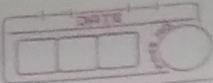


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Batch 2 :

DA 24 20

Date : 29-06-2024

1st Assessment Test

Q. 1) \Rightarrow

List

Tuple

i) List is mutable
the contents in
list can be
change

ii) Tuple is a
immutable data
type which
can not be
change

② ii) List is enclosed
within square
brackets

ii) Tuple is enclosed
within round
Parenthesis

• Syntax

• syntax

L = []

T = ()

iii) slower and
read intensive
task

iii) faster than
list due to
fixed size

iv) dynamic data
frequently change

iv) static data
constant and
unchangeable

v) Example :-

L = [1, 2, 3, 4 "String"]

v) Example

T = (1, 2, 3, 4)

- Q. 2) \Rightarrow i) sets are the unordered and mutable data type in Python.
ii) Each and every element in set is unique. Set do not include duplicate values.
iii) In Python sets are highly useful to efficiently remove duplication or the duplicate value from a collection like a list and to perform common math operations like
• union
• intersection
• difference
• Symmetric difference

for example:-

$$S_1 = \{1, 2, 3, 4, 5, 6\}$$

$$S_2 = \{5, 6, 7, 8, 9, 10\}$$

$$S_3 = S_1 \cup S_2$$

Print(S_3)

$$O/P \rightarrow \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$$

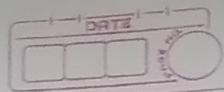
In the above example set union operation remove the duplicate value and combine two sets.

Q. 3) \Rightarrow

Integer :-

float

- i) Integer is numeric data type. ii) float represents the number with decimal point.



- ii) integer can be +ve or -ve . iii) float can also +ve or -ve but in decimal Point
- iii) It commonly used for Counting indexing and arithmetic operations
- iv) The key difference is that integer takes 4 bytes and stores the integer value
- iv) But In float we can store fractional value also

Example :-

int(a)

Example :-

float(a)

Example :-

a = 10

b = 5

Print(a/b)

O/P → 5.0

When we have to perform calculation like division then float would be appropriate to use, because of data should not be loss

Q. 4) \Rightarrow

- i) Dictionaries are the built in data type which include (key : value) pair.
- ii) Dictionary are different from list and tuple because it include keys with their values.
- iii) Dictionary is mutable data type which can be change

Structure of dictionary

(2)

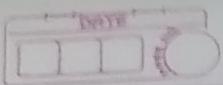
```
D1 = {"Phy": 88,  
       "chem": 90,  
       "math": 80}
```

This is the structure of dictionary which are enclosed within curly braces.

Q. 5) \Rightarrow

DOC string is documentation string it provide a convenient way of associating documentation with Python modules, function, methods and classes. It is specified in source code that is used like a comment to document a specific segment of code

(1)



Q. 6) \Rightarrow i) // operator is used for the floor division in Python.

for example :-

If we perform simple division
It will return the floating value

②

$$a = 10$$

$$b = 5$$

Print(a/b)

O/P \rightarrow 5.0

But If we perform floor division
it will return integer value.

$$a = 10$$

$$b = 5$$

Print(a//b)

O/P \rightarrow 5

Q. 7) \Rightarrow i) == operator is relational operator which is used to check equality of two variables.

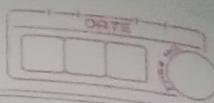
~~ii) is~~

~~example:-~~

~~Print(a==b)~~

~~O/P \rightarrow false~~

ii) used to check same operator
Point two variable point with same operator unlike == operator
which check if the value of two objects are equal



- q. 8) \Rightarrow i) $+=$ operator is also relational assignment operator.
ii) It is used to assign value with incrementation.

Example:-

①

$a = 10$
Print ($a += 1$)

O/P \rightarrow 11

In above example we increase the value of a with $+1$ and assign to a variable.

- q) \Rightarrow i) \in operator is the membership operator which is used to check the value is present in that series or not

Example:-

$L = [1, 2, 3, 4, 5]$

if 3 is in L

O/P \rightarrow True

o) \Rightarrow

?

Q. 11) \Rightarrow i) if statement is used to check the condition.

ii) If the condition will True it will perform some task.

Example :-

a = 10.

if a == 2 :

 Print(a)

else :

 Print("a is not equal to")

Q. 12) \Rightarrow

i) while loops :-

while loop check the condition first and then performs a task

Example :-

i = 0

while i <= 5 :

 Print(i)

 i += 1

ii) For LOOP :-

for loop is used for iterative sequence that is either in list tuple, dict set.

Example :-

L = [1, 2, 3, 4]

for i in L :

 Print(i)

- Q. 13 \Rightarrow i) Break statement is used
to break the loop.
ii) Break keyword break the
loop when it is used.

Example :-

(1) $i = 1$
while $i \leq 5$:
 Print(i)
 break

This will break the loop
loop

- Q. 14 \Rightarrow i) Continue statement is used
to skip the iterations.
ii) It will continue the loop
after the Continue keyword

Example :-

(2) $i = -1$
while $i \leq 5$:
 P3
 if $i == 3$:
 Print(i)
 continue