1. What is the output of the following code?

```python
a = 3
b = (a != 3)
print(b)
```

- **A** True
- **B** False
- **C** 3
- **D** Syntax error

**Answer:** B

Variable b is assigned the result of a relational operator, so it must be a boolean. Here, `a != 3` and the relational operator tests whether `a != 3`, so b is assigned False.

2. What is the output of the following code? `a = 3 b = (a == 3) print(b)

- **A** True
- **B** False
- **C** 3
- **D** Syntax error

**Answer:** A

Variable b is assigned the result of a relational operator, so it must be a boolean. Here, `a == 3` and the relational operator tests whether `a == 3`, so b is assigned True.

3. I would like an expression that evaluates to True when at least one of the following two conditions is true:
   (1) a and b are equal,
   (2) when a has value 5.

Which of these expressions does that?

- **A** `a == b == 5`
- **B** `(a == b) or (a == 5)`
- **C** `(a == b) and (a == 5)`
- **D** `a == (b == 5)`

**Answer:** B

Based on “at least one of” we will need an OR operator, that is, `(a == b) or (a == 5). Option A chains together two tests for equality with AND, so Option A is equivalent to `(a == b) and (b == 5).`