

Topic Name: Operators

Student Name and ID: Dharma Reddy Polam (09)

Mentor Name: Tejaswini Annaluri

Date of Submission: 08/01/2025

Approved by: -----

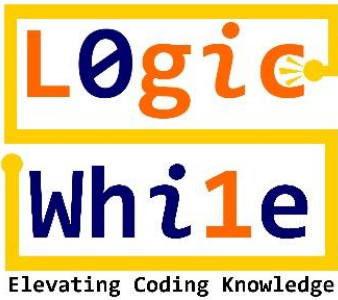
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Performance: -----

Guidelines:

- In one page, a maximum of 5 MCQs and a minimum of 2 MCQs can be included.
- Questions Numbered 1 to 35
- The font name is Calibri (Body), and the size is 12.
- The primary part of the code must be in bold.
- The four choices should be labeled in uppercase, from A to D, followed by).
- All choices must begin with a tab space.
- Write each option on a new line.
- Write the correct answer as shown above, without a tab space after all the options.
- Leave a one-line gap between each question.
- True/False type questions can also be written.

Note: Without practice, don't simply copy and paste from other websites. If you feel it's worthwhile, change the values and process, then put it into the document.



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1. Evaluate the expression:

$(8 // 3) ** 2 + (7 \% 5) * (3 \& 2)$

A) 16

B) 18

C) 12

D) 20

Answer: B

2. What will this expression evaluate to?

$(14 \& 7) | (5 \wedge 2) << 1$

A) 15

B) 14

C) 20

D) 12

Answer: C

3. Find the value of the following expression:

$(10 | 3) \& (5 << 2) \wedge (6 >> 1)$

A) 16

B) 8

C) 20

D) 12

Answer: B

4. What is the result of the following pseudocode?

$a = 4$

$b = 3$

$result = (a ** b) \% 5 | (b << 1)$

$print(result)$

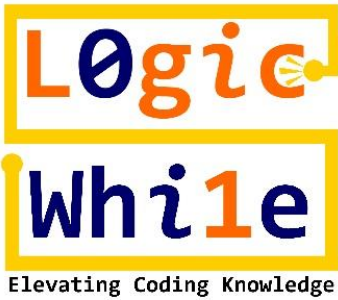
A) 7

B) 6

C) 9

D) 3

Answer: A



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5. Evaluate this compound expression:

$(7 * 2 // 3) + (9 \% 4 << 1) \& (12 >> 2)$

A) 5

B) 7

C) 8

D) 6

Answer: C

6. What is the output of this code snippet?

```
x = 9
```

```
y = 4
```

```
z = (x | y) & (x >> 2) ^ (y << 1)
```

```
print(z)
```

A) 3

B) 7

C) 5

D) 1

Answer: A

7. Calculate the result:

$(13 \% 5) ** 2 + (6 >> 1) | (4 \& 3)$

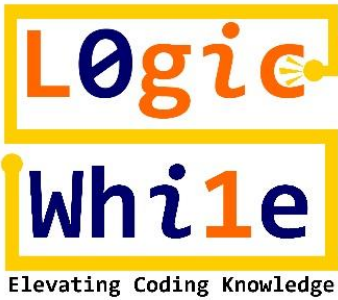
A) 12

B) 14

C) 16

D) 10

Answer: B



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8. What is the associativity of the `` (exponentiation) operator in Python?**

- A) Left-to-right
- B) Right-to-left
- C) Undefined
- D) None (it is non-associative)

Answer: B

9. Given the expression `5 - 3 + 2`, how is it evaluated based on associativity?

- A) `(5 - 3) + 2` (left-to-right)
- B) `5 - (3 + 2)` (right-to-left)
- C) Undefined behavior
- D) Error

Answer: A

10. What will `z = 7; z %= 3` result in?

- A) 3
- B) 1
- C) 7
- D) Error

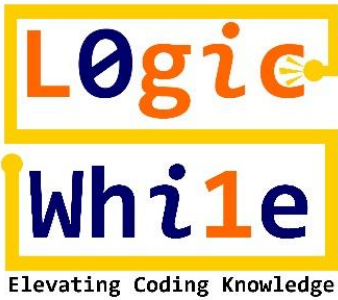
Answer: B

11. What is the output of the following?

```
x = 5
x += 3
print(x)
```

- A) 5
- B) 3
- C) 8
- D) Error

Answer: C



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12. What is the value of x after the following code?

```
x = 4
x **= 2
A) 16
B) 8
C) 4
D) Error
```

Answer: A

13. Evaluate the expression:

True and False or True

A) True
B) False
C) Error
D) None

Answer: A

14. What does the following evaluate to?

not (True and False) or (False and not False)

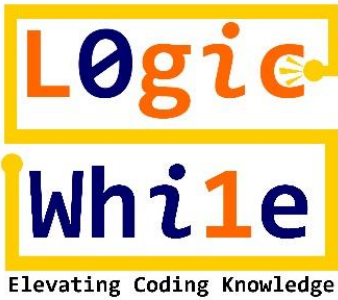
A) True
B) False
C) Error
D) None

Answer: A

15. Which of the following expressions evaluates to False?

A) not (True or False)
B) True and not False
C) False or not (True and True)
D) not (False and False)

