

## **Syllabus for PGET**

### **M. Tech (CSE) Program**

#### **Reasoning**

Verbal Ability and Reasoning, Quantitative Ability and Reasoning, Logical Connectives, Binary Logic, Logical Sequence and Matching, Seating Arrangement, Number and Letter Series, Coding-Decoding, Decision, Data interpretation and analysis, Analytical reasoning, Analogy, Assertion & reason, Situation & reaction, Logical deduction, Argument construction, Argument Evaluation, Divergent and lateral thinking, Creativity.

#### **Mathematics**

Number representation, binary arithmetic; Boolean algebra, Set, Relation, Function, Lattices, Probability theory: conditional probability, Bayes' theorem, probability distributions, Statistics: fundamentals, measurement of central tendency, sampling theory, sampling distributions, Matrix manipulation, Linear equation.

#### **Components of computers**

Processors, Primary and Secondary Memory Devices, Memory Management, I/O interfaces, System and Application software, Operating Systems, File Systems, DBMS, Computer networks, Internet and World Wide Web

#### **Problem solving by computers:**

Basic programming in C & C++, Java, Basic Data Structures: Arrays, Linked lists, Trees, Graph, Fundamental Algorithms: Sorting and searching, Algorithm design techniques- divide and conquer, greedy, backtracking, dynamic programming.