ANNEXURE-I

COMPUTER SCIENCE AND ENGINEERING

(SYLLABUS)

1. **Digital Electronics**: Number Systems-Logic Gates, Boolean Algebra and basic Combinational circuits-Flip-Flops-Counters and registers-Additional Combinational Circuits.

2. **Software Engineering**: Basics of Software Engineering Designs & Life Cycle Models-Software Project Management-Requirement Analysis & Specifications- Software Design, Coding-Software testing, Debugging, Reliability, Quality Management &Maintenance.

3. **Computer Organisation and Microprocessors**: CPU Organization-Information representation and Arithmetic Operations-Memory Organization-I/O Organization- Fundamentals of 8086 and Advanced Processors.

4. **Data structures through C**: Introduction to Data structures, Searching and Sorting-Linked Storage Representation-Linked Lists-Linear Data Structures-Stacks-Linear Data Structures-Queues-Non-Linear Data Structures-Trees.

5. **Computer Networks**: Introduction to Networks-LAN components, Devices, tools, and Network Topologies-Network Addressing and sub-netting-Networks protocols and management-Basic Network administration.

6. **Operating Systems**: Introduction to Operating system-Process management- Synchronization & Deadlocks-Memory Management-Disk scheduling and File Management

7. **DBMS**: Concepts of DBMS & RDBMS-Concepts of SQL-Basics of PL/ SQL- Advanced PL/SQL-Concepts of NoSQL & MongoDB.

8. **Object oriented Programming through C++**: Object oriented programming concepts & Introduction to C++-Functions, Arrays, Pointers &References- Constructors, Destructors & Operator Overloading- Inheritance& Virtual functions- C++ I/O & Templates.

9. **Java Programming**: Basics of java and overloading-Concepts of inheritance, overriding, Interfaces and Packages-I/O Streams and Collections-Exception handling and Multithreaded Programming-Applets, AWT and Event Handling.

10. **Web Technologies**: Principles of Web Designing and HTML Introduction- Various HTML tags and usage of style sheets-Understand XML and Client side scripting using Java Script-JavaScript Ajax and J Query-Web servers and Server side scripting using PHP.

ANNEXURE-II

COMPUTER SCIENCE AND ENGINEERING

(SYLLABUS)

DISTRIBUTION OF QUESTIONS UNIT WISE

S.No.	Unit	Questions
1	Digital Electronics	8
2	Software Engineering	8
3	Computer Organization and Microprocessors	12
4	Data Structures through C	10
5	Computer Networks	12
6	Operating Systems	12
7	DBMS	10
8	Object Oriented Programming through C++	10
9	Java Programming	10
10	Web Technologies	8

ANNEXURE-III

COMPUTER SCIENCE AND ENGINEERING

(SYLLABUS)

MODEL QUESTIONS

1. In a circular linked list, the insertion of a record involves modification of

    1. 3 pointers
    2. 4 pointers
    3. 2 pointers
    4. No pointers

2. Which of the following layer of OSI reference model deals with end to end communication?

    1. Presentation layer
    2. Session layer
    3. Network layer
    4. Transport layer