

राष्ट्रीय इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी संस्थान (रा.इ.सू.प्रौ.सं.) National Institute of Electronics and Information Technology (NIELIT)

गुवाहाटी केंद्र / Guwahati Centre

इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी मन्त्रालय / Ministry of Electronics and Information Technology (MeitY) भारत सरकार / Government of India

M.Sc. (Computer Science) Entrance Examination - Detailed Syllabus

Total Marks: 50

Section A: General Reasoning & Logical Ability (Marks: 15)

- Analytical Reasoning
- Verbal & Non-Verbal Reasoning
- Series (Number, Alphabet, and Figure based)
- Coding-Decoding
- Blood Relations and Directions
- Puzzles & Seating Arrangement

Section B: Quantitative Aptitude (Marks: 15)

- Number System & Simplification
- Ratio, Proportion, and Percentage
- Average, Profit & Loss, Simple & Compound Interest
- Time, Speed, and Distance
- Mensuration & Probability
- Basic Algebra & Geometry

Section C: Computer Science (Marks: 20)

1. Programming & Data Structures

- C/C++/Java Basics
- Control Structures, Functions, Pointers
- Arrays, Linked Lists, Stacks, Queues, Trees, Graph
- Searching & Sorting Algorithms

2. Computer Organization & Architecture

- Number Systems & Digital Logic
- Boolean Algebra, Logic Gates, Combinational & Sequential Circuits
- CPU Architecture, Instruction Set, Pipelining
- Memory Hierarchy, Cache, I/O Systems

3. Operating Systems

- Process Management & Scheduling
- Threads, Deadlocks
- Memory Management & Virtual Memory
- File Systems

4. Computer Networks

- OSI & TCP/IP Models
- Network Topologies & Protocols
- IP Addressing, Subnetting
- Routing & Switching Basics