Q1: Name Resolution and Inheritance

```python
class A:
    x = 3 # Class Variable
    y = 5 # Class Variable
    def f(self):
        return self.g()
    def g(self):
        return 10

class B(A):
    y = 4 # Class Variable
    z = 42 # Class Variable
    def g(self):
        return 14
    def h(self):
        return 18
```

- Execute the following:
  ```python
  >>> a = A()
  >>> b = B()
  ```
  - What is value of `b.x`?
    A: 4
    B: 3
    C: 42
    D: ERROR
    E: I don't know

A1: Name Resolution and Inheritance

```python
class A:
    x = 3 # Class Variable
    y = 5 # Class Variable
    def f(self):
        return self.g()
    def g(self):
        return 10

class B(A):
    y = 4 # Class Variable
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    def g(self):
        return 14
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```

- Execute the following:
  ```python
  >>> a = A()
  >>> b = B()
  ```
  - What is value of `b.x`?
    A: 4
    B: 3
    C: 42
    D: ERROR
    E: I don't know

Q2: Name Resolution and Inheritance

```python
class A:
    x = 3 # Class Variable
    y = 5 # Class Variable
    def f(self):
        return self.g()
    def g(self):
        return 10

class B(A):
    y = 4 # Class Variable
    z = 42 # Class Variable
    def g(self):
        return 14
    def h(self):
        return 18
```

- Execute the following:
  ```python
  >>> a = A()
  >>> b = B()
  ```
  - What is value of `a.z`?
    A: 4
    B: 3
    C: 42
    D: ERROR
    E: I don't know

A2: Name Resolution and Inheritance

```python
class A:
    x = 3 # Class Variable
    y = 5 # Class Variable
    def f(self):
        return self.g()
    def g(self):
        return 10

class B(A):
    y = 4 # Class Variable
    z = 42 # Class Variable
    def g(self):
        return 14
    def h(self):
        return 18
```

- Execute the following:
  ```python
  >>> a = A()
  >>> b = B()
  ```
  - What is value of `a.z`?
    A: 4
    B: 3
    C: 42
    D: ERROR
    E: I don't know

Q3: eq vs. is

```python
== compares equality
is compares identity
```

c1 = Circle(1, 1, 25)
c2 = Circle(1, 1, 25)
c3 = c2

c1 == c2 → ?
c1 is c2 → ?
c2 == c3 → ?
c2 is c3 → ?

A3: eq vs. is

```python
== compares equality
is compares identity
```

c1 = Circle(1, 1, 25)
c2 = Circle(1, 1, 25)
c3 = c2

c1 == c2 → True
c1 is c2 → False
c2 == c3 → True
c2 is c3 → True
Q4: `isinstance` and Subclasses

```python
>>> s1 = Rectangle(0,0,10,10)
>>> isinstance(s1, Square)
???
```

A: True  
B: False  
C: Error  
D: I don’t know

A4: `isinstance` and Subclasses

```python
>>> s1 = Rectangle(0,0,10,10)
>>> isinstance(s1, Square)
???
```

A: True  
B: False  CORRECT  
C: Error  
D: I don’t know