

ACADEMIC CALENDAR FOR THE SESSION OF 2020 - 21

EVEN SEMESTER

DURATION	TOPIC	DETAILS	LECTURES TO BE DELEVERD BY	NO. OF LECTURES
February	Introduction to Database Management Systems	Characteristics of database approach, data models, DBMS architecture and data independence.	PD	3
Mid-February to March	Entity Relationship and Enhanced ER Modelling	Entity types, relationships, SQL-Schema Definition, constraints, and object modelling.	PD	3
	Relational Data Model	Basic concepts, relational constraints, relational algebra, SQL queries	PD	4
	Database design	ER and EER to relational mapping, functional dependencies, normal forms up to third normal form.	PD	8
March	CMSGCOR02P DBMS (Practical)	Note: MyAccess/MySQL may be used. The following concepts must be introduced to the students: DDL Commands <ul style="list-style-type: none">● Create table, alter table, drop table DML Commands <ul style="list-style-type: none">● Select , update, delete, insert statements● Condition specification using Boolean and comparison operators (and, or, not,=,<>,>,<,>=,<=)● Arithmetic operators and aggregate functions(Count, sum, avg, Min, Max)● Multiple table queries (join on different and same tables)● Nested select statements● Set manipulation using (any, in, contains, all, not in, not contains.	PD	10

April		exists, not exists, union, intersect, minus, etc.) <ul style="list-style-type: none"> • Categorization using group by.....having • Arranging using order by As per syllabus question	DG	10
May - June	CMSGCOR02P DBMS (Practical)	Questions to be performed on above schema 1. Create tables with relevant foreign key constraints 2. Populate the tables with data 3. Perform the following queries on the database : 1. Display all the details of all employees working in the company. 2. Display ssn, lname, fname, address of employees who work in department no 7. 3. Retrieve the birthdate and address of the employee whose name is 'Franklin T. Wong' 4. Retrieve the name and salary of every employee 5. Retrieve all distinct salary values.	PD,DG	6
June -July	Internal Exam	Exam	PD,DC	2

CMSGCOR04T: COMPUTER SYSTEM ARCHITECTURE

DURATION	TOPIC	DETAILS	LECTURES TO BE DELEVERD BY	NO. OF LECTURES
February	Introduction	Logic gates, boolean algebra, combinational circuits, circuit simplification, flip-flops and sequential circuits, decoders, multiplexors, registers, counters and memory units.	PD	12

March	Data Representation and basic Computer Arithmetic	Number systems, complements, fixed and floating point representation, character representation, addition, subtraction, magnitude comparison.	DC	8
End-march to April	Basic Computer Organization and Design	Computer registers, bus system, instruction set, timing and control, instruction cycle, memory reference, input-output and interrupt	PD, DC	18
June	Central Processing Unit	Register organization, arithmetic and logical micro-operations, stack organization, micro programmed control.	DC	10
June	Internal Exam	Exam	PD,DC	2
June to mid-July	Programming the Basic Computer	Instruction formats, addressing modes, instruction codes, machine language, assembly language, input output programming	PD	8
Mid-July to end	Input-output Organization	Peripheral devices, I/O interface, Modes of data transfer, direct memory access.	DC	4

CMSGDSE04:COMPUTER NETWORKS

DURATION	TOPIC	DETAILS	LECTURES TO BE DELEVERD BY	NO. OF LECTURES
February	Introduction	Components of data communication, standards and organizations, Network Classification, Network Topologies ; network protocol; layered network architecture; overview of OSI reference model; overview of TCP/IP protocol suite	DC	20
Mid-March	Physical Layer	cabling, Network Interface Card, Transmission Media Devices- Repeater, Hub, Bridge, Switch, Router, Gateway	DC	8
End-march to April	Data Link Layer	Framing techniques; Error Control; Flow Control Protocols; Shared media protocols - CSMA/CD and CSMA/CA.	PD	18
April end	Central Processing Unit	Virtual Circuits and Datagram approach, IP addressing methods – Subnetting; Routing Algorithms (adaptive and non-adaptive	DC	10
June	Internal Exam	Exam	PD,DC	2
June to mid-July	Network Layer	Transport services, Transport Layer protocol of TCP and UDP	PD	8
Mid-July to end	Application Layer	Application layer protocols and services – Domain name system, HTTP, WWW, telnet, FTP, SMTP	DC	10

July mid	Network Security	:Common Terms, Firewalls, Virtual Private Networks	PD	7
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