1. **What is instantiation in terms of OOP terminology?**
    In Object-Oriented Programming (OOP), instantiation is the process of creating an instance (object) of a class.

2. **Who developed python programming language?**
    Python was developed by **Guido van Rossum**. He first released it in 1991.

3. **What will be the output ['hello','morning'][bool(")]?**
    Output will be hello.

4. **How to create an empty list?**
    To create an empty list in Python, you can use empty square brackets [] or the list() function.

5. **_____ represents an entity in the real world with it's identity and behaviour.**
    Object.

6. **Is python case sensitive when dealing with identifiers?**
    Yes, Python is case sensitive when dealing with identifiers. This means that Variable, variable, and VARIABLE would be considered three different identifiers.

7. **Which character is used in python to make a single line comment?**
    (#) character

8. **What will be the output of the following snippet?**
    for i in range(float('inf')):
    **   print(i)**
    The code snippet for i in range(float('inf')): print(i) will result in a **TypeError**. This is because the range() function expects integer arguments, and float('inf') is a floating-point number representing infinity.

9. **What will be the output of the following snippet?**
    a=(1,2)
    b=(3,4)
    c=a+b
    print(c)
    The output of the given snippet will be:
    (1, 2, 3, 4)

10. **What is the biggest reason for the use of polymorphism?**

The biggest reason for the use of polymorphism in programming is to enable objects of different classes to be treated as objects of a common superclass. This allows for flexibility and the ability to write more generic and reusable code.

11. **What will be the output of the following snippet?**

```
for i in ' ' :
        print(i)
```

The output of the given snippet will be a single space character printed on a new line.

12. **What will be the output of the following snippet?**

```
a=()
a[2]=1
a[1]=[2,3,4]
print(a[1][1])
```

The given code snippet will result in a **TypeError**. This is because tuples in Python are immutable, meaning their elements cannot be changed after they are created.

13. **What will be the output of the following snippet?**

```
a=(5,4)
b=(1,2,3,4,5)
a<b
```
False

14. **What is the extension of the python file?**

.py

15. **What will be the output of the following snippet?**

```
I=0
while I < 5:
        print(i)
        i += 1
        if i == 3:
                break
        else
                print(0)
```

0,0,1,0,2

16. Suppose list1 is [2,33,222,14,25], what is list1[:-1]?

```
[2, 33, 222, 14]
```

17. What will be the output of the following snippet?

my_tuple = (1,2,3,4)

my_tuple.append((5,6,7))

print len(my_tuple)

The given code snippet will result in an AttributeError. This is because tuples in Python are immutable, meaning they do not support methods that modify their contents, such as append().

18. What will be the value of the following python expression.
4+3%5
7

19. What will be the output of the following snippet?
print("Hello {0[0]} and {0[1]}".format(('foo' , 'bin')))
Hello foo and bin

20. What will be the output of the following snippet?
a=[13,56,17]
a.append([87])
a.extend([45,67])
print(a)
[13, 56, 17, [87], 45, 67]

21. What will be the output of the following snippet?
a={4,5,6}
b={2,8,6}
a+b

The given code snippet will result in a TypeError. This is because the + operator is not defined for sets in Python.

22. What is the order of precedence in python?
Parentheses ()

Exponentiation `**`

Unary plus and minus `+x`, `-x`, and bitwise NOT `~x`

Multiplication, **division**, **floor division**, and **modulus** `*`, `/`, `//`, `%`

Addition and **subtraction** `+`, `-`

Bitwise shifts `<<`, `>>`

Bitwise AND `&`

Bitwise XOR `^`

Bitwise OR `|`

Comparisons `==`, `!=`, `>`, `>=`, `<`, `<=`, `is`, `is not`, `in`, `not in`

Boolean NOT `not x`

Boolean AND `and`

Boolean OR `or`

23. **The process of pickling in python includes _____**

Serializing

24. **What will be the output of the following snippet?**
    T=(1,2,4,3,8,9)
    [t[i] for I in range(0, len(t), 2)]

[1, 4, 8]

25. **Differentiate structured and unstructured programming**

Feature	Structured Programming	Unstructured Programming
Control Structures	Uses loops, conditionals, and functions	Uses goto statements and jumps
Code Organization	Code is modular and organized into functions	Code is often a single, continuous block

26. **Write the output**
    minutes= 645

hours=minutes/60

hours

10.75

27. Differentiate between while and for loop.

Feature	while Loop	for Loop
Purpose	Repeats a block of code as long as a condition is true	Iterates over a sequence (like a list, tuple, or string) or other iterable objects
Syntax	while condition:	for variable in sequence:

28. How do we convert the string into lowercase?

To convert a string into lowercase in Python, you can use the lower() method.
This method returns a new string with all the characters converted to lowercase.

29. How does a function returns value?

In Python, a function returns a value using the return statement. When
the return statement is executed, the function exits and the specified value is
sent back to the caller.

30. How to delete a file?

To delete a file in Python, you can use the os.remove() function from
the os module.

31. How to express switch case statements using flowchart?
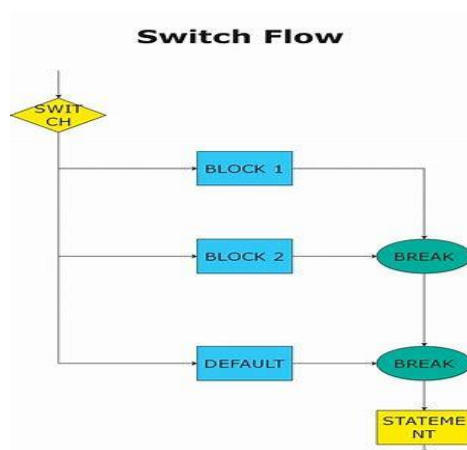
32. What will happens if we write
   17=n
   Print(n)

The code snippet 17 = n will result in a SyntaxError. This is because in Python, the left-hand side of an assignment must be a variable, not a literal value.

33. Define iterator

An iterator is an object in programming that allows you to traverse through a collection of elements, such as arrays or lists, one element at a time. It provides a way to access the elements of a collection sequentially without exposing the underlying structure.

34. Explain the statement f.seek(-3,2)

The statement f.seek(-3, 2) is used in file handling in Python to move the file pointer to a specific position in the file.

35. What is the value of M and N respectively? If M39048458N is divisible by 8 and 11 ; where M and N are single integers.

To find the values of (M) and (N) such that the number (M39048458N) is divisible by both 8 and 11, we can use the following approach:

1. **Divisibility by 8**: A number is divisible by 8 if its last three digits form a number that is divisible by 8.
2. **Divisibility by 11**: A number is divisible by 11 if the difference between the sum of its digits in odd positions and the sum of its digits in even positions is a multiple of 11 (including 0).

After checking all possible values for (M) and (N), the values that satisfy both conditions are:

- (M = 6)
- (N = 4)

So, the number (6390484584) is divisible by both 8 and 11.

36. How to express subroutine calls using flowchart?

1. **Start**: Begin with an oval labeled "Start".
2. **Process**: Use a rectangle for the main process, e.g., "Input Data".
3. **Decision**: Use a diamond for a decision point, e.g., "Is Data Valid?".

4. **Subroutine Call**: Use a rectangle with double vertical lines for the subroutine call, e.g., "Process Data".
5. **Return to Main Flow**: After the subroutine, return to the main flow with another process or decision.
6. **End**: End with an oval labeled "End".