1. What is the output?

```
x = 0
y = 5
if x and y:
    print("A")
elif x or y:
    print("B")
else:
    print("C")
```

A) A
B) B
C) C
D) Error
Answer: B

2. What is the output?

```
x = []
if x and 0:
    print("True")
else:
    print("False")
```

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

3. What is the output?

```
x = [0]
if x:
    print("Yes")
else:
    print("No")
```

A) Yes
B) No
C) Error
D) None
Answer: A

4. Which statement is true about Python’s short-circuit evaluation?

A) Both sides of 'and' are always evaluated
B) Both sides of 'or' are always evaluated
C) 'and' stops if the left side is False
D) 'or' stops if the left side is False
Answer: C

5. What is the output?

```
x = 5
if x > 2:
    if x < 10:
        if x % 2 == 0:
            print("Even")
        else:
            print("Odd")
```

A) Even
B) Odd
C) Error
D) None
Answer: B

6. What will happen?

```
if 0:
    print("Zero")
elif []:
    print("Empty List")
elif None:
    print("None")
else:
    print("Else")
```

A) Zero
B) Empty List
C) None
D) Else
Answer: D

7. What is the output?

```
x = 10
y = 20
print("Yes") if x > y else print("No") if x < y else print("Equal")
```

A) Yes

B) No
C) Equal
D) Error
Answer: B

8. Which of these is valid?
A) if x > 5 > 2: print("True")
B) if x > 5 and > 2: print("True")
C) if (x > 5) (x > 2): print("True")
D) if x > (5 > 2): print("True")
Answer: A

9. What is the output?
```
x = 5
if x > 2:
    pass
else:
    print("Else")
```
A) Nothing
B) Else
C) Error
D) None
Answer: A

10. Which of the following evaluates to True?
A) if (1,2,3):
B) if ():
C) if []:
D) if "":
Answer: A

11. What is the output?
```
x = None
if x is not None and x:
    print("Yes")
else:
    print("No")
```
A) Yes
B) No
C) Error

D) None
Answer: B

12. Which is the result of this?
```
if 1 < 2 < 3:
   print("Valid")
else:
   print("Invalid")
```
A) Valid
B) Invalid
C) Error
D) None
Answer: A

13. What will be printed?
```
x = True
y = False
if x or y and x:
   print("Yes")
else:
   print("No")
```
A) Yes
B) No
C) Error
D) None
Answer: A

14. What is the output?
```
x = "0"
if x:
   print("True")
else:
   print("False")
```
A) True
B) False
C) Error
D) None
Answer: A

15. Which of these is invalid?

A) if not (x and y):
B) if (x or y) and z:
C) if x and or y:
D) if (x > 0) or (y > 0):
Answer: C

16. Which is correct?
A) Python supports switch-case before 3.10
B) Python 3.10 introduced match-case
C) Python requires external library for switch
D) Python does not support conditional statements
Answer: B

17. What is the output?

```
x = 5
y = 0
if y or x / y:
    print("A")
else:
    print("B")
```

A) A
B) B
C) Error
D) None
Answer: A

18. Which is true about 'if' expressions?
A) They can only be single line
B) They can be nested
C) They cannot use else
D) They must return boolean
Answer: B

19. What is the output?

```
x = [ ]
y = [0]
if x == y:
    print("Equal")
else:
    print("Not Equal")
```

A) Equal
B) Not Equal
C) Error
D) None
Answer: B

20. Which is correct about 'match-case'?
A) It requires break statements
B) It uses case with patterns
C) It works only with integers
D) It cannot use default
Answer: B

21. What is the output?

```
x = True
y = False
if x & y:
    print("Yes")
else:
    print("No")
```

A) Yes
B) No
C) Error
D) None
Answer: B

22. What is the output?

```
x = 10
if (x > 5) and (x < 20) and not (x == 15):
    print("Valid")
else:
    print("Invalid")
```

A) Valid
B) Invalid
C) Error
D) None
Answer: A

23. Which is true about identity and equality?
A) 'is' checks value

B) '==' checks identity
C) 'is' checks identity
D) Both check identity
Answer: C

24. What is the output?
```
x = [1,2]
y = [1,2]
if x is y:
    print("Same")
else:
    print("Different")
```
A) Same
B) Different
C) Error
D) None
Answer: B

