



Test

Multiple Choice Questions (MCQ):

1. Which of the following is the correct way to create a tuple in Python?

a)

```
t = [1, 2, 3]
```

b)

```
t = (1, 2, 3)
```

c)

```
t = {1, 2, 3}
```

d)

```
t = <1, 2, 3>
```

2. What is the output of the following code?

```
t = (1, 2, 3)
print(t[1])
```

a) 1

b) 2

c) 3

d) Error

3. Which of these is **not** a valid tuple operation?

a) Indexing

b) Slicing

c) Appending

d) Iteration

4. What will be the result of the following code?

```
t = ("a", "b", "c")
t[0] = "z"
```

```
print(t)
```

- a) ('z', 'b', 'c')
- b) ('a', 'b', 'c')
- c) Error
- d) None of the above

5. Which method is used to count the number of times a value appears in a tuple?

a)

```
index()
```

b)

```
count()
```

c)

```
find()
```

d)

```
search()
```

6. Which of the following is **True** about tuples?

- a) Tuples are mutable.
- b) Tuples support item assignment.
- c) Tuples are faster than lists for iteration.
- d) Tuples can have only integers.

7. What will be the output of the code below?

```
a = (1, 2)
b = (3, 4)
c = a + b
print(c * 2)
```

- a) (1, 2, 3, 4, 1, 2, 3, 4)
- b) (2, 4, 6, 8)
- c) (1, 2, 1, 2, 3, 4, 3, 4)
- d) Error

8. Which of these statements will successfully unpack a tuple?

a)

```
a, b = (1, 2)
```

b)

```
a = b = (1, 2)
```

c)

```
a, b, c = (1, 2)
```

d)

```
a = (1, 2, 3)
```

9. Which of the following is **not** a common use case for tuples?

- a) As keys in dictionaries
- b) Representing fixed collections of items
- c) Creating dynamic data structures
- d) Function return values

Practical Questions:

- 1. Create a tuple named `colors` containing "red", "green", and "blue".
- 2. Write a Python program to access the second item from the tuple `colors`.
- 3. Write a Python function that accepts a tuple of numbers and returns the maximum value.
- 4. Convert the tuple `(1, 2, 3, 4, 5)` to a list and then back to a tuple.
- 5. Write a program that takes a list of tuples, each containing a name and age, and returns the name of the oldest person.

Example input:

```
[('Alice', 30), ('Bob', 25), ('Charlie', 35)]
```

- 6. Create a tuple of 5 integers and write a program to reverse the tuple without using built-in `reversed()` function or slicing.
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