



# PRAHLADRAI DALMIA LIONS COLLEGE OF COMMERCE & ECONOMICS

ISO 9001 : 2015 Certified

## **NOTICE**

4-February-2023

### B.Sc.(Information Technology)

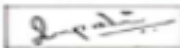
#### F.Y.B.Sc.(I.T.) Sem II, S.Y.B.Sc.(I.T.) Sem IV & T.Y.B.Sc.(I.T.) Sem VI PCT Examination Syllabus FEB - 2023


SR. NO.	NAME OF THE FACULTY	SEMESTER	SUBJECT	MODULE	TOPICS COVERED
1	SANJANA KHEMKA	II	OBJECT ORIENTED PROGRAMMING WITH C++	UNIT 1	Introduction to Object Oriented Programming, Pillars of OOP Starting with C++, Features of C++, Operators in C++
2	RUPALI MISHRA	II	Web Applications Development	UNIT 1	What is Internet? Applications of Internet, E-mail, Telnet, FTP, E-commerce and E-business. Internet Service Providers, Domain Name Server, Internet Address, World Wide Web (WWW): World Wide Web and its Evolution, Uniform Resource Locator (URL), Browsers, Common Features of Browsers, Search Engine, Web Server, HTTP Protocol. HTML Introduction, Formatting Text by using Tags, Using Lists, Creating Hyperlinks Formatting Text and Links using CSS, CSS Selectors, Changing Background, Adding Border
3	SUJAL SHAH	II	NM	Unit 2 and 3	Solution of Equations, Interpolation, Numerical Integration
4	NIYATI KALYANPUR	II	GREEN IT	Unit 1(ch1,2) & Unit 2(ch2)	Unit 2 ch 1: Overview to Green IT: Problems: Toxins, Power Consumption, Equipment Disposal, Company's Carbon Footprint: Measuring, Details, reasons to bother, Plan for the Future, Cost Savings: Hardware, Power. Unit 1 ch 2 Regulating Green IT: Laws, Standards and Protocols Introduction, The Regulatory Environment and IT Manufacturers RoHS, REACH, WEEE, Legislating for GHG Emissions and Energy Use of IT Equipment. Nonregulatory Government Initiatives, Industry Associations and Standards Bodies, Green Building Standards, Green Data Centres, Social Movements and Greenpeace Unit 2 ch 1 Minimizing Power Usage: Power Problems, Monitoring Power Usage, Servers, Low-Cost Options, Reducing Power Use, Data De-Duplication, Virtualization, Management, Bigger Drives, Involving the Utility Company, Low Power Computers, PCs, Linux, Components, Servers, Computer Settings, Storage, Monitors, Power Supplies, Wireless Devices, Software

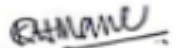
5	GUFRA N QURESHI	II		Unit 1 and 2	<p><b>Unit 1</b>  <b>Ch 1:</b> Microprocessor, microcomputers, and Assembly Language: Microprocessor, Microprocessor Instruction Set and Computer Languages, From Large Computers to Single-Chip Microcontrollers, Applications.  <b>Ch 2:</b> Microprocessor Architecture and Microcomputer System: Microprocessor Architecture and its operation's, Memory, I/O Devices, Microcomputer System, Logic Devices and Interfacing, Microprocessor-Based System Application.  <b>Ch 3:</b> 8085 Microprocessor Architecture and Memory Interface: Introduction, 8085 Microprocessor unit, 8085-Based Microcomputer, Memory Interfacing, Interfacing the 8085 Memory Segment.  <b>Unit 2:</b>  <b>Ch 4:</b> Interfacing of I/O Devices: Basic Interfacing concepts, Interfacing Output Displays, Interfacing Input Devices, Memory Mapped I/O, Testing and Troubleshooting I/O Interfacing Circuits.  <b>Ch 5:</b> Introduction to 8085 Assembly Language Programming: The 8085 Programming Model, Instruction Classification, Instruction, Data and Storage, Writing assembling and Execution of a simple program, Overview of 8085 Instruction Set, Writing and Assembling Program.  <b>Ch 6:</b> Introduction to 8085 Instructions: Data Transfer Operations, Arithmetic Operations, Logic Operation, Branch Operation, Writing Assembly Languages Programs, Debugging a Program.</p>
1	SANJANA KHEMKA	IV	CORE JAVA	UNIT I	<p>Introduction: History, architecture and its components, Java Class File, Java Runtime Environment, The Java Virtual Machine, JVM Components, The Java API, java platform, java development kit, Lambda Expressions, Methods References, Type Annotations, Method Parameter Reflection, setting the path environment variable, Java Compiler And Interpreter, java programs, java applications, main(), public, static, void, string[] args, statements, white space, case sensitivity, identifiers, keywords, comments, braces and code blocks, variables, variable name  Data types: primitive data types, Object Reference Types, Strings, Auto boxing, operators and properties of operators, Arithmetic operators, assignment operators, increment and decrement operator, relational operator, logical operator, bitwise operator, conditional operator.</p>
2	POOJA BENDRE	IV	Embedded system	Unit 1 and unit 2(	<p>Introduction: Embedded Systems and general purpose computers systems, history, classifications, applications and purpose of embedded systems  Core of embedded systems: microprocessors and microcontrollers, RISC and CISC controllers, Big endian and Little endian processors, Application specific ICs, Programmable logic devices, COTS, sensors and actuators, communication interface, embedded firmware, other system components.  Characteristics and quality attributes of embedded systems: Characteristics, operational and non-operational quality attributes. 12 II Embedded Systems – Application and Domain Specific: Application specific – washing machine, domain specific - automotive.</p>

