

Indira Gandhi National College, Ladwa
Lesson Plan

Name of Teacher: Ms. Shikha
Subject: Computer Sc.
Semester: I

Class: B.A. I / B.Sc. I
Paper I: Problem Solving through C
Session: 2026-2027

Month	Topic / Chapter Covered	Other activities
AUGUST	Overview of C: History, Importance, Structure of C Program, Character Set, Constants and Variables, Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant. Input/output: Formatted I/O Function-, Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), Output functions viz. printf(), putchar(), puts().	
SEPTEMBER	Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators Operator Hierarchy; Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement, if- else statement, nested if statement, else-if ladder, switch and break statement, goto statement, Looping Statements: for, while, and do- while loop, jumps in loops.	Assignment-I Class Test Problems Discussion
OCTOBER	Arrays: One Dimensional arrays - Declaration, Initialization and Memory representation; Two Dimensional arrays -Declaration, Initialization and Memory representation. Functions: definition, prototype, function call, passing argument of function: call by value; call by reference, recursive functions. Strings: Declaration and Initialization, String I/O, Array of Strings, String Manipulation Functions: String Length, Copy, Compare, Concatenate etc., Search for a Substring.	Assignment-II Problems Discussion
NOVEMBER	Pointers in C: Declaring and initializing pointers, accessing address and value of variables using pointers; Pointers and Arrays. User defined data types: Structures - Definition, Advantages of Structure, declaring structure variables, accessing structure members, Structure members initialization, Array of Structures; Unions -Union definition; difference between Structure and Union.	Revision, Test Series & Problems discussion

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Name of Teacher: Ms. Shikha
Subject: Computer Sc.
Semester: I

Class: B.A. I / B.Sc./B.COM I
Paper I: Office and Spread Sheet Tools Learning
Session: 2026-2027

Month	Topic / Chapter Covered	Other activities
AUGUST	Operating System - Definition, Functions, Types of Operating System, Basics of Popular Operating Systems, The User Interface, Exploring Computer, Icons, taskbar, desktop, Using Menu and Menu- selection, managing files and folders, Control panel – display properties, add/remove software and hardware, Common utilities.	
SEPTEMBER	Word Processing - Introduction to Word Processing, Menus, Creating, Editing & Formatting Document, Spell Checking, Printing, Views, Tables, Word Art, Mail Merge, Macros, Inserting hyperlinks, Searching for text, Modifying page setup, Applying document themes, Applying document style sets, Inserting headers and footers.	Assignment-I Class Test Problems Discussion
OCTOBER	Spread Sheet: Elements of Electronics Spread Sheet, Applications, Creating and Opening of SpreadSheet, Menus, Manipulation of cells: Enter texts numbers and dates, Cell Height and Widths, copying of cells, Mathematical, Statistical and Financial function, Drawing different types of charts, Sort and Filter Data.	Assignment-II Problems Discussion
NOVEMBER	Presentation Software: Creating, Modifying and enhancing a presentation, Type of presentation views, Using sound, Animation, Working with Objects, Printing.	Revision, Test Series & Problems discussion

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Name of Teacher: Ms. Shikha
Subject: Computer Sc.
Semester: II

Class: B.A. I / B.Sc. I
Paper I: Web Development
Session: 2026-2027

Month	Topic / Chapter Covered	Other activities
JANUARY	Introduction to Internet and World Wide Web (WWW); Evolution and History of World Wide Web, Web Pages and Contents, Web Clients, Web Servers, Web Browsers; Hypertext Transfer Protocol, URLs; Searching, Search Engines and Search Tools. Web Publishing: Hosting website; Internet Service Provider; Planning and designing website; Web Graphics Design, Steps For Developing website	
FEBRUARY	Creating a Website and Introduction to Markup Languages (HTML and DHTML), HTML Document Features & Fundamentals, HTML Elements, Creating Links; Headers; Text styles; Text Structuring; Text colour and Background; Formatting text; Page layouts, Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts; Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons; Check Boxes; Text Boxes, HTML5.	Assignment-I Class Test Problems Discussion
MARCH	Introduction to CSS (Cascading Style Sheets): Features, Core Syntax, Types, Style Sheets and HTML, Style Rule Cascading and Inheritance, Text Properties, CSS Box Model, Normal Flow Box Layout, Positioning, and other useful Style Properties; Features of CSS3.	Assignment-II Problems Discussion
APRIL	The Nature of JavaScript: Evolution of Scripting Languages, JavaScript- Definition, Programming for Non-Programmers, Introduction to Client-Side Programming, Enhancing HTML Documents with JavaScript. Static and Dynamic web pages.	Revision, Test Series & Problems discussion

