INTERNSHIP 1 (Date: 17/10/2023)

1.

Ans: 15

2.

Ans: Filter

3.

Ans: Dictionary Data Type is used to store values in key value format.

4.

Ans: **TypeError**

The error is in line 4

```
print(len(set1 + set2 + set3))
```

Error is: unsupported operand type(s) for +: 'set' and 'set'

We cannot use the `+` operator to concatenate sets in Python. We can either use `union` or the `|` operator to achieve the same result.

5.

Ans: In Python, the raise keyword is used to raise exceptions.

6.

Ans: In Python, we need to import the “datetime” module in order to perform date and time calculations.

The Python standard library includes the “datetime” module, which offers classes and functions for working with dates and times.

7.

Ans: 208

8.

Ans: The Python function “strptime()” converts a date to its matching time.

9.

Ans: The python tuple is **immutable** in nature.

10.

Ans: range()

11.

Ans. Python Lambda Functions are anonymous functions, which implies they lack a name. As we already know, the def keyword is used in Python to define a standard function. Similar to this, the lambda keyword in Python is used to define an anonymous function.

12.

Ans: Python pickle module is used for **serializing and de-serializing** a Python object structure. Any object in Python can be pickled so that it can be saved on disk. What Pickle does is it “serializes” the object first before writing it to a file. Pickling is a way to convert a Python object (list, dictionary, etc.) into a character stream. The idea is that this character stream contains all the information necessary to reconstruct the object in another Python script.

13.

Ans: The methods used for converting Python objects for writing data in a binary file are:

B. dump() method

C. load() method.

Option A (set() method) is not used for writing data to a binary file.

14.

Ans. load(), is used with the pickle module to read and deserialize data from a binary file created with the dump() method.

15.

Ans:
A text file can contain all of the mentioned options: Alphabets, Numbers, and Special symbols. So, the correct answer is:

D. All of the mentioned above

16.

Ans: The Python code that can produce the desired output is option D, which combines both a and b:

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

17.

Ans: Both options A and B correctly iterate through the captains dictionary and print both the ship and captain, producing the desired output.

18.

Ans: The correct code snippet to successfully add the key-value pairs to the existing captains dictionary is option B:

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

19.

Ans: The correct way to display the ship and captain names contained in the captains dictionary with the provided context is option B:

```
for ship, captain in captains.items():
    print(f"The {ship} is captained by {captain}.")
```

20.

Ans: To remove the entry for the key "Discovery" from the captains dictionary, we are going to use option del captains["Discovery"]

Del captains deletes the entire dictionary. Captains.remove () is not a valid method. captains["Discovery"].pop() is also invalid as the dictionary does not have any pop() method like list.