

# Department of Computer Science:-

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### **Semester - I [MSGCOR01T & MSGCOR01P] Problem Solving with Computer**

CO 1: An Ability to learn about a computer, it's characteristics, advantages, types of computers and the generations of computer.

CO 2: Understanding of basic computer organization, and memory hierarchy, registers, and I/O devices.

CO 3: Understanding the concept of problem solving, program design and debugging types of errors and documentation.

CO 4: Learning the techniques of problem solving.

CO 5: Learning the basic features of Python programming language.

CO 6: Learning to write a source code in Python with dry run.

CO 7: Understanding some basic features of advance Python and its uses.

### **Semester - II [MSGCOR02T & MSGCOR02P] Database Management System**

CO 1: An ability to understand the fundamental concept of database.

CO 2: An ability to understand user requirements and frame it in data model.

CO 3: An ability to understand creations, manipulation, and querying of data in database.

CO 4: An ability to solve real world problems using appropriate set, functions, and relational model.

CO 5: An ability to design E-R model for given requirements and convert the same into database table.

CO 6: An ability to use SQL.

### **Semester - III [MSGCOR03T & MSGCOR03P] Operating System & LINUX**

CO 1: An ability to understand what OS is.

CO 2: An ability to understand the difference between System software and Application software.

CO 3: An ability to understand multiprogramming, multitasking, time sharing concept.

CO 4: An ability to understand operating system organization.

CO 5: An ability to understand process management, scheduling, and memory management.

CO 6: An ability to understand Shell and Shell scripting.

#### **Semester - IV [CMSGCOR04T & CMSGCOR04P] Computer System Architecture**

CO 1: An ability to understand basic gates, Boolean algebra, combinational circuit, circuit simplification rules, sequential Circuits, F/F, decoders, multiplexers, registers, counters, and memory units.

CO 2: An ability to represent data in various bases and coding format.

CO 3: Understanding ability of the number systems, complements and basic arithmetic on numbers.

CO 4: Understanding ability of the CPU (The brain of a computer).

CO 5: Writing ability of basic computer instructions and creating ability of some simple program.

CO 6: Understanding ability of I/O devices, modes of transfer, DMA.

#### **Semester - V [CMSGDSE01T] Programming in JAVA**

CO 1: Understanding ability of the basic concept of OOP and POP.

CO 2: An ability to understand the advantage of JAVA over other languages.

CO 3: Learning ability of basic JAVA features and JDK environment.

CO 4: Learning the implementation of OOP concept through JAVA.

CO 5: An ability to learn the uses and types of arrays and strings.

CO 6: An ability to learn abstract class, interface, packages, exception handling, file handling and applet programming.

#### **Semester - V [CMSGDSE02T] Discrete Structures**

CO 1: An ability to understand sets and its properties, relations, functions, closure, partial ordering.

CO 2: An ability to apply mathematics in real life problems.

CO 3: An ability to learn and apply graph theory for computing.

CO 4: An ability to understand the logic and well formed formulas in advance studies.

#### **Semester - VI [CMSGDSE03T] Software Engineering**

CO 1: An ability to understand definition of Software Engineering, SDLC model in detail.

CO 2: An ability to apply software development through mini project/coding.

CO 3: An ability to learn testing mechanism.

CO 4: An ability to learn industry-based software development technique.

CO 5: An ability to deal with customers.

#### **Semester - VI [CMSGDSE04T] Computer Networks**

CO 1: An ability to understand the component of data communication, standards and organization.

CO 2: An ability to learn about Network classification and topologies, protocols, layered network architecture.

CO 3: An ability to differentiate between OSI reference model and TCP/IP protocol.

CO 4: An ability to understand transmission media devices, framing techniques, error detection, error correction and flow control protocols.

CO 5: An ability to understand virtual circuits, IP addressing method and Routing algorithm.

CO 6: An ability to learn about network security.

#### **Semester - III [CMSSEE01M] Programming in Python (Skill Enhancement Course)**

CO 1: An ability to understand the concept of problem solving, program design, debugging, types of errors in programs and documentation.

CO 2: An ability to learn the techniques of problem solving and programming approach.

CO 3: An ability to write programs in Python.

CO 4: An ability to solve real life problems through programming technique.

CO 5: An ability to apply programming for advance studies.

#### **Semester - IV [CMSSEE02M] R Programming (Skill Enhancement Course)**

CO 1: An ability to know the advantage of learning of R programming language.

CO 2: An ability to learn the introduction and basic structures of R.

CO 3: An ability to write and execute basic R programs.

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