3	ADITI SAVE	IV	Computer Graphics	Unit 1	Introduction to Computer Graphics, Computer Graphics Application and Software, Display Technologies, Line Drawing Algorithms, Circle Drawing Algorithms, Ellipse Drawing Algorithms, Clipping
4	SUJAL SHAH	IV	COST	unit 1 and 2	Averages, Dispersion, Moments, Skewness, Kurtosis
5	FARHAN SHAIKH	IV	SE	UNIT 1	Introduction: What is software engineering? Software Development Life Cycle, Requirements Analysis, Software Design, Coding, Testing, Maintenance etc. Software Requirements: Functional and Non-functional requirements, User Requirements, System Requirements, Interface Specification, Documentation of the software requirements. Software Processes: Process and Project, Component Software Processes. Software Development Process Models. • Waterfall Model. • Prototyping. • Iterative Development. • Rational Unified Process. • The RAD Model • Time boxing Model. Agile software development: Agile methods, Plan-driven and agile development, Extreme programming, Agile project management, Scaling agile methods.
1	SANJANA KHEMKA	VI	PGIS	UNIT 1	The nature of GIS: Some fundamental observations, Defining GIS, GISystems, GIScience and GIApplications, Spatial data and Geoinformation. The real world and representations of it: Models and modelling, Maps, Databases, Spatial databases and spatial analysis Geographic Information and Spatial Database Models and Representations of the real world: Geographic Phenomena: Defining geographic phenomena, types of geographic phenomena, Geographic fields, Geographic objects, Boundaries Computer Representations of Geographic Information: Regular tessellations, irregular tessellations, Vector representations, Topology and Spatial relationships, Scale and Resolution, Representation of Geographic fields, Representation of Geographic objects Organizing and Managing Spatial Data The Temporal Dimension
2	RUPALI MISHRA	VI	SOFTWARE QUALITY ASSURANCE	UNIT I	What is Quality? (Is it a fact or perception?), Definitions of Quality, Core Components of Quality, Quality View, Financial Aspect of Quality, Customers, Suppliers and Processes, Total Quality Management (TQM), Quality Principles of Total Quality Management, Continual (Continuous) Improvement Cycle, Quality in Different Areas, Constraints of Software Product Quality Assessment, Customer is a King, Requirements of a Product, Organisation Culture, Characteristics of Software, Types of Products, Why Software Has Defects? Pillars of Quality Management System, Important Aspects of Quality Management.
3	ADITI SAVE	VI	Business Intelligence	UNIT I	Chapter 1 : Introduction to BI Chapter 2 : Decision Support System

4	TIRUP PARMAR	VI	Cyber LAw	Unit 1	<p><b>CH 1 - Power of Arrest Without Warrant Under the IT Act, 2000:</b> A Critique, Crimes of this Millennium, Section 80 of the IT Act, 2000 – A Weapon or a Farce? Forgetting the Line Between Cognizable and Non-Cognizable Offences, Necessity of Arrest without Warrant from Any Place, Public or Otherwise, Check and Balances Against Arbitrary Arrests, Arrest for “About to Commit” an Offence Under the IT Act: A Tribute to Draco, Arrest, But NO Punishment!</p> <p><b>CH 2 - Cyber Crime and Criminal Justice: Penalties, Adjudication and Appeals Under the IT Act, 2000:</b> Concept of “Cyber Crime “ and the IT Act , 2000, Hacking, Teenage Web Vandals, Cyber Fraud and Cyber Cheating, Virus on the Internet, Defamation, Harassment and E-mail Abuse, Cyber Pornography, Other IT Act Offences, Monetary Penalties, Adjudication and Appeals Under IT Act , 2000, Network Service Providers, Jurisdiction and Cyber Crime, Nature of Cyber Criminality, Strategies to Tackle Cyber Crime and Trends, Criminal Justice in India and Implications on Cyber Crime.</p>
5	FARHAN SHAIKH	VI	SIC	UNIT 1	<p>Information Security Overview : The Importance of Information Protection, The Evolution of Information Security, Justifying Security Investment, Security Methodology, How to Build a Security Program, The Impossible Job, The Weakest Link, Strategy and Tactics, Business Processes vs. Technical Controls. Risk Analysis: Threat Definition, Types of Attacks, Risk Analysis. Secure Design Principles: The CIA Triad and Other Models, Defense Models, Zones of Trust, Best Practices for Network Defense.</p>

  
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**Dr. Kiran Mane**  
**I/C Principal**

**DI/N-STD/GEN/00**