



Ministry of Higher Education

Kabul University

Faculty of Information Technology and Telecommunications

Department of Information Science and Engineering

The seven(7) chapter home work of python

Present : by Muhammad Hadi Azizi

1. Which of the following statements create a dictionary?

- a. `dic = {}`
- b. `dic = {"charles":40, "peterson":45}`
- c. `dic = {40: "charles", 45: "peterson"}`
- d. All of the above

2. Read the code shown below carefully and pick out the keys.

```
dic = {"game":40, "thrones":45}
```

- a. "game", 40, 45, and "thrones"
- b. "game" and "thrones"
- c. 40 and 45
- d. `dic = (40: "game", 45: "thrones")`

3. Gauge the output of the following code snippet.

```
fruit = {"apple":"red", "guava":"green"}  
"apple" in fruit
```

- a. True
- b. False
- c. None
- d. Error

4. Consider `phone_book = {"Kalpana":7766554433, "Steffi":4499551100}`. To delete the key "Kalpana" the code used is

- a. `phone_book.delete("Kalpana":7766554433)`
- b. `phone_book.delete("Kalpana")`
- c. `del phone_book["Kalpana"]`
- d. `del phone_book("Kalpana":7766554433)`

5. Assume `d = {"Guido":"Python", "Dennis":"C"}`. To obtain the number of entries in dictionary the statement used is

- a. `d.size()`
- b. `len(d)`
- c. `size(d)`
- d. `d.len()`

6. Consider `stock_prices = {"IBM":220, "FB":800}`. What happens when you try to retrieve a value using the statement `stock_prices["IBM"]`?

- a. Since "IBM" is not a value in the set, Python raises a `KeyError` exception.
- b. It executes fine and no exception is raised
- c. Since "IBM" is not a key in the set, Python raises a `KeyError` exception.
- d. Since "IBM" is not a key in the set, Python raises a syntax error.

7. Which of the following statement is false about the dictionary?

- a. The values of a dictionary can be accessed using keys.
- b. The keys of a dictionary can be accessed using values.
- c. Dictionaries are not ordered.
- d. Dictionaries are mutable.

8. What is the output of the following code?

```
stuff = {"book":"Java", "price":45}  
stuff.get("book")
```

- a. 45
- b. True

c. Java

d. price

9. Predict the output of the following code.

```
fish = {"g": "Goldfish", "s": "Shark"}
```

```
fish.pop(s)
```

```
print(fish)
```

a. {'g': 'Goldfish', 's': 'Shark'}

b. {'s': 'Shark'}

c. {'g': 'Goldfish'}

d. Error

10. The method that returns the value for the key present in the dictionary and if the key is not present then it inserts the key with default value into the.

dictionary.

a. update()

b. fromkeys()

c. setdefault()

d. get()

11. Guess the output of the following code.

```
grades = {90: "S", 80: "A"}
```

```
del grades
```

a. Method *del* doesn't exist for the dictionary.

b. *del* deletes the values in the dictionary.

c. *del* deletes the entire dictionary.

d. *del* deletes the keys in the dictionary.

12. Assume *dic* is a dictionary with some *key:value* pairs. What does *dic.popitem()* do?

a. Removes an arbitrary *key:value* pair

b. Removes all the *key:value* pairs

c. Removes the *key:value* pair for the key given as an argument

d. Invalid method

13. What will be the output of the following code snippet?

```
numbers = {}
```

```
letters = {}
```

```
comb = {}
```

```
numbers[1] = 56
```

```
numbers[3] = 7
```

```
letters[4] = "B"
```

```
comb["Numbers"] = numbers
```

```
comb["Letters"] = letters
```

```
print(comb)
```

a. Nested dictionary cannot occur

b. 'Numbers': {1: 56, 3: 7}

c. {'Numbers': {1: 56}, 'Letters': {4: 'B'}}

d. {'Numbers': {1: 56, 3: 7}, 'Letters': {4: 'B'}}

14. Gauge the output of the following code.

```
demo = {1: 'A', 2: 'B', 3: 'C'}
```

```
del demo[1]
```

```
demo[1] = 'D'
```

```
del demo[2]
print(len(demo))
```

- a. 0
- b. 2**
- c. Error
- d. 1

15. Assuming *b* to be a dictionary, what does *any(b)* do?

- a. Returns True if any key of the dictionary is True.**
- b. Returns False if dictionary is empty.
- c. Returns True if all keys of the dictionary are True.
- d. Method *any()* doesn't exist for dictionary.

