1. **What is the output of the following code?**

```
x = 5
y = 3
print(x % y)
```

   a) 2
   b) 1
   c) 3
   d) 0

2. **Which of the following is a valid comparison operator in Python?**
   a) `===`
   b) `=>`
   c) `!=`
   d) `<>`
3. **What will be the output of this code?**

```
a = 10
b = 20
if a > b:
    print("A is greater")
else:
    print("B is greater")
```

   a) A is greater
   b) B is greater
   c) No output
   d) Error

4. **Which operator is used to raise a number to a power in Python?**
   a) `^`
   b) `**`
   c) `pow`
   d) `exp`

5. **What is the result of the following expression?** `4 + 3 * 2`

   a) 14
   b) 10
   c) 11
   d) 16

6. **What will be printed?**

```
x = 15

if x % 5 == 0 and x % 3 == 0:
```

```
        print("Divisible by both")
else:
    print("Not divisible by both")
```

a) Divisible by both
b) Not divisible by both
c) Error
d) None

7. **What is the output?**

```
a = 5
b = 10
c = 5
print(a == c or b < a)
```

a) True
b) False
c) None
d) Error

8. **Which of the following is NOT a logical operator in Python?**
a) `and`
b) `or`
c) `not`
d) `xor`

9. **What does the following code do?**

```
x = 7
if x > 0:
    if x < 10:
     print("Single-digit positive number")
```

a) Always prints the message
b) Never prints the message
c) Prints only for negative numbers
d) Prints only if x is 10 or more

10. **What is the result of this expression?** `True and False or True`

a) True
b) False
c) Error
d) None

answers :

1. a) — **2**
2. c) — **!=**
3. b) — **B is greater**
4. b) — **`**` (Exponentiation operator)**
5. b) — **10**
6. a) — **Divisible by both**
7. a) — **True**
8. d) — **xor** (Not a valid logical operator in Python)
9. a) — **Always prints the message**
10. a) — **True**

1. **What is the result of `7 // 2` in Python?**
   a) 3.5
   b) 4
   c) 3
   d) 3.0

2. **Which operator is used for bitwise AND in Python?**
   a) `&&`
   b) `&`
   c) `and`
   d) `&&&`

3. **What will be the output of this code?**

```
x = 10
y = 20
if x != y:
    print("Not Equal")
```

   a) Equal
   b) Not Equal
   c) True
   d) False

4. **What does the `not` operator do in Python?**
   a) Performs negation
   b) Performs addition
   c) Checks membership
   d) Checks identity

5. **What is the output of this code?**

```
if False or not False:
    print("Yes")
else:
    print("No")
```

   a) Yes
   b) No
   c) True
   d) False

6. **Which of these expressions evaluates to `True`?**
   a) `10 > 5 and 2 > 3`
   b) `not (10 < 5)`
   c) `5 == 5 or 6 < 4 and 3 == 3`
   d) Both b and c

7. **What will this print?**

```
x = 3
y = 5
if x * 2 > y:
    print("Condition True")
else:
    print("Condition False")
```

   a) Condition True
   b) Condition False
   c) Error
   d) None

8. **Which operator has the highest precedence in Python?**
   a) `and`
   b) `==`

c) `not`
d) `**`

9. **What is the output of this?**

```
x = 4
if x % 2 == 0:
    if x % 4 == 0:
        print("Divisible by 4")
    else:
        print("Even but not by 4")
```

a) Divisible by 4
b) Even but not by 4
c) Error
d) None

10. **Which of these is the correct way to check if two variables refer to the same object in memory?**
a) `a == b`
b) `a = b`
c) `a is b`
d) `a === b`

Answers:

1. **b)** — 3
2. **b)** — `&`
3. **b)** — Not Equal
4. **a)** — Performs negation
5. **a)** — Yes
6. **d)** — Both b and c
7. **b)** — Condition False
8. **d)** — `**`
9. **a)** — Divisible by 4
10. **c)** — `a is b`