Dictionary MCQS

1. What is a dictionary in Python?

- A. A mutable, unordered collection of items.
- B. A mutable, ordered collection of items.
- C. An immutable, unordered collection of items.
- D. An immutable, ordered collection of items.

2. What will be the output of the following code, which processes an inventory system?

```
inventory = {'laptop': 50, 'mouse': 200, 'keyboard': 150}
print(inventory['laptop'])
A. laptop
B. 50
C. 200
D. KeyError
```

3. How can a dictionary be used to store API request headers in a web development project?

```
headers = {
    'Content-Type': 'application/json',
    'Authorization': 'Bearer abc123'
}

A. As a tuple
B. As an array
C. As key-value pairs
D. As a JSON object
```

4. Which of the following dictionary methods returns all the keys in the dictionary?

```
A. items()
B. keys()
C. values()
D. pop()
```

5. What will be the output of the following code, which accesses a product catalog?

```
catalog = {"ProductA": 100, "ProductB": 200}
print(catalog.get("ProductC", "Not Found"))
```

- A. ProductC
- B. None
- C. 100
- D. Not Found

6. What is the result of this code snippet used in data processing?

```
data = {'name': 'Alice', 'role': 'Manager'}
data['department'] = 'HR'
print(data)

A. {'name': 'Alice', 'role': 'Manager'}
B. {'name': 'Alice', 'role': 'Manager', 'department': 'HR'}
C. KeyError
D. 'HR'
```

7. How are dictionary elements accessed in Python?

- A. Using an index like lists.
- B. Using a key.
- C. Using both index and key.
- D. Using the get() method only.

8. Which of the following is the correct way to declare a dictionary?

```
A. my_dict = {}
B. my_dict = []
C. my_dict = ()
D. my_dict = set()
```

9. What is the purpose of the get() method in a dictionary?

- A. To add a new key-value pair.
- B. To update an existing key-value pair.
- C. To retrieve the value for a given key, returning None if the key does not exist.
- D. To remove a key-value pair from the dictionary.

10. What is the result of the following code?

```
employee_data = {"name": "Alice", "dept": "IT"}
employee_data["salary"] = 70000
print(employee_data)

A. {"name": "Alice", "dept": "IT"}
B. {"name": "Alice", "dept": "IT", "salary": 70000}
C. {"salary": 70000}
D. KeyError
```

11. What will be the output of the following code?

```
config = {"debug": True, "version": "1.0"}
print(config.get("theme", "dark"))
```

- A. theme
- B. dark
- C. None
- D. KeyError

12. Which method is used to remove a key-value pair from a dictionary?

- A. remove()
- B. delete()
- C. pop()
- D. clear()

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

```
python
Copy code
project_info = {"name": "Redesign", "status": "In Progress"}
print(list(project_info.keys()))
A. ['name', 'status']
B. ['1', '2']
C. ['Redesign']
D. KeyError
```