Q1: Insert into list

- Execute the following:
  ```python
  >>> x = [5, 6, 5, 9, 10]
  >>> x[3] = -1
  >>> x.insert(1, 2)
  ```
- What is x[4]?
  
  A: 10  
  B: 9  
  C: -1  
  D: ERROR  
  E: I don't know

A1: Insert into list

- Execute the following:
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  >>> x[3] = -1
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- What is x[4]?
  
  A: 10  
  B: 9  
  C: -1  
  D: ERROR  
  E: I don't know

Q2: Swap List Values?

```python
def swap(b, h, k):
    temp = b[h]
    b[h] = b[k]
    b[k] = temp
```

- x = [5, 4, 7, 6, 8]
- swap(x, 3, 4)
- What gets printed?
  
  A: 8  
  B: 6  
  C: Something else  
  D: I don't know

A2: Swap List Values?

- x = [5, 4, 7, 6, 8]
- swap(x, 3, 4)
- What gets printed?
  
  A: 8  
  B: 6  
  C: Something else  
  D: I don't know

Q2: Swap List Values - Explanation (1)

- x = [5, 4, 7, 6, 8]
- swap(x, 3, 4)
- What gets printed?
  
  A: 8  
  B: 6  
  C: Something else  
  D: I don't know

Q2: Swap List Values - Explanation (2)

- x = [5, 4, 7, 6, 8]
- swap(x, 3, 4)
- What gets printed?
  
  A: 8  
  B: 6  
  C: Something else  
  D: I don't know
Q2: Swap List Values

**Explanation (3)**

```python
def swap(b, h, k):
    """Procedure swaps b[h] and b[k] in b
    Precondition: b is a mutable list, h and k are valid positions in the list""
    temp = b[h]
    b[h] = b[k]
    b[k] = temp
```

```python
x = [5, 4, 7, 6, 8]
swap(x, 3, 4)
print(x[3])
```

**Explanation (4)**

```python
def swap(b, h, k):
    """Procedure swaps b[h] and b[k] in b
    Precondition: b is a mutable list, h and k are valid positions in the list""
    temp = b[h]
    b[h] = b[k]
    b[k] = temp
```

```python
x = [5, 4, 7, 6, 8]
swap(x, 3, 4)
print(x[3])
```

Q3: List Slicing

- Execute the following:
  ```python
  >>> x = [5, 6, 5, 9, 10]
  >>> y = x[1:]
  >>> y[0] = 7
  ```
- What is `x[1]`?
  
  A: 7  
  B: 5  
  C: 6  
  D: ERROR  
  E: I don’t know

- Execute the following:
  ```python
  >>> x = [5, 6, 5, 9, 10]
  >>> y = x[:]
  >>> y[1] = 7
  ```
- What is `x[1]`?
  
  A: 7  
  B: 5  
  C: 6  
  D: ERROR  
  E: I don’t know

Q4

- Execute the following:
  ```python
  >>> x = [5, 6, 5, 9, 10]
  >>> y = x
  >>> y[1] = 7
  ```
- What is `x[1]`?
  
  A: 7  
  B: 5  
  C: 6  
  D: ERROR  
  E: I don’t know

A3: List Slicing

- Execute the following:
  ```python
  >>> x = [5, 6, 5, 9, 10]
  >>> y = x[:]
  >>> y[0] = 7
  ```
- What is `x[1]`?
  
  A: 7  
  B: 5  
  C: 6  
  D: ERROR  
  E: I don’t know

- Execute the following:
  ```python
  >>> x = [5, 6, 5, 9, 10]
  >>> y = x
  >>> y[0] = 7
  ```
- What is `x[1]`?
  
  A: 7  
  B: 5  
  C: 6  
  D: ERROR  
  E: I don’t know

A4