



GANDHI INSTITUTE OF TECHNOLOGY AND MANAGEMENT (GITAM)

(Declared as Deemed to be University u/s 3 of UGC Act, 1956)

Visakhapatnam | Hyderabad | Bengaluru

Accredited by **NAAC** with **A++** Grade

Website: www.gitam.edu

GITAM SCHOOL OF SCIENCE

PhD Entrance Test Syllabus

PhD in Science: Computer Science

Data Structures: Understanding of fundamental data structures- Lists, Stacks, Queues, Heaps, Trees, Graphs and their applications. Searching and Sorting Techniques.

Operating Systems: Functions, Types of OS, Operating System Structure, Services, System Boot, Process, CPU Scheduling, Process Synchronization, Deadlocks, Memory Management, File Access Methods, Unix Structure and Simple Commands.

Computer Networks: Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Wireless Transmission, Digital Modulation and Multiplexing, The Mobile Telephone System, Error Detection and Correction, Sliding Window Protocols, Ethernet, Routing Algorithms, Congestion Control Algorithms.

Database Management System: Introduction, Data Models, Schemas and Instance, Three-Schema Architecture and Data Independence, E-R Diagrams, Relational Model, Database Design, Integrity Constraints, Normal Forms, SQL Queries.