Variable_I/O_DataTypes

Assignment

1. Which of the following identifier names are invalid and why?

    a. Serial_no.

    b. 1st_Room

    c. Hundred$

    d. Total_Marks

    e. total-Marks

     f. Total Marks

    g. True

    h. _Percentag

2. Write the corresponding Python assignment statements:

    a. Assign 10 to variable length and 20 to variable breadth.

    b. Assign the average of values of variables length and breadth to a variable sum.

    c. Assign a list containing strings 'Paper', 'Gel Pen', and 'Eraser' to a variable stationery.

    d. Assign the strings 'Mohandas', 'Karamchand', and 'Gandhi' to variables first, middle and last.

    e. Assign the concatenated value of string variables first, middle, and last to variable fullname.

3. What is the difference between static and dynamic variables in Python?

 4.
name = ["Mohan", "dash", "karam", "chandra","gandhi","Bapu"]
do the following operations in this list;

    a. add an element "freedom_fighter" in this list at the 0th index.

    b. find the output of the following ,and explain how?

```python
name = ["freedomFighter","Bapuji","MOhan" "dash", "karam",
"chandra","gandhi"]
length1=len((name[-len(name)+1:-1:2]))
length2=len((name[-len(name)+1:-1]))
print(length1+length2)
```

    c. add two more elements in the name ["NetaJi","Bose"] at the end of the list.

    d. what will be the value of temp:

name = ["Bapuji", "dash", "karam", "chandra","gandi","Mohan"]
temp=name[-1]
name[-1]=name[0]
name[0]=temp
print(name)

5. Find the output of the following.

```
animal = ['Human','cat','mat','cat','rat','Human', 'Lion']
print(animal.count('Human'))
print(animal.index('rat'))
print(len(animal))
```

6. tuple1=(10,20,"Apple",3.4,'a',["master","ji"],("sita","geeta",22),[{"roll_no":1},{"name":"Navneet"}])

    a. print(len(tuple1))

    b. print(tuple1[-1][-1]["name"])

    c. c)fetch the value of roll_no from this tuple.

    d. d)print(tuple1[-3][1])

    e. fetch the element "22" from this tuple.

7. What are the three main types of number data types in Python?

8. Give examples of each of the numeric data types mentioned.

9. How is the boolean data type related to the integer data type in Python?

10. What is the special significance of the boolean values True and False?

11. Explain the concept of sequence data types in Python.

12. What is the primary difference between a list and a tuple in Python?

13. What is a set in Python, and what distinguishes it from a list?

14. Explain the purpose of using the None data type in Python.

15. How is a dictionary different from other data types in Python?

16. Describe the syntax for creating a dictionary in Python.

17. What is the significance of keys and values in a dictionary?

18. Explain the purpose of "pop","popitem","clear()" in a dictionary with suitable example.

19. Difference between discord and remove .

20. what do you mean by FrozenSet? Explain it with suitable examples.

21. Differentiate between mutable and immutable data types in Python and give examples of mutable and immutable data types.