

## MCQ

1 What will be the output of the following code snippet?

```
def func(a, b): return b if a == 0 else  
func(b % a, a) print(func(30, 75))
```

- a) 10
- b) 20
- c) 15
- d) 0

Answer: 15

1. Initial value is (30,75)
2. The value is not equal to zero so it performs recursive function under (75%30,30), which is equal to (15,30).
3. Again argument is not equal to zero, so it will perform as (30%15, 15) which is equal to function(0,15).
4. Since a is equal to 0 so it will return the b value 15.

2 `numbers = (4, 7, 19, 2, 89, 45, 72, 22)` `sorted_numbers =`  
`sorted(numbers)` `even = lambda a: a % 2 == 0` `even_numbers =`  
`filter(even, sorted_numbers)` `print(type(even_numbers))`

- a) Int
- b) Filter
- c) List
- d) Tuple

Answer: Filter

1. `Number = (4,7,19,2,89,45,72,22)` defines tuples of a number.
2. `Sorted_number` defines new list number.
3. `Even = Lambda a: a%2==0` defines lambda return true for even number and false for odd.
4. `Even numbers = filter(even, sorted numbers)`-use the filter to sort even number and sorted number. `print( type(even numbers))`

Therefore output of code is Filter.

3) As what datatype are the \*args stored, when passed into a)

Tuple

b) List

c) Dictionary

d) none

Answer : Tuple

Args is used as functional definition used as additional argument into a Tuple.

4)      `set1 = {14, 3, 55} set2 = {82, 49, 62} set3={99,22,17} print(len(set1 + set2 + set3))`

a) 105

b) 270

c) 0

d) Error

Answer: Error

**It will show an error addition operator not used in a sets, instead of this we can use union operator.**

5)      What keyword is used in Python

to raise exceptions? a) raise

b) try

c) goto

d) except

Answer: raise.

Raise keyword is used in python to raise exceptions.

6) Which of the following modules need to be imported to handle date time computations in Python?

a) timdate

b) date

c) datetime time

Answer: datetime

In order to handle date and time computation in python.

7) What will be the output of the following code snippet?

```
print(4**3 + (7 + 5)**(1 + 1))
```

- a) 248
- b) 169
- c) 208
- d) 233

Answer: 208

$16 + 144 = 208$

8) Which of the following functions converts date to corresponding time in Python? a)

- strptime
- b) strftime
- c) both a) and b)
- d) None

Answer: Strftime

This function in python will convert date into string representing the date, consists of applied code.

9) The python tuple is \_\_\_\_\_ in nature. a)

- mutable
- b)immutable
- c)unchangeable
- d) none

Answer: Immutable.

In python immutable is data type, which means its value can't be change after the tuple is created.

10)

The \_\_\_\_ is a built-in function that returns a range object that consists series of integer numbers, which we can iterate using a for loop.

- A. range()
- B. set()
- C. dictionary {}
- D. None of the mentioned above

Answer: range()

Range function in python is built in function that returns a range object representing a sequence of number.

### Question 11

**Amongst which of the following is a function which does not have any name?**

- A. Del function
- B. Show function
- C. Lambda function
- D. None of the mentioned above

Answer: Lambda function

Lambda function in python is anonymous function that can any number of input value but can only have one expression function.

### Question 12

**The module Pickle is used to \_\_\_\_.**

- A. Serializing Python object structure
- B. De-serializing Python object structure
- C. Both A and B
- D. None of the mentioned above

Answer Both A and B

Module pickle is used to serializing and de- serializing python object structure, Serializing convert python into byte and de-serializing reverse that convert back from byte into original object.

### Question 13

**Amongst which of the following is / are the method of convert Python objects for writing data in a binary file?**

- A. set() method
- B. dump() method
- C. load() method
- D. None of the mentioned above

Answer: dump() method.

Dump() method is part of pickle module in python, this convert python into binary form and normally used for serializing when saving data structure to a file in a binary format.

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**Amongst which of the following is / are the method used to unpickling data from a binary file?**

- A. load()
- B. set() method
- C. dump() method
- D. None of the mentioned above

Answer: Load

Load is the method used to unpickling data from binary file.

15.

**A text file contains only textual information consisting of \_\_\_\_.**

- A. Alphabets
- B. Numbers
- C. Special symbols
- D. All of the mentioned above

Answer All of the mentioned above.

A Text file contains only textual information consisting of Alphabets, Numbers, Special symbols.

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Which Python code could replace the ellipsis (...) below to get the following output? (Select all that apply.)

```
captains = {
```

```
    "Enterprise": "Picard",
```

```
    "Voyager": "Janeway",
```

```
    "Defiant": "Sisko",
```

```
}
```

```
Enterprise Picard,
```

```
Voyager Janeway
```

```
Defiant Sisko
```

a) for ship, captain in captains.items():

```
print(ship, captain)
```

b) for ship in captains:

```
print(ship, captains[ship])
```

c) for ship in captains:

```
print(ship, captains)
```

d) both a and b

Answer: Both a and b

Both the function will provide specific output

```
Enterprise Picard,
```

```
Voyager Janeway
```

```
Defiant Sisko
```

17)

Which of the following lines of code will create an empty dictionary named `captains`?

a) `captains = {dict}`

b) `type(captains)`

c) `captains.dict()`

d) `captains = {}`

Answer: `captains={}`

This syntax in python denotes the empty dictionary.

18) Now you have your empty dictionary named `captains`. It's time to add some data!

Specifically, you want to add the key-value pairs `"Enterprise": "Picard"`, `"Voyager": "Janeway"`, and `"Defiant": "Sisko"`.

Which of the following code snippets will successfully add these key-value pairs to the existing `captains` dictionary?

a) `captains{"Enterprise" = "Picard"} captains{"Voyager" = "Janeway"}`

```
captains{"Defiant" = "Sisko"}
```

b) `captains["Enterprise"] = "Picard"` `captains["Voyager"] = "Janeway"`  
`captains["Defiant"] = "Sisko"`

c) `captains = {`  
`"Enterprise": "Picard",`  
`"Voyager": "Janeway",`  
`"Defiant": "Sisko",`  
`}`

d) None of the above

Answer: c) `captains = {`

`"Enterprise": "Picard",`  
`"Voyager": "Janeway",`  
`"Defiant": "Sisko",`

19 ) You're really building out the Federation Starfleet now! Here's what you have: `captains = {`

`"Enterprise": "Picard",`

`"Voyager": "Janeway",`

`"Defiant": "Sisko",`

`"Discovery": "unknown",`

`}` Now, say you want to display the ship and captain names contained in the dictionary, but you also want to provide some additional context. How could you do it?

a) `for item in captains.items():`

`print(f"The [ship] is captained by [captain].")`

b) `for ship, captain in captains.items():`

`print(f"The {ship} is captained by {captain}.")`

c) for captain, ship in captains.items():

```
print(f"The {ship} is captained by {captain}.")
```

d) All are correct

Answer: for ship, captain in captains.items():

```
print(f"The {ship} is captained by {captain}.")
```

**20 )**

You've created a dictionary, added data, checked for the existence of keys, and iterated over it with a for loop. Now you're ready to delete a key from this dictionary:

```
captains = {  
    "Enterprise": "Picard",  
    "Voyager": "Janeway",  
    "Defiant": "Sisko",  
    "Discovery": "unknown",  
}
```

What statement will remove the entry for the key "Discovery"?

- a) del captains
- b) captains.remove()
- c) del captains["Discovery"]
- d) captains["Discovery"].pop()

Answer del captains['Discover']