

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

ANS:- **C)15**



Figure 1

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) Tupl

ANS:- **C) List**

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

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

ANS:- A) Tuple

Explanation- *args is used in a function definition it allow the function to accept in arbitrary number of positional arguments these arguments are paked into a tuple

4) set1 = {14, 3, 55}

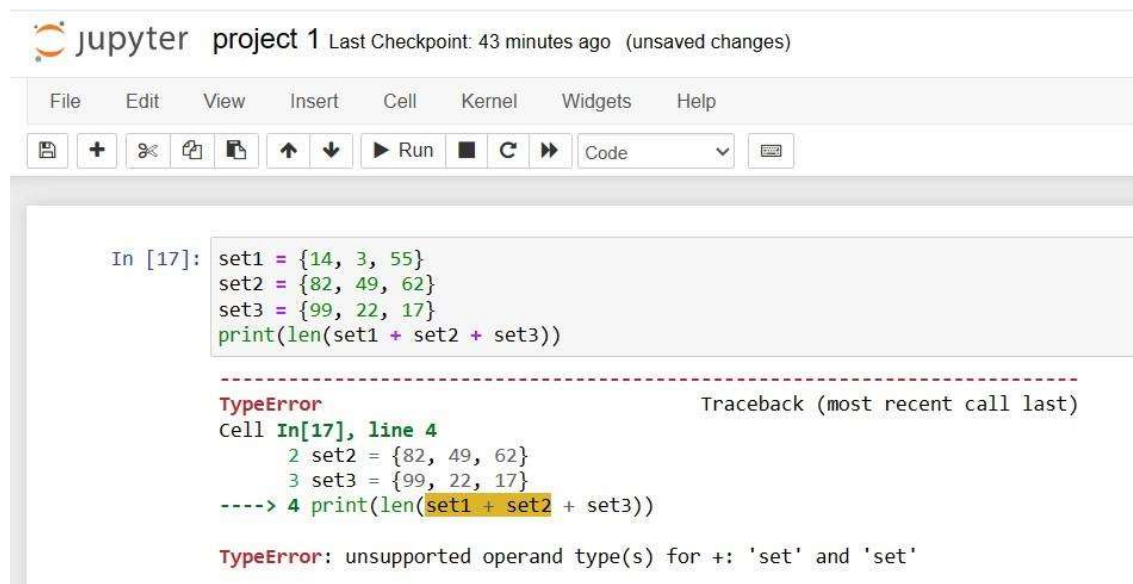
set2 = {82, 49, 62}

set3={99,22,17}

print(len(set1 + set2 + set3))

- a) 105
- b) 270
- c) 0 .
- d) Error

ANS:- D) error



The screenshot shows a Jupyter Notebook interface. At the top, it says "jupyter project 1" and "Last Checkpoint: 43 minutes ago (unsaved changes)". Below this is a menu bar with "File", "Edit", "View", "Insert", "Cell", "Kernel", "Widgets", and "Help". Under the menu bar is a toolbar with icons for saving, adding cells, undo, redo, copy, paste, and running code. The main area contains a code cell with the following code:

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

Below the code cell, a red error message is displayed:

```
-----
TypeError                                Traceback (most recent call last)
Cell In[17], line 4
      2 set2 = {82, 49, 62}
      3 set3 = {99, 22, 17}
----> 4 print(len(set1 + set2 + set3))

TypeError: unsupported operand type(s) for +: 'set' and 'set'
```

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

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

ANS:- a) **Raise**

EXPLANATION:- in the 'raise' keyword is used to raise exceptions explicitly.

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

- a) timedata
- b) date
- c) datetime
- d) tim

ANS:- C) **datetime**

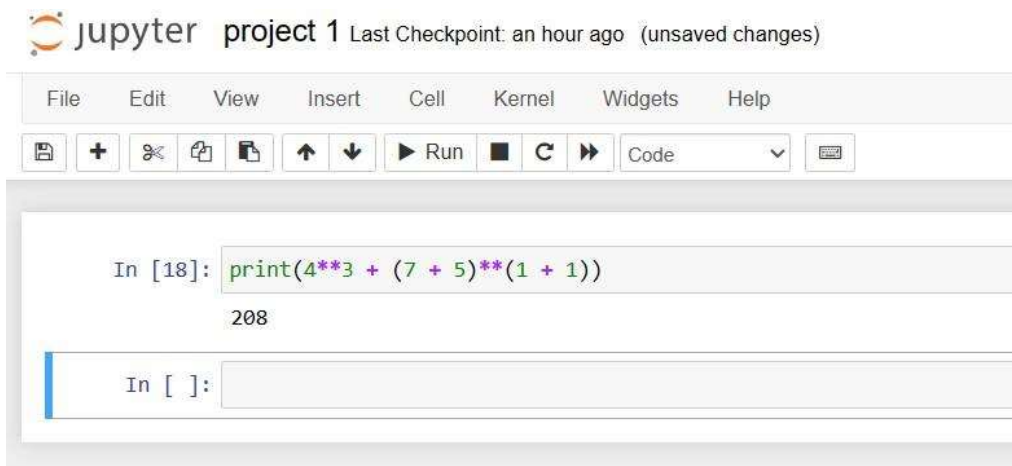
EXPLANATION:- The 'datetime' module in python provides classes for manipulating dates and times it is used to handle date-time computations.

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

ANS:- 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

ANS:- **B) strftime**

Explanation:- The 'strftime' () function in python is used to convert a date and time to a formatted strings.

9) The python tuple is _____ in nature.

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

ANS:- **B) Immutable**

Explanation:- is a built In function that returns a range object that consists of a series of interger number which we can iterate using a for loop.

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

ANS:- **A) range()**

Exoalnation:- The ' range()' ' function is python returns in immutable sequence of numbers in the specified 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

ANS:-c) **Lambda function**

Explanation:- Lambda functions are anonymous functions in python that don't have a name .

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

ANS:- C) **both A and B**

Explanation:- serializing python object structure and De-serializing python object structure.

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

Ans:- **B) dump() method.**

Explanation:- The dump() method in the 'pickle' module is used to write python objects into 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

ANS:- **A) load()**

Explanation:- The load() method in the 'pickle' module is used to unpickle data from a binary file.

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

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

ANS:- **D) all of the mentioned above**

Explanation:- A text file can contain a combination of making is a versatile format for storing textual information.

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

ANS:-**D) both A and B**

Explanation:- Both option (a) and (b) will produce the correct output.

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 = {}

ANS:- **D) Captains = {}**

Explanation:- captains an 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

e) **Ans:- B) captains["Enterprise"] = "Picard"**

captains["Voyager"] = "Janeway"

captains["Defiant"] = "Sisko"

Explanation:- option B correctly adds the specified key-value pairs to the ' captains ' 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

ANS:- B)for ship, captain in captains.items():

print(f"The {ship} is captained by {captain}.")

Explanation:- option (B) uses the item () method to iterate through the dictionary and print the ship and captain names with additional context.

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()`

ANS:- C) `del captains [" Discovery"]`.

Explanation:- `del captains ["Discovery"]` uses the `del` keyword to remove the key "discovery" along with its associated value from the 'captains' dictionary.