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))
```

sol :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))
```

sol: Filter

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

Sol: Tuple

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

sol: Error

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

sol: raise

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

sol: datetime

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

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

sol: 208

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

sol: strptime

9) The python tuple is _____ in nature.

sol: unchangeable

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.

sol: range()

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

Sol: Lambda function

12) The module Pickle is used to ___.

Sol: Both A and B (**serializing and de-serializing a Python object structure)**

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

Sol: dump() method

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

Sol: load()

15) A text file contains only textual information consisting of ___.

Sol: . Alphabets , Numbers & Special symbols
(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

Sol: a) for ship, captain in captains.items():
print(ship, captain)
b) for ship in captains:
print(ship, captains[ship])

both a and b

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

Sol: 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?

Sol: 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?

Sol: 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"?

Sol: del captains["Discovery"]