

Name of the Assistant Professor- Shama

Month	B.Com CAV (VI Sem) ERP	BCA (IV Sem) RDBMS	BCA (VI Sem) Operating System
Jan	Enterprise: concept and functions; process approach to business; types of information in business; systems approach to information management; integrated data model; ERP: concept, origin and need, reasons of growth of ERP	Relational Model Concepts, Codd's Rules for Relational Model, Functional Dependencies and Normalization:- Purpose, Data Redundancy and Update Anomalies Functional Dependencies:-Full Functional Dependencies and Transitive Decomposition and Normal Forms (1NF, 2NF, 3NF & BCNF).	Process Synchronization: The Critical Section Problem- Single Process/Two Process Solutions; Semaphores- Types, Implementation, Deadlocks and Starvation; Classical Problems of Synchronization- The Bounded Buffer Problem, The Readers and Writers Problem, The Dining Philosophers Problem, Critical Regions, Monitors Directory Structure: Single Level, Two Level, Tree Structures, Acyclic Graph, General Graph; Directory Implementation
Feb	Introduction to ERP technologies; business process reengineering; management information system; decision support system; executive information system.	Relational Algebra:-Selection and Projection, Set Operation, Renaming, Join and Division Relational Calculus: Tuple Relational Calculus and Domain Relational Calculus.	Secondary Storage Structure: Disk Structure, Disk Scheduling: FCFS, SSTF, SCAN, C-SCAN, LOOK;; Disk Management; Swap Space Management Network Operating Systems: Remote Login, RFT; Distributed Operating System: Data Migration, Computation Migration, Process Migration
March	ERP modules: finance, sales and Distribution system; supply chain management manufacturing, inventory management, CRM, etc., vendors for ERP	SQL: Data Definition and data types, SQL Operators, Specifying Constraints in SQL, Basic DDL, DML and DCL commands in SQL, Simple Queries Nested Queries, Tables, Views, Indexes, Aggregate Functions, Clauses	Linux: Introduction, Features, Architecture, Distributions, Accessing Linux System, Login/Logout/Shutting Down, Comparison of Linux with other Operating Systems, Commands in Linux: General-Purpose, File, Directory, Communication, Process, Redirection of I/O, Pipes
April	Implementing ERP solutions Practical : Analyze-Systems approach for institution ERP and MIS	PL/SQL architecture, PL/SQL and SQL*Plus, PL/SQL Basics, Advantages of PL/SQL, The Generic PL/SQL Block: PL/SQL Execution Environment, PL/SQL Character set and Data Types, Control Structure in PL/SQL, Cursors in PL/SQL, Triggers in PL/SQL, Programming using PL/SQL	Permission, File System Components, Standard File System, File System Types, Disk Related Commands Processes in Linux: Introduction, Job Control in Linux using at, batch, cron & time commands The vi editor: Introduction, Modes of vi Editor, Command in vi Editor Shell Programming: Introduction, Shell Variables, Shell Keywords, Operators, Assigning Values to the Variables, I/O in Shell, Control Structures, Creating & Executing Shell Programs in Linux

Shama
31/1/24

Month	B.A CS (III Sem) OS		
Jan	Introduction: operating system, architecture, functions, characteristics, historical evolution, types: Serial batch, multiprogramming, time sharing, real time, distributed and parallel. OS as resource Manager. Computer system structures: I/O structure, storage structure, storage hierarchy. Operating system structure: system components, services, system calls, system programs, system structures	March	Storage Management: memory management of single-user and multiuser operating system, partitioning, swapping, paging and segmentation, virtual memory, Page replacement Algorithms, Thrashing. Process synchronization: critical section problems, semaphores. Mutual exclusion
Feb	Process management: process concepts, process state, process control block, operations, process scheduling, inter process communication. CPU Scheduling: scheduling criteria, levels of scheduling, scheduling algorithms, multiple processor scheduling. Deadlocks: Characterization, methods of handling, deadlock detection, prevention, avoidance, recovery	April	Device and file management: Disk scheduling, Disk structure, Disk management, File Systems: Functions of the system, File access and allocation methods, Directory Systems: Structured Organizations, directory and file protection mechanisms

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3/1/24