16. Infer the output of the following code.

```
count = {}
count[(1, 2, 4)] = 5
count[(4, 2, 1)] = 7
count[(1, 2)] = 6
count[(4, 2, 1)] = 2
tot = 0

for i in count:
    tot = tot + count[i]
print(len(count)+tot)
```

- a. 25
- b. 17
- c. 16**
- d. Error

17. The _____ function returns Boolean True value if all the keys in the dictionary are True else returns False.

- a. all()**
- b. sorted()
- c. len()
- d. any()

18. Predict the output of the following code.

```
>>> dic = {}
>>> dic.fromkeys([1,2,3], "check")
```

- a. Syntax error
- b. {1: 'check', 2: 'check', 3: 'check'}**
- c. 'check'
- d. {1:None, 2:None, 3:None}

19. For dictionary *d* = { "plum ":0.66, "pears ":1.25,"oranges ":0.49}, which of the following statement correctly updates the price of oranges to 0.52?

- a. *d*[2] = 0.52
- b. *d*[0.49] = 0.52
- c. *d*["oranges "] = 0.52**
- d. *d*["plum "] = 0.52

20. The syntax that is used to modify or add a new key: value pair to a dictionary is:

- a. dictionary_name[key] = value**
- b. dictionary_name[value] = key

- c. `dictionary_name(key) = value`
- d. `dictionary_name{key} = value`

21. Which of the following cannot be used as a key in Python dictionaries?

- a. Strings
- b. Lists
- c. Tuples
- d. Numerical values

22. Guess the output of the following code.

```
week = {1:"sunday", 2:"monday", 3:"tuesday"}  
for i,j in week.items():  
    print(i, j)
```

- a. 1 sunday 2 monday 3 Tuesday
- b. 1 2 3

- c. sunday monday tuesday
- d. 1:"sunday" 2:"monday" 3:"tuesday"

23. Predict the output of the following code.

```
a = {1: "A", 2: "B", 3: "C"}  
b = {4: "D", 5: "E"}  
a.update(b)  
print(a)
```

- a. {1: 'A', 2: 'B', 3: 'C'}
- b. Error
- c. {4: 'D', 5: 'E'}
- d. {1: 'A', 2: 'B', 3: 'C', 4: 'D', 5: 'E'}

Review Questions

1. Define a dictionary. What are the advantages of using dictionary over lists.
2. Briefly explain how a dictionary is created with an example.
3. Write short notes on the following methods.
 - a. `keys()`
 - b. `values()`
 - c. `get(key)`
 - d. `clear()`
4. Explain nested dictionaries with an example.
5. Write a function that prompts the user for the average temperature for each day of the week and returns a dictionary containing the entered information.
6. Write a Python program to input information about a few employees as given below:
 - a. Name
 - b. Employee Id
 - c. Salary

The program should output the employee ID and salary of a specified employee, given his name.

7. Write a function named *addfruit*, which is passed with a set of fruit names and their prices and returns a dictionary containing the entered information and raises a *ValueError* exception if the fruit is already present.
8. Write a function to add the air quality index as the value and the date as the key; create the dictionary for the entered information.
9. Create a dictionary that contains usernames as the key and passwords as the associated values. Make up the data for five dictionary entries and demonstrate the use of *clear* and *fromkeys()* methods.

10. Write Pythonic code to create a dictionary that accepts a country name as a key and its capital city as the value. Display the details in sorted order.
11. Write a program that has the dictionary of your friends' names as keys and phone numbers as its values. Print the dictionary in a sorted order. Prompt the user to the dictionary. enter the name and check if it is present in the dictionary. If the name is not present, then enter the details in the dictionary.
12. Write a program to create a dictionary containing the author name as the keys and ISBN number as the value. Make up the data for five dictionary entries and demonstrate the use of *clear()* and *fromkeys()* methods