

# Academic Calendar for the session of 2020 -21

## ODD Semester

### SEM 1 - CMSGCOR01T : PROBLEM SOLVING WITH COMPUTER

DURATION	TOPIC	DETAILS	LECTURES TO BE DELEVERD BY	NO. OF LECTURES
August To September	Computer Fundamentals:	Introduction to Computers: Characteristics of Computers, Uses of computers, Types and generations of Computers. (3L) Basic Computer Organization - Units of a computer, CPU, ALU, memory hierarchy, registers, I/O devices	DG	3
Mid-September to November	Planning the Computer Program	Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming, Documentation	PD	3
	Techniques of Problem Solving	Flowcharting, decision table, algorithms, Structured programming concepts, Programming methodologies viz. top-down and bottom-up programming.	DG	4
	Overview of Programming	Structure of a Python Program, Elements of Python	PD	8
November	Introduction to Python	Python Interpreter, Using Python as calculator, Python shell, Indentation. Atoms, Identifiers and keywords, Literals, Strings, Operators (Arithmetic operator, Relational operator, Logical or Boolean operator, Assignment, Operator, Ternary operator, Bit wise operator, Increment or Decrement operator).	PD	10
December	Creating Python Programs	Input and Output Statements, Control statements (Looping while Loop, for Loop , Loop Control, Conditional Statement- if...else, Difference between break, continue and pass). Structures: Numbers, Strings, Lists, Tuples, Dictionary, Date & Time, Modules, Defining Functions, Exit function, default arguments.	DG	10
	Introduction to Advanced Python	Objects and Classes, Inheritance, Regular Expressions ,Event Driven Programming, GUI Programming.	DG	14

**DISCIPLINE SPECIFIC ELECTIVE PAPERS**  
**SEM V CMSGDSE01T: PROGRAMMING IN JAVA**

<b>DURATION</b>	<b>TOPIC</b>	<b>DETAILS</b>	<b>LECTURES TO BE DELEVERD BY</b>	<b>NO. OF LECTURES</b>
July To Mid-August	Introduction to Java:	Features of Java, JDK Environment	DG	2
	Object Oriented Programming Concept	Overview of Programming, Paradigm, Classes, Abstraction, Encapsulation, Inheritance, Polymorphism, Difference between C++ and JAVA	DG	12
	Java Programming Fundamental	:Structure of java program, Data types, Variables, Operators, Keywords, Naming Convention, Decision Making (if, switch), Looping(for, while) ,Type Casting	DG	12
Mid-August To September	Classes and Objects	: Creating Classes and objects, Memory allocation for objects, Constructor Implementation of Inheritance, (12L) Implementation of Polymorphism, Method Overloading, Method Overriding, Nested and Inner classes	DG	12
	Arrays and Strings:	Arrays, Creating an array, Types of Arrays, String class Methods, String Buffer methods.	PD	8
	Abstract Class, Interface and Packages	: Modifiers and Access Control, Abstract classes and methods, Interfaces, Packages Concept, Creating user defined packages	DG	10
November	Exception Handling:	Exception types, Using try catch and multiple catch, Nested try, throw, throws and finally, Creating User defined Exceptions. (6L)	PD	6
December	File Handling	: Byte Stream, Character Stream, File IO Basics, File Operations, Creating file, Reading file, Writing File	DG	6
	Applet Programming:	Introduction, Types Applet, Applet Life cycle, Creating Applet, Applet tag	PD	7

## SEM III CMSGCOR03T: OPERATING SYSTEMS

**Class started from 20<sup>th</sup> September**

DURTION	TOPIC	DETAILS	LECTURES TO BE DELEVERD BY	NO. OF LECTURES
August To Mid-September	0.	System Software, Resource Abstraction, OS strategies.	PD	2
	Types of operating systems	Multiprogramming, Batch, Time Sharing, Single user and Multiuser, Process Control & Real Time Systems.	PD	2
	Operating System Organization	Factors in operating system design, basic OS functions, implementation consideration; process modes, methods of requesting system services – system calls and system programs	PD	10
Mid To End SEPTEMBER	Process Management	: System view of the process and resources, initiating the OS, processaddress space, process abstraction, resource abstraction, process hierarchy,	DG	12
November	THREAD	Thread model Scheduling Mechanisms, Strategy selection, non-pre-emptive and pre-emptive strategies	PD	12

December	Memory Management	Mapping address space to memory space, memory allocation strategies, fixed partition, variable partition, paging, virtual memory	DG	7
December	Scheduling	Scheduling Mechanisms, Strategy selection, non-pre-emptive and pre-emptive strategies.	PD	15