

# PGDCA

## CS-DE-11: Computer Organization & Networking Fundamentals

CO-1	Understand the fundamentals of Computer.
CO-2	Learn different Number systems and Conversion between them.
CO-3	To study Boolean functions and simplification of Boolean expressions.
CO-4	To study all combinational circuits.
CO-5	To study all sequential circuits.
CO-6	To understand the concepts of registers and counters.
CO-7	Understand the concept of Networking, topologies, various transmission media and network hardware components.
CO-8	Understand the concept of Internet, IP address, DNS, E-Mail
CO-9	Understand concepts of HTTP, FTP, URL, FTP etc.

## CS-DE-12: Problem Solving Through 'C'

CO-1	To learn the concept of compiler, interpreter, assembler, problem solving and documentation.
CO-2	To study history, importance, elements and basic data types of C language.
CO-3	To learn the use of all operators used in C language.
CO-4	To learn various input and output function in C.
CO-5	To understand all control structures like selection, iteration, break, continue.
CO-6	To learn the concept of Array, string used in C.
CO-7	To learn storage classes used in C.
CO-8	To understand the concept of pointers, structure and union in C.

## CS-DE-13: Data Structures

CO-1	To choose appropriate data structure as applied to specified problem definition
CO-2	To use linear data structures like array, stacks, queues , linked list etc
CO-3	To use non-linear data structures like graph and tree.
CO-4	To handle operations like insertion, deletion, traversing mechanism etc. on various data structures.
CO-5	To use algorithmic foundations for solving problems and programming.
CO-6	Select appropriate searching and/or sorting techniques for application development
CO-7	To learn applications of all data structure in real life.
CO-8	Learn complexity of all types of algorithms.

### **CS-DE-14: Data Base Management System**

CO-1	Understand, appreciate and effectively explain the underlying concepts of database technologies.
CO-2	Understand E-R model concepts and various E-R diagrams.
CO-3	Understand Data Models and Comparison between Hierarchical, Network and Relational models.
CO-4	Understand the concept of Relational Algebra.
CO-5	Master the basics of SQL and construct queries using SQL.
CO-6	Understand the concept of Normalization and various normal forms.
CO-7	Learn and implement MS-Access and various concepts in it.

### **CS-DE-15: Operating System**

CO-1	Understand functions, structures and history of operating systems.
CO-2	Understand Various Operating Systems and Concept of CPU Scheduling.
CO-3	Understand various process management concepts including scheduling, synchronization, and deadlocks.
CO-4	Understand concepts of memory management including virtual memory.
CO-5	Understand issues related to file system interface and implementation, disk management
CO-6	Be familiar with protection and security mechanisms.
CO-7	Be familiar with Windows Operating System and its different versions.
CO-8	Understand Desktop, Icons, Files, Toolbar, Folders, control panel of Window.
CO-9	Be familiar with various types of operating systems including LINUX.