📚 **B.Tech CSE 5th Semester**

Syllabus

1. Design and Analysis of Algorithms (DAA)

Topics:

I- Algorithm analysis (time & space complexity)

II- Divide and Conquer

III- Greedy algorithms

IV- Dynamic programming

V- Backtracking

VI- Branch and Bound

VII- Graph algorithms

2. Compiler Design

Topics:

I- Introduction to compiler

II- Lexical analysis

III- Syntax analysis (parsing)

IV- Syntax directed translation

V- Intermediate code generation

VI- Code optimization

VII- Code generation

3. Operating System (OS)

Topics:

I- Process & thread management

II- CPU scheduling

III- Deadlocks

IV- Memory management

V- Virtual memory

VI- File systems

4. Database Management System (DBMS)

Topics:

I- ER model

II- Relational model

III- SQL queries

IV- Normalization

V- Transaction management

VI- Concurrency control

5. Computer Graphics / Elective

Topics:

I- Graphics systems

II- 2D & 3D transformations

III- Clipping algorithms

IV- Rendering and shading

6. Information Theory / Communication / Elective

Some colleges add subjects like:

I- Information theory

II- Wireless communication

III- AI / Machine learning elective

Labs in 5th Semester

I- DBMS Lab

II- Compiler Design Lab

III- DAA Lab

IV- Advanced Java / Programming Lab

V- Mini Project / Industrial Training