

PYTHON IN 10 VIDEOS

Assignment - 3
(Part B)

1. Which is true?

- a. Tuples support item assignment after creation
- b. Tuples can be used as keys in dictionaries
- c. Tuples can be sorted using sort() method
- d. Tuples are resizable

2. What is the output?

```
my_tuple = (1, 2, 3)  
print(len(my_tuple))
```

- a. 0
- b. 1
- c. 2
- d. 3

3. What is a tuple?

- a. Mutable data structure
- b. Sequence of immutable python objects
- c. Key-value pair
- d. Collection on unordered elements

4. How to create empty tuple?

- a. `Empty_tuple = ()`
- b. `Empty_tuple = []`
- c. `Empty_tuple = {}`
- d. `Empty_tuple =(None)`

5. Output: `set1.intersection(set2)`

`set1 = {1, 2, 3}`

`set2 = {3, 4, 5}`

- a. `{1,2,3,4,5}`
- b. `{1,2,3}`
- c. `{3}`
- d. `{}`

6. What does union operation on sets returns?

- a. New set with common elements from both sets
- b. New set with unique elements from both sets
- c. New set containing elements only from first set.
- d. New set containing elements only from second set.

7. Which is true?

- a. Sets contain duplicates
- b. Sets are ordered collection
- c. Sets contain mutable elements
- d. Sets are iterable but not indexable

8. What does pop() in sets do?

- a. Pops specific element
- b. Pops last element
- c. Removes random element
- d. Clears set

9. Method to add element to set?

- a. `insert()`
- b. `add()`
- c. `append()`
- d. `update()`

10. Can dictionaries have duplicate values?

- a. Yes
- b. No
- c. Maybe

11. Method to get all keys in dictionary?

- a. `keys()`
- b. `get_keys()`
- c. `list()`
- d. `items()`

12. What does items() method return?

- a. List of all keys
- b. List of all values
- c. List of tuples containing key-value pairs
- d. List of dictionaries

13. Which is not a valid key type for a dictionary?

- a. String
- b. Integer
- c. List
- d. Tuple

14. How to remove specific key-val pair from dictionary?

- a. `remove()`
- b. `delete()`
- c. `popitem()`
- d. `discard()`

15. How to access value of 'age' in dictionary?

```
{'name': 'John', 'age': 30}
```

- a. `Dict['age']`
- b. `dict.get('age')`
- c. `dict.value('age')`
- d. Both a and b

16. How to create empty slide?

- a. `Empty_dict = ()`
- b. `Empty_dict = []`
- c. `Empty_dict = {}`
- d. `Empty_dict = None`

17. What does clear() method do on dictionaries?

- a. Removes all items from dictionaries
- b. Returns a copy of dictionary
- c. Clears keys but keeps values
- d. Clears values keeps keys

18. Create a tuple with duplicate elements.
Convert it to a set to remove duplicates and print the resulting set.

19. Create a tuple with duplicate elements and count the occurrences of an element. Find the index of the first occurrence of an element in the tuple.

20. Write functions that take a tuple and return the minimum, maximum, and sum of the elements. Print the results for a sample tuple.

21. Create a frozenset with the first 5 positive integers.
Print the frozenset.

22. Create a set containing tuples, where each tuple contains two elements. Print the set.

23. Create a set with duplicate elements and remove the duplicates using set methods. Print the modified set.

24. Create two dictionaries: one with keys as the first 5 positive integers and values as their squares, and another with keys as the next 5 positive integers and values as their squares. Merge these dictionaries into a single dictionary and print it.

25. Write a function that takes a string and returns a dictionary with the count of each character in the string. Print the dictionary.

26. Create a dictionary representing a book with keys 'title', 'author', 'year', and 'genre'. Convert the dictionary to a JSON string and print it.

27. Create a dictionary with the first 10 positive integers as keys and their squares as values. Create a new dictionary containing only the key-value pairs where the key is even. Print the new dictionary.