**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.

1. Which of the following statements is true regarding the behavior of (+) and (\*) operators?

A) **True + True** evaluates to 1

B) **True \* True** evaluates to 2

C) **True + True** evaluates to 2

D**)** **True \* True** evaluates to 0

**Answer: C**

2. What would be the output of given code?

**x, y, z = 5, 7, 10**

**print((not (x < 3) and (y > 6)) or (z % 2 == 0 and not (x + y > z)))**

1. True
2. False
3. Error
4. None of the above

**Answer: A**

3. What would be the output of given code?

**a, b, c = 13, 7, 5**

**print('0b{:08b}'.format((a & b) | (c ^ b)))**

1. 0b00000110
2. 0b00000101
3. 0b00000111
4. 0b00000010

**Answer: C**

4. Which of the following expressions correctly increments x by 1 without using the + operator?

A) **a + ~0**B) **a + 1**C) **~a**D) **a ^ 1**

**Answer: A**

5. Which of the following statements is correct for negating a number x using bitwise operations?

A) **~x**  
B) **-x**C) **~x + 1**D) **x + ~0**

**Answer: C**

**6.** What is the expected output?

**a = [1, 2, 3]**

**b = [1, 2, 3]**

**c = a**

**a += b**

**b = [1, 2, 3]**

**b[0] = 99**

**print(a == b)**

**print(a is b)**

**print(c == a)**

**print(c is a)**

A) True, False, True, True  
B) False, False, True, False  
C) True, False, False, True  
D) False, True, True, False

**Answer:** **B**

7. What is the expected output?

**x = {'a': [1, 2], 'b': [3, 4]}**

**y = {'a': [1, 2], 'b': [3, 4]}**

**z = x**

**print(x['a'] is y['a'])**

**print(x['a'] == y['a'])**

**print([5, 6] in x.values())**

**print(z is x)**

A) False, True, True, True  
B) True, True, True, False  
C) False, False, False, True  
D) True, False, True, True

**Answer: A**

8.Output of the following code

**result = (2 + 3) \*\* 2 \* 4 // 3**

1. 25
2. 24
3. 16
4. 2

**Answer: A**

9.Select which option is correct for the below code

**result = True and 5 + 2 \* (10 // 2) - 3 == 7**

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

**Answer: B**

10. **Which of the following correctly performs floor division and multiplication in one step?**

A) result = a //= b \* c  
B) result = a // b \* c  
C) result = a // (b \* c)  
D) result = a //= (b \* c)

**Answer**: **C**

11. What is the output of the following statements?

**x ,y = 5 , 10**

**reans= x + y ==15 and y - x != 5 or x\* y >60**

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

**Answer: A**

12. From the given code what would be the value of result?

**Result= 5 - 3 \* 3 + 12 // 3 \*\* 2**

1. 4
2. 2
3. -2
4. -3

**Answer: D**

**13**. What will be the output?

**X=8**

**Y=15**

**print((x^y)<<2)**

A) 10  
B) 24  
C) 28  
D) 14

**Answer: C**

**14.** Which operation negates a number and shifts it left by 1?

**A) ~x << 1  
B) x << ~1  
C) (~x) << 1  
D) ~x + 1 << 1**

**Answer: C**

15. Which bitwise operator is used to turn off specific bits in a number?

**A)** & (AND)  
**B)** | (OR)  
**C)** ^ (XOR)  
**D)** ~ (NOT)

**Answer:** **A**

16. **What will this print?**

**result = (3 + 5) \* 2 \*\* 3 // (4 - 2) \*\* 2**

**print(result**)

A) 16  
B) 12  
C) 24  
D) 8

**Answer: A**

17. What is the output of the following code?

**a = [1, 2, 3]**

**b = [1, 2, 3]**

**c = a + b**

**print((1 in c) and (a is not b))**

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

**Answer: A**

18. **What is the output?**

**a = True**

**b = False**

**c = True**

**print((a and b) or (not b and c))**

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

**Answer: B**

**19. Which of the following is True for the expression below?**

**a, b, c = 10, 20, 30**

**result = (a == b) is (b < c)**

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

**Answer: A**

**20. What does the following code print?**

**x = {'a': 1, 'b': 2}**

**y = {'a': 1, 'b': 2}**

**z = x**

**print(x == y, x is y, z is x)**

A) True, True, False  
B) False, True, True  
C) True, False, True  
D) False, False, True

**Answer: C**

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

**a = [1, 2, 3]**

**b = [1, 2, 3]**

**c = a + b**

**print((1 in c) and (a is not b))**

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

**Answer: A**

**22.** What does this code output?

**a, b, c = 7, 3, 5**

**result = a > b and not (b + c > a)**

**print(result)**

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

**Answer: B**

**23**. Which of the following is True for the expression below?

**a, b, c = 10, 20, 30**

**result = (a == b) is (b < c)**

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

**Answer: A**

24. What will this code print?

**a, b = 5, 5.0**

**print(a == b, a is b)**

A) True, True  
B) True, False  
C) False, True  
D) False, False

**Answer: B**

25. What will the following code return?

**lst1 = [1, 2, 3]**

**lst2 = [1, 2, 3]**

**print(3 in lst1 and list1 is lst2)**

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

**Answer: B**

26. Given the following dictionary, what does the expression evaluate to?

**d = {'key1': 100, 'key2': 200}**

**print('key3' in d or 'key2' not in d)**

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

**Answer:** B

27. What is the key difference between is and **==** in Python?

**A)** **is** checks for value equality, while **==** checks for reference equality.  
**B)** **is** checks for reference equality, while **==** checks for value equality.  
**C)** Both perform the same function.  
**D)** is can only be used for numbers.

**Answer:** **B**

28. After the following operation, what will be the values of a and b if a = 10 and b = 15?

**a = a ^ b**

**b = a ^ b**

**a = a ^ b**

**A)** a = 10, b = 15  
**B)** a = 15, b = 10  
**C)** a = 0, b = 25  
**D)** a = 25, b = 0

**Answer:** **B**

30. Which of the following loops will terminate as soon as x becomes a multiple of 5?

A) while not (x % 5): x += 1  
B) while not (x % 5 == 0): x -= 1  
C) while x % 5 == 0: x -= 1  
D) while x % 5 != 0: x += 1

**Answer:** **D**

31 What will be the output of the following code?

**dict = {'key1': 'value1', 'key2': 'value2'}**

**print('key1' in dict and 'value1' in dict)**

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

**Answer: C**

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

**a = 5**

**b = '10'**

**c = a + b**

**print(c)**

A) 15  
B) 510  
C) TypeError  
D) None of the above

**Answer: C**

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

x , y = 4,2

z = '3'

result = x / y + z

print(result)

A) 5.5  
B) 5.5 as string  
C) TypeError

D) 5

**Answer: C**

34.What is the expected output?

**x = [1, 2, 3]**

**print(len(x) and (x[0] \* x[2]) // x[1])**

**A) 1  
B)** 2  
**C)** 3  
**D)** Error

**Answer: A**

35. Write a condition that ensures a loop continues only if a variable x is neither zero nor negative.

**A) while x != 0 or x > 0:  
B) while x > 0:  
C) while not x <= 0:  
D) Both B and C**

**Answer: D**