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**Assignment No.1 (18 Dec 2023)**  
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**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: c) 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: b) Filter

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

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

Answer: 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: d) Error

**5. What keyword is used in Python to raise exceptions?**

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

Answer: 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

Answer: 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

Answer: 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

Answer: b) strftime

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

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

Answer: 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

Answer: A) range()

**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: d) None of the mentioned above

**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: C) Both A and B

**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: 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

Answer: 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

Answer: D) All 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

Answer: d) both a and b

**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: 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

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: 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()

Answer: c) del captains["Discovery"]