Answer: A



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16. Find the result of this pseudocode:

a = False

b = True

c = not a and b or a

print(c)

A) True

B) False

C) Error

D) None

Answer: A

17. What is the value of result in the following pseudocode?

a = 2

b = 5

c = 3

result = (a ** b) // c + (b % c)

print(result)

A) 11

B) 13

C) 15

D) 17

Answer: B

18. What does "a" in "apple" return?

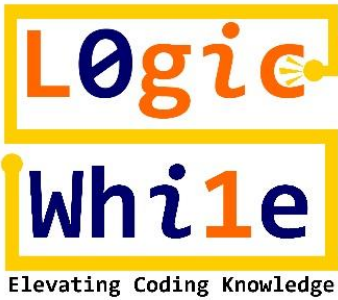
A) True

B) False

C) Error

D) None

Answer: A



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19. What will `3 in [1, 2, 3]` evaluate to?

- A) True
- B) False
- C) Error
- D) None

Answer: A

20. What does `7 not in (5, 6, 8)` evaluate to?

- A) True
- B) False
- C) Error
- D) None

Answer: A

21. What does `x = [1, 2, 3]; y = x; x is y` return?

- A) True
- B) False
- C) Error
- D) None

Answer: A

22. What does `x = 10; y = 20; x is not y` evaluate to?

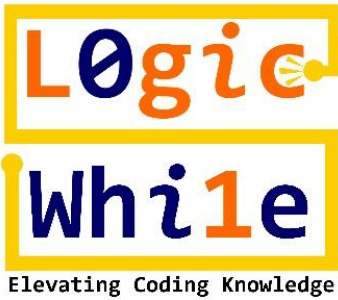
- A) True
- B) False
- C) Error
- D) None

Answer: A

23. What does `5 is 5.0` evaluate to?

- A) True
- B) False
- C) Error
- D) None

Answer: B



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24. What is the output of `2 << 2`?

- A) 8
- B) 4
- C) 16
- D) 2

Answer: A

25. What is `8 >> 2` in Python?

- A) 2
- B) 4
- C) 8
- D) 1

Answer: B

26. What does `~5` return?

- A) -5
- B) -6
- C) 4
- D) 6

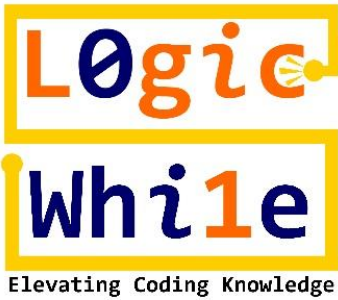
Answer: B

27. What will this print?

```
a = 5
b = 3
a += b
a -= b
a *= b
a //= b
print(a)
```

- A) 5
- B) 6
- C) 7
- D) 9

Answer: A



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28. What will this return?

```
x = 7
y = 3
result = (x & y) == (x | y) and (x ^ y) != 0
print(result)
```

A) True
B) False
C) Error
D) None

Answer: B

29. What does the following code output?

```
x = "hello"
y = "world"
print("h" in x and "w" in y)
```

A) True
B) False
C) Error
D) None

Answer: A

30. What is the associativity of the + and - operators in Python?

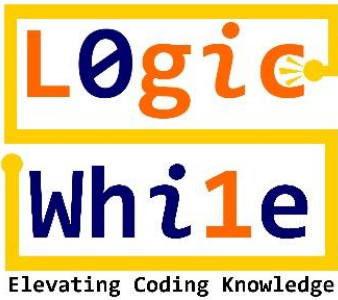
A) Left-to-right
B) Right-to-left
C) None (non-associative)
D) Undefined

Answer: A

31. Which operator has right-to-left associativity in Python?

A) * (multiplication)
B) ** (exponentiation)
C) // (floor division)
D) % (modulus)

Answer: B



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32. What is the result of the expression $10 - 3 + 5 * 2$ considering associativity and precedence?

- A) $10 - (3 + (5 * 2))$
- B) $(10 - 3) + (5 * 2)$
- C) $(10 - (3 + 5)) * 2$
- D) Undefined

Answer: B

33. Which of the following evaluates to **0**?

- A) $10 \% 2$
- B) $15 \& 1$
- C) $5 - 5$
- D) $7 >> 3$

Answer: C

34. Which of these expressions evaluates to **False**?

- A) $5 \text{ in } [1, 2, 3, 4]$
- B) $10 > 2 \text{ or } 3 == 3$
- C) $\text{True and not (False or False)}$
- D) $7 < 5 \text{ and } 9 >= 9$

Answer: D

35. What does this expression evaluate to?

$(8 > 5 \text{ or } 2 > 3) \text{ and not } (4 < 2)$

- A) True
- B) False
- C) Error
- D) None

Answer: A