

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

The output is 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

The type of even numbers is Filter

3. As what datatype are the *args stored, when passed into

a) Tuple

b) List

c) Dictionary

d) none

When using *args in a function, the values passed into it are always stored as a tuple.

*args collects all positional arguments passed to a function 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
```

This will result in error, as + operator is not supported in sets.

5) What keyword is used in Python to raise exceptions? a)
raise
b) try
c) goto
d) except

raise keyword is used to raise exceptions.

6. Which of the following modules need to be imported to handle date time computations in Python?
a) timedata
b) date
c) datetime
d) time

The datetime module provides classes for manipulating dates and times.

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

The output is 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

strptime is used to parse a string representing a date and convert it into a datetime object.

9) The python tuple is _____ in nature.

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

Tuple is immutable in nature.

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

The range() function is built-in function that returns a range object.

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

Lambda function itself is a anonymous function, which does not have a name.

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

Pickle is used for serializing and deserializing (converting object to byte and viceversa).

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

The dump() method is used for serializing python objects and write them to a binary file.

14. 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

The load() method is used to unpickle data, which means it reads serialized data from a binary file and converts back into a python object.

15. A text file contains only textual information consisting of ____.

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

All of the mentioned above. A text file contains Alphabets, Numbers, Special symbols.

16. 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

Both a and b is the right option.

Option a) works because the items() method returns pairs of keys and values.

Option b) works because iterating the dictionary gives corresponding values to the keys.

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 = {}`

captains = {} is the right option . It will create empty dictionary named captains.

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

b) is the right option, as this code snippet will add key value pairs to the empty dictionary.

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

option b) is correct because it uses `captains.items()` to retrieve the key-value pairs from the dictionary and formats them using an f-string to insert the values into the message correctly. It uses the right variables (ship and captain) in the correct order.

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()

The del statement is used to delete a specific key-value pair from a dictionary.