cars)
```

Output: {"Honda", "Thar", "AITO"}

Q.5

→ A doc string means documentation of string, it is a special kind of string used in python to document a module, class, function or method.

Use of Docstrings:

1. Documentation: They provide a convenient way of associating documentation with code.
2. Tools like Sphinx can automatically extract docstrings to generate API documentation.
3. The help() function in python uses docstrings to display info. about classes & functions.

G.6

- The '`//`' operator in python is used for floor division.
- It is slightly different from '`/`' operator i.e. division operator.

• e.g.  $a = 10$

$b = 2$

`print(a//b)`

$a = 10$

$b = 2$

$c = a//b$

`print(c)`

Output : 5

Q)

Output : 5

It is also known as integer division because it discards fractional part of the result.

G.3.

→ 1. Integer (`'int'`)

• It represents whole numbers without any decimal points.

e.g. 5, 10, 100

2. Float (`'float'`)

• It represents numbers with decimal points like 2.5, 20.25.

Eg: `import math`

`radius = 5.0`

`Area = math.pi * radius * radius`

`print("Area of circle:", Area)`

Output: Area of circle : 78.53

- Q.4.
- 1. A dictionary is an unordered collection of key-value pairs.
  - 2. Each key is a dictionary must be unique and immutable values in a dictionary can be of any data type and can be mutable or immutable
  - 3. It does not stores duplicate elements
  - 4. A dictionary include key and values with different data types.

(2)

e.g.

student = {

    "name": "Pallavi",  
    "age": 21,  
    "city": "Pune"

}

Output: name : Pallavi

    age : 21

    city : Pune

Q.11 IF statement

→ Eg:

```
age = int(input("Enter the age:"))
if age >= 18:
    print("Eligible for vote")
    print("Out from the body")
```

Output: Enter the age: 18  
Eligible for vote  
Out from the body

- IF statement is a type of control statement.
- (2) • It is used to show condition between many conditions.

Q. 9.

→ Operators in python:

- There are 8 types of operator
1. Arithmetic (+, -, \*, /, //, %, \*\*)
  2. Relation ( $>=$ ,  $>$ ,  $<$ ,  $<=$ ,  $=$ )
  3. membership
  4. Identity
  5. Logical (and, or)
  6. Bitwise
  7. Unary
  8. Ternary