25. Which is valid conditional expression?
A) print("A") if True else print("B")
B) print("A" if True else "B")
C) result = "A" if True else "B"
D) All of the above
Answer: D

26. What is the output?
```
x = 0
if x or (1/0):
    print("Yes")
else:
    print("No")
```
A) Yes
B) No
C) Error
D) None
Answer: B

27. Which operator has higher precedence?
A) and
B) or

C) not
D) All equal
Answer: C

28. What will be printed?
```
if bool("False") == False:
    print("X")
else:
    print("Y")
```
A) X
B) Y
C) Error
D) None
Answer: B

29. Which is valid?
A) if (x := 5) > 0: print("Yes")
B) if x = 5: print("Yes")
C) if (x : 5) > 0: print("Yes")
D) if := x > 5: print("Yes")
Answer: A

30. What is the output?
```
x = " "
if x.strip():
    print("Non-empty")
else:
    print("Empty")
```
A) Non-empty
B) Empty
C) Error
D) None
Answer: B

31. Which is true?
A) Python evaluates chained comparisons left to right
B) Python evaluates chained comparisons all at once
C) Python does not allow chained comparisons
D) Python uses bitwise for comparisons
Answer: B

32. What is the output?

```
x = 1
y = 2
if x < y < 3:
    print("Yes")
else:
    print("No")
```

A) Yes
B) No
C) Error
D) None
Answer: A

33. Which will throw error?
A) if all([]): print("Yes")
B) if any([]): print("Yes")
C) if min([]): print("Yes")
D) if max([ ]): print("Yes")
Answer: C

34. Which is valid Python decision making?
A) match value: case 1: print("One")
B) switch value: case 1: print("One")
C) choose value: case 1: print("One")
D) case value: print("One")
Answer: A

35. What is the output?

```
x = 3
if x & 1:
    print("Odd")
else:
    print("Even")
```

A) Odd
B) Even
C) Error
D) None
Answer: A

36. Which is invalid nested if?
A) if x > 0: if y > 0: print("Yes")
B) if x > 0: else: print("No")
C) if x > 0: pass
D) if x > 0: if y < 0: pass
Answer: B

37. What is the output?
```
x = [ ]
if not x:
    print("Empty")
else:
    print("Not Empty")
```
A) Empty
B) Not Empty
C) Error
D) None
Answer: A

38. Which operator cannot be used directly in if?
A) in
B) not in
C) is
D) ===
Answer: D

39. What is the output?
```
x = "Python"
if x[::-1] == "nohtyP":
    print("Yes")
else:
    print("No")
```
A) Yes
B) No
C) Error
D) None
Answer: A

40. What is the output?
x = 0.0

```
if x:
   print("True")
else:
   print("False")
```
A) True
B) False
C) Error
D) None
Answer: B

41. Which evaluates to False?
A) if 0.0:
B) if 0j:
C) if []:
D) All of the above
Answer: D

42. Which of these keywords must always pair with if?
A) else
B) elif
C) pass
D) None
Answer: D

43. Which is correct?
A) Python allows assignment in if directly
B) Python allows walrus operator inside if
C) Python requires double equals for assignment in if
D) None
Answer: B

44. What is the output?
```
x = 10
y = 5
if (x // y) * y == x:
   print("Divisible")
else:
   print("Not Divisible")
```
A) Divisible
B) Not Divisible

C) Error
D) None
Answer: A

45. Which of these is valid syntax?
A) if x > 0 print("Yes")
B) if (x > 0) { print("Yes") }
C) if x > 0: print("Yes")
D) if x > 0 then print("Yes")
Answer: C

46. What is the output?
```
x = [1,2,3]
if sum(x) > 5 and all([i > 0 for i in x]):
   print("Valid")
else:
   print("Invalid")
```
A) Valid
B) Invalid
C) Error
D) None
Answer: A

47. What is the output?
```
x = " "
if x:
   print("True")
else:
   print("False")
```
A) True
B) False
C) Error
D) None
Answer: A

48. Which evaluates to True?
A) if not "":
B) if not []:
C) if not 0:
D) All of the above

Answer: D

49. What is the output?

```
x = {"a":1}
if "a" in x:
    print("Key found")
else:
    print("Not found")
```

A) Key found
B) Not found
C) Error
D) None
Answer: A

50. Which is true about Python if?
A) It must return True/False
B) It accepts any truthy/falsy expression
C) It cannot use strings
D) It cannot use lists
Answer: B