

## Assignment 1

Q1. 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

**Ans1. C)15**

```
Q2. 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

**Ans2. b)Filter**

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

- a) Tuple
- b) List
- c) Dictionary
- d) none

**Ans3. 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

**Ans4. d) Error**

5) What keyword is used in Python to raise exceptions?

- a) raise
- b) try
- c) goto
- d) except

**Ans5. a) Raise**

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

- a) time
- b) date
- c) datetime
- d) time

**Ans6. c) datetime**

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

**Ans7. c) 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

**Ans8. a)strptime**

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

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

**Ans9. b) immutable**

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

**Ans10. a) range()**

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

**Ans11. c) Lambda 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

**Ans12. c) Both A & B**

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

**Ans13. b) dump () method**

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

**Ans14. a) load**

15.

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

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

**Ans15. d) All of the mentioned above**

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
```

**Ans16. a) for ship, captain in captains.items():**

**print(ship, captain)**

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 = {}

**Ans17. d) 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

**Ans18. a) captains{"Enterprise" = "Picard"}**

**captains{"Voyager" = "Janeway"}**

**captains{"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
```

**Ans19. b) 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()

**Ans20. C) del captains["Discovery"]**