

02 Feb Assignment Data Science Masters

Q.1 Ans –

Tuple Characteristics –

- Tuples are ordered, indexed collections of data.
- Tuples can store duplicate values.
- Once data is assigned to a tuple, the values cannot be changed.
- Tuples allow you to store several data items in one variable.

Q.2 Ans –

Methods in Tuples – count(), index()

Main reason why there are 2 methods only in Tuples because Tuples are immutable.

Q.3 Ans –

sets

```
l = [1, 1, 1, 2, 1, 3, 1, 4, 2, 1, 2, 2, 2, 3, 2, 4, 3, 1, 3, 2, 3, 3, 3, 4, 4, 1, 4, 2, 4, 3, 4, 4]
```

```
print(set(l))
```

Q.4 Ans –

update() adds all missing elements to the set on which it is called whereas set.

union() creates a new set

```
s.update({4})
```

```
A = {1,2,3,4,5}
```

```
B = {4,5,6,7,8,9}
```

```
S = A.union(B)
```

Q.5 Ans –

Dictionary is an unordered collection that contains key: value pairs separated by commas inside curly brackets. Dictionaries are optimized to retrieve values when the key is known.

```
names= {1:"One", 2: "Two", 3:"Three"}
```

Q.6 Ans –

Yes we can create a nested dictionary.

```
D = dict(emp1 = {'name': 'Bob', 'job': 'Mgr'},
```

```
        emp2 = {'name': 'Kim', 'job': 'Dev'},
```

```
        emp3 = {'name': 'Sam', 'job': 'Dev'})
```

Q.7 Ans –

```
my_dict = { }
```

```
my_dict.setdefault("topics", ['Python', 'Machine Learning', 'Deep Learning'])
```

```
print(my_dict)
```

Q.8 Ans –

keys, values and items.

Q.9 Ans –

```
print(dict1.keys())
```

```
dict_keys(['Sport', 'Teams'])
```

```
print(dict1.values())
```

```
dict_values(['Cricket', ['India', 'Australia', 'England', 'South Africa', 'Sri Lanka', 'New Zealand']])
```

```
print(dict1.items())
```

```
dict_items([('Sport', 'Cricket'), ('Teams', ['India', 'Australia', 'England', 'South Africa', 'Sri Lanka', 'New Zealand'])])
```