1. Which formula represents how the modulo operation (a % b) is calculated in Python?
2. a - b \* (a // b)
3. a + b \* (a // b)
4. a \* b - (a // b)
5. Does not exist

**ANSWER : A**

1. What will be the output of the following Python code?

**a=5%-3\*\*6+2\*87**

**print(a)**

1. -722
2. 0
3. -550
4. None of the above

**ANSWER : C**

1. What will be the output of the following Python code?

**x=2<<4\*3+5//(12//6)**

**print(x and 0)**

1. 0
2. 32768
3. True
4. False

**ANSWER: A**

1. What will be the output of the following Python code?

word = "python"

if "p" in word and word not in ["logic", "while"]:

print("Condition Met")

else:

print("Condition Not Met")

1. Condition Met
2. Condition Not Met
3. TypeError
4. NameError

**ANSWER: A**

1. What will be the output of the following Python code?

**x = 12 % -8 \* 3 - 3 \*\* 3**

**y = x > 10 and x % 2 == 0 or x < 0**

**print(y)**

1. 1
2. False
3. True
4. 0

**ANSWER: C**

1. What will be the output of the following Python code?

squares = [x\*\*2 for x in range(1, 10) if x % 2 == 0]

print(squares)

1. [1, 9, 25, 49, 81]
2. [4, 16, 36, 64, 100]
3. [1, 4, 9, 16, 25, 36, 49, 64, 81]
4. [4, 16, 36, 64]

**ANSWER: D**

1. How is the expression 5 \*\* 2 \*\* 3 evaluated in Python, considering operator associativity?
2. Left to right: (5 \*\* 2) \*\* 3
3. Right to left: 5 \*\* (2 \*\* 3)
4. Left to right: 5 \*\* (2 \*\* 3)
5. Right to left: (5 \*\* 2) \*\* 3

**ANSWER: B**

1. What will be the output of the following Python code snippet?

**tuple1 = (1, 2, [3, 4])**

**tuple2 = (1, 2, [3, 4])**

**tuple3 = tuple1**

**tuple4 = (1, 2, [4, 3])**

**print(tuple1[2] is tuple2[2],tuple1[2] is tuple3[2],tuple1[2] is not tuple4[2])**

1. True True True
2. True True False
3. False True True
4. False False True

**ANSWER: C**

1. What is the primary difference between the is operator and the == operator in Python?
2. is checks value, == checks reference.
3. is checks reference, == checks value.
4. is checks type, == checks value.
5. is compares objects, == compares references.

**ANSWER: B**

1. What will be the output of the following Python code snippet?

**x = 1**

**y = 2**

**x = x ^ y**

**y = x ^ y**

**x = x ^ y**

**print(x, y)**

1. 2 1
2. 1 2
3. 0 0
4. 0 2

**ANSWER: A**

1. What will be the output of the following Python code?

**a = True**

**b = False**

**c = True**

**d = False**

**if (a and b or not c) and (not(d) or not (a and b) and c):**

**print("True")**

**else:**

**print("False")**

1. True
2. False
3. No output
4. Error

**ANSWER: B**

1. What will be the output of the following Python code?

**dict = {"a": 5, "b": 10, "c": 15}**

**if dict["a"] < dict["b"] and dict["c"] >= dict["b"] or dict["a"] == dict["c"]:**

**print("Condition is True")**

**else:**

**print("Condition is False")**

1. TypeError
2. Condition is False
3. SyntaxError
4. Condition is True

**ANSWER: D**

1. What will be the output of the following Python code?

**a, b, c = 1, 12, 5**

**a += c**

**b -= a**

**c \*= c**

**a -= b**

**if a > b or c < a:**

**print(a - b \* c)**

**else:**

**if b < c and a + b != c:**

**print(a % b - c)**

**else:**

**print(a \* b - c)**

1. -1
2. -20
3. -25
4. 10

**ANSWER: C**

1. What will be the output of the following Python code?

**number = 25**

**number %= 7**

**number += 3**

**number -= 2**

**number \*= 3**

**if number > 0:**

**number = number / '3'**

**else:**

**number = number + 3**

**print(number)**

1. 18
2. TypeError
3. 5.0
4. 5

**ANSWER: B**

1. What will be the output of the following Python code?

**a=(~45)**

**a=-(a+1)**

**print(a)**

1. 45
2. -45
3. 46
4. -46

**ANSWER: A**

1. What does the right shift operator (>>) do in Python?
2. Divides by 2^n
3. Multiplies by 2^n
4. Divides by 2
5. No change

