

ANNEXURE-I
COMPUTER SCIENCE AND ENGINEERING
(APECET 2026 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 & Cyber Security:** Introduction to Networks-LAN components, Devices, and Network Topologies-OSI Reference Model-TCP/IP Protocol Suite-Network Addressing and subnetting-Networks protocols and management-Network Security-Encryption Techniques-System security-Threats-Cyber crime
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. **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
9. **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.
10. **Big-data & Cloud Computing:** Overview of Data mining-Data Ware Housing- Introduction to Big Data-Big Data Analytics-Big Data Technologies-Cloud Computing
11. **Android Programming:** Android Basics- Android Anatomy-Components-Activity Life Cycle-Intents-Android User Interface-Layouts-UI Controls-Android Advanced Concepts-Database Connectivity in Android
12. **Internet Of Things(IoT):** Introduction- Data Protocols-MQTT-CoAP-XMPP-AMQP-Communication Technologies-IEEE802.15.4-ZIGBEE-NFC-Bluetooth-Wireless Sensor Networks-Role of IoT in Automation-Health Care-Smart Homes Smart Cities-Smart Class rooms-Smart Energy- Smart Factory-Smart Transportation and Mobility
13. **Python Programming:** Introduction to Python-Control Flow & Loops-Functions & Arrays-Data Structures-Object Oriented Programming in Python-File Handling-Exception Handling

ANNEXURE-II
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DISTRIBUTION OF QUESTIONS UNIT WISE

S.No.	Unit	Questions
1	Digital Electronics	6
2	Software Engineering	6
3	Computer Organization and Microprocessors	8
4	Data Structures through C	10
5	Computer Networks	6
6	Operating Systems	10
7	DBMS	8
8	Java Programming	10
9	Web Technologies	8
10	Bid-data & Cloud Computing	6
11	Android Programming	6
12	Internet Of Things(IoT)	8
13	Python Programming	8

ANNEXURE-III
COMPUTER SCIENCE AND ENGINEERING
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MODEL QUESTIONS

1. In a circular linked list, the insertion of a record involves modification of
 1. 3pointers
 2. 4pointers
 3. 2pointers
 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

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Deleted subjects in C20 Syllabus:

1. Object Oriented Programming through C++

Included subjects in C23:

1. Big-data & Cloud Computing
2. Android Programming
3. Internet Of Things(IoT)
4. Python Programming
5. Cyber Security (a part in Computer Networks)

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