

Name:

1. Which three of Python's core types are considered immutable?

a. strings, lists, dictionaries  
b. strings, tuples, numbers  
c. sets, dictionaries, tuples  
d. tuples, dictionaries, lists

2. \_\_\_\_\_ means that the meaning of an operation depends on the objects being operated on. What is the word in blank should be?

a. garbage collection  
b. immutability  
c. polymorphism  
d. mapping

3. Which statement computes square root of number  $x$ ?

a.  $x ** 0.5$   
b.  $\text{pow}(x, 0.5)$   
c.  $\text{math.sqrt}(x)$   
d. all above

4. What is the output of statement  $x << 2$  if  $x = 2$

a. 8  
b. 4  
c. 12  
d. 6

5. Which statement about sets is False?

a. Sets can have duplicate values.  
b. Sets are mutable.  
c. Sets can only contain immutable object types.  
d. Sets are unordered object types.

6. What is the output of the below statement?

```
[x**2 for x in [1, 2, 3, 4, 5] if x%2 == 0]
```

a. [1, 4, 9, 16, 25]  
b. [2, 4]  
c. [1, 2, 9, 4, 25]  
d. [4, 16]

7. Given

```
T = 'spam', 3.0, [11, 22, 33]
```

Which of the following statements throws an error?

a.  $T = T + T[1:]$   
b.  $T[1]$   
c.  $T[2][1]$   
d.  $T.append(4)$

8. Given

```
L1, L2 = [1, 3, 5, 2, 4], [2, 5, 3, 4, 1]
```

```
output1 = L1 == L2
```

```
output2 = set(L1) == set(L2)
```

What is the value of  $(output1, output2)$ ?

a. (True, False)  
b. (False, False)  
c. (True, True)  
d. (False, True)