1. B
2. C
3. A
4. A
5. C
6. C
7. B
8.
9. A,C,D
10. B,D

11. Differentiate between a list, tuple, set and dictionary.

List	Tuple	Set	Dictionary
A list is a collection of ordered data.	A tuple is an ordered collection of data.	A set is an unordered collection.	A dictionary is an unordered collection of data that stores data in key-value pairs.
Lists are mutable.	Tuples are immutable.	Sets are mutable and have no duplicate elements.	Dictionaries are mutable and keys do not allow duplicates.
Lists are declared with square braces.	Tuples are enclosed within parenthesis.	Sets are represented in curly brackets.	Dictionaries are enclosed in curly brackets in the form of key-value pairs.
The append() method adds a single item at the end of the list without modifying the original list.	An element cannot be added to the tuple as it is immutable.	The set add() method adds a given element to a set.	The update() method updates the dictionary with the specified key-value pairs
The pop() method removes the item at the given index from the list and returns it.	Tuples are immutable.	The pop() method removes a random item from the set.	The pop() method removes the specified item from the dictionary.
The sort() method sorts the elements of a given list in a	Though tuples are ordered, the elements	Elements in the set cannot be sorted as they are unordered.	sorted() method is used to sort the keys in the

specific ascending or descending order.	cannot be sorted.		dictionary by default.
index() searches for a given element from the start of the list and returns the lowest index where the element appears.	Searches the tuple for a specified value and returns the position of where it was found.	The index of a particular element is not retrieved as they are unordered.	The get() method returns the value of the item with the specified key.
The count() method returns the number of times the specified element appears in the list.	The count() method returns the number of times a specified value occurs in a tuple.	There are no count() methods in sets as they do not allow any duplicates.	The count() method is not defined in the dictionary.
The reverse() method reverses the elements of the list.	The reverse() method is not defined in tuples, as they are unchangeable	The sets are unordered, which refrains from applying the reverse() method	The elements cannot be reversed, as the items in the dictionary are in the form of key-value pairs

12. Are strings mutable in python? Suppose you have a string "I+Love+Python", write a small code to replace '+' with space in python.

Yes, Strings are mutable in python.
X="I+Love+Python"
X=X.replace('+',' ')
Print(X)

```
X="I+Love+Python"
X=X.replace('+',' ')
print(X)
```

```
I Love Python
```

13. What does the function ord() do in python? Explain with an example. Also, write down the function for getting the data type of a variable in python.

The unicode code of a given character is represented numerically via the ord() function. In other word The ord() function returns the number representing the unicode code of a specified character.

Example of ord:-

```
ord('A')
```

```
65
```

```
ord('B')
```

```
66
```

```
ord('%')
```

```
37
```

```
ord('@')
```

```
64
```

Function for check data type of variables

```
a='ABC'
A=13
b=13.31

def checkdtype(n):
    print(f'The data type of {n} is {type(n)}')
```

```
checkdtype(a)
```

```
The data type of ABC is <class 'str'>
```

```
checkdtype(A)
```

```
The data type of 13 is <class 'int'>
```

```
checkdtype(b)
```

```
The data type of 13.31 is <class 'float'>
```