COMPUTER SCIENCE

1. Data Structures

Continuous and Non-continuous data structure Dynamic storage allocations, File organisation techniques.

2. Formal Languages and Automata Theory

Finite state machines, Push down automata, Finite automata, Context free language, Contact sensitive languages, Turing machine, Decision question and Undecided problems.

3. Computer Organisation

Functional components, CPU design, Memory organisation and I/) organisation.

4. Principle of Programming Languages

Various programming paradigms Syntax, Semantics, Block structure, Scooping Binding, Object oriented programming Functional programming. Logic and Concurrent programming.

5. Operating Systems

Process management, Memory management, File management and I/O management.

6. Software Engineering

Life cycle model, Function oriented design, Object oriented design, User interface design, Coding and Testing, Software requirement, Project management, Software reliability and Maintenance.

7. Database Management

Concept, Data independence, Difference models, Storage organisation, Query languages, Normal forms, Decomposition, Security, Concurrency, Recovery.

8. Data Communication and Computer Networks

Basics of digital communication, Network architecture, Physical layer, Transport layer and Application layer.