1.Write a simple algorithm for finding the maximum of three numbers using pseudocode

Input: 3 Numbers : n1,n2,n3

Output: max of three numbers

Begin

Step 1:If n1>n2 And n1>n3,then

Max=n1

Else if n2>n3,then

Max=n2

Else

Max=n3

Step 2: returm Max

End

2. Compare and contrast two different programming languages, highlighting their strengths and weaknesses.

Feature	Python	Java
Ease of use	Simple syntax, beginner-friendly	Complex syntax, more structured
Performance	Slower due to Interpretation	Faster as it compiles to bytecode
Applications	Data science, web development	Enterprise applications, Android development
Typing	Dynamically typed	Statically typed
Learning Curve	Easier for beginners	Steeper learning curve

3. Explain the compilation process and how it differs from interpretation.

Compilation

Translates the entire source code into machine code (binary) at once before execution.

Advantages: Faster execution, error-checking before runtime.

Disadvantages: Debugging takes more time.

Example: Java, C++.

Interpretation:

Translates source code line by line during execution.

Advantages: Easier debugging, flexibility.

Disadvantages: Slower execution, no standalone binary.

Example: Python, JavaScript.

4. Create a flowchart for a program that calculates the factorial of a given number.

Start: Begin the program

Input: Read the integer n

Initialize: Set fact=1.

Loop: Repeat fact=fact*i for I from 1 to n

Output: Display fact

End: Stop the program

5. Write a function in your preferred programming language to calculate the area of a rectangle.

```
def area(l,b):
    return l*b
print(area(3,5))
```