**ANSWER: A**

1. What will be the output of the following Python code?

**str1 = "Hello"**

**str2 = "World"**

**result = str1 + " " + str2**

**print(result)**

1. HelloWorld
2. Hello World
3. Hello + World
4. Error

**ANSWER: B**

1. What will be the output of the following Python code?

**str = "Logic While"**

**i = 0**

**result = ""**

**while i < 3:**

**result += str**

**i += 1**

**print(result)**

1. Logic While Logic While Logic While
2. LogicWhile LogicWhile LogicWhile
3. Logic WhileLogic WhileLogic While
4. Error

**ANSWER: C**

1. What will be the output of the following Python code?

**num1 = 20**

**num2 = 25**

**num3 = 15**

**if num1 >= num2 and num1 >= num3:**

**largest = num1**

**elif num2 >= num1 and num2 >= num3:**

**largest = num2**

**else:**

**largest = num3**

**print(largest)**

1. 10
2. 15
3. 25
4. Error

**ANSWER: C**

1. What will be the output of the following Python code?

**s="str"**

**print(s+2)**

1. str str
2. strstr
3. TypeError
4. None of the above

**ANSWER: C**

1. What will be the output of the following Python code?

**a = 10**

**b = 12**

**c = 0**

**d = 5**

**e = 8**

**result = not ((a < 10 and c) or (b > 10 and e > d) or (not (a == b) and c == 0))**

**print(result)**

1. True
2. False
3. Error
4. None

**ANSWER: B**

1. What will be the output of the following code?

**lst = [1, 2, 3, 4]**

**result = 3 in lst and 5 not in lst**

**print(result)**

1. False
2. True
3. Error
4. None

**ANSWER: B**

1. What will be the output of the following code?

**a = 10.0**

**b = 3.0**

**result = a / b \* b + a % b**

**print(result)**

1. 10.0
2. 11.0
3. 9.0
4. 12.0

**ANSWER: B**

1. What will be the output of the following Python code?

**x = {1, 2, 3, 4, 5}**

**y = {3, 4, 5, 6, 7}**

**result = x - y**

**print(result)**

1. {1, 2}
2. {3, 4, 5}
3. {6, 7}
4. {1, 2, 6, 7}

**ANSWER: A**

1. What will be the output of the following Python code?

**nums = [1, 2, 3, 4, 5]**

**result = []**

**for i in range(5):**

**result[i] = nums[i] \* 2**

**print(result)**

1. [2, 4, 6, 8, 10]
2. Index Error
3. [1, 2, 3, 4, 5]
4. []

**ANSWER: B**

1. What will be the output of the following Python code?

**x = 1000**

**y = 1000**

**result = x is y**

**print(result)**

1. True
2. False
3. Error
4. None

**ANSWER: A**

1. Which of the following is used to check if two variables reference the same object in Python?
2. ==
3. is
4. not
5. in

**ANSWER: B**

1. What does the not in operator do in Python?
2. Checks if a value is equal to another value
3. Checks if a value is equal to another value
4. Checks if a value is not in a sequence
5. Checks if two values are not equal

**ANSWER: C**

1. What is the result of the expression **5 == 5 or 3 != 4** in Python?
2. True
3. False
4. None
5. Error

**ANSWER: A**

1. What is the behaviour of the += operator in Python?
2. Assigns a new value
3. Adds the right operand to the left
4. Divides the left operand by the right
5. Multiplies the left operand by the right

**ANSWER: B**

1. What will be the output of the following Python code?

**x = 12**

**y = 18**

**result = not(x > y) or (x == y)**

**print(result)**

1. True
2. False
3. Error
4. None

**ANSWER: A**

1. What is the output of (True and False or True and not False)?
2. True
3. False
4. Error
5. None of the above

**ANSWER: A**

1. What will be the output of the following Python code?

**nums = [10, 15, 20, 25, 30]**

**result = []**

**for num in nums:**

**if num > 10 and num % 2 == 1:**

**result.append(num)**

**print(result)**

1. [15, 20, 25, 30]
2. [20, 25, 30]
3. [15, 25]
4. [10, 15, 20, 25, 30]

**ANSWER: B**

1. Which of the following operators in Python has right-to-left associativity?
2. +
3. \*\*
4. =
5. Both B and C

**ANSWER: D**

1. What will be the output of the expression a is not b where a = [1, 2] and b = a?
2. True
3. False
4. Error
5. None of the above

**ANSWER: B**