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Lesson Plan

Name of Teacher: Ms. Shikha	Class: B.A. I / B.Sc./B.Com. I
Subject: Computer Sc. (SEC)	Paper: Cloud Computing Skills (B23-CSE-201)
Semester: II	Session: 2026-2027

Month	Topic / Chapter Covered	Other activities
JANUARY	Basic Concepts of Cloud Computing Computer Network Basics. Concepts of Distributed Systems. Concepts of Cloud Computing and its Necessity. Cloud Service Providers in use and their Significance.	
FEBRUARY	Cloud Infrastructure Cloud Pros and Cons. Cloud Delivery Models. Cloud Deployment Models.	Assignment-I Class Test Problems Discussion
MARCH	Cloud Storage Management Concept of Virtualization and Load Balancing. Overview on Virtualization used for Enterprise Solutions. Key Challenges in managing Information. Identifying the problems of scale and management in big data.	Assignment-II Problems Discussion
APRIL	Building Cloud Networks Designing and Implementing a Data Center-Based Cloud Installing Open-Source Cloud service. Amazon Web Services (AWS). Google Cloud Platform.	Revision & Problems discussion

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Lesson Plan

Name of Teacher: Ms. Shikha

Class: B.A. I / B.Sc. II

Subject: Computer Sc.

PAPER I: Programming Using Python

Semester: III

Session: 2026-2027

Month	Topic / Chapter Covered	Other activities
August	Introduction to Python: setting up Python environment, writing and executing Python scripts, variables and data types, input/output, type casting, comments, operators (arithmetic, relational, logical, assignment, bitwise, identity, membership)	
September	Control structures: conditional statements (if, if-else, elif), loops (for, while), loop control (break, continue, pass), range and enumerate functions, nested loops, basic problem-solving using loop.	Assignment-I Class Test Problems Discussion
October	Functions: built-in functions, user-defined functions, function arguments and return values, scope and lifetime of variables, recursion, lambda functions, modules and importing, creating and using custom modules	Assignment-II Problems Discussion
November	Data structures in Python: lists, tuples, sets, dictionaries, list/set/dictionary comprehensions, file handling: reading and writing text and CSV files, exception handling: try, except, finally, raising exceptions	Revision, Test Series & Problems discussion

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Lesson Plan

Name of Teacher: Ms. Shikha

Class: B.A. / B.Sc/B.COM II

Subject: Computer Sc. (SEC)

PAPER I: Data Management

Semester: III

Session: 2026-2027

Month	Topic / Chapter Covered	Other activities
August	Database Management System – Introduction and Purpose, Database Architectures: Centralized, Client-Server, Parallel, Distributed, Web based system: Web architecture (2 tier, 3 tier, N-tier Architecture) Database Storage Structures: Introduction, Indexing, Hashing, Data Dictionary.	Problems Discussion
September	Data Models: Introduction to various data models, Cardinality Ratio & Relationships, Representation of entities, attributes, relationship attributes, relationship set, Generalization, aggregation, Structure of relational Database and different types of keys, Codd's rules and Relational data model	Assignment-I Class Test Problems Discussion
October	Relational Database design: Basic System Development Life Cycle, Database Design – ER to Relational, Functional dependencies, Normalization, Normal forms based on primary keys (1NF, 2NF, 3NF)	Assignment-II Problems Discussion
November	SQL queries: SQL data definition, datatypes, specifying constraints, Queries for retrieval, insertion, deletion, updation, introduction to views.	Revision, Test Series & Problems discussion

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Lesson Plan

Name of Teacher: Ms. Shikha	Class: B.A./B.SC./B.COM III
Subject: Computer Sc. (Major)	Paper: Computer Networks (B23-CSE-601)
Semester: VI	Session: 2026-27

Month	Topic / Chapter Covered	Other activities
JANUARY	Introduction to Computer Networks: Overview of computer networks, types of networks (LAN, WAN, MAN), network topologies, and network models (OSI and TCP/IP). Physical Layer: Data transmission methods, signal encoding techniques, transmission media, and network devices (hubs, switches, routers).	Problems Discussion
FEBURARY	Data Link Layer: Error detection and correction, flow control, MAC protocols, Ethernet, and switching. Network Layer: IP addressing and subnetting, routing algorithms, IPv4 vs. IPv6, and ARP.	Assignment-I Class Test Problems Discussion
MARCH	Transport Layer: Transport layer protocols (TCP, UDP), congestion control, and quality of service (QoS). Application Layer: Application layer protocols (HTTP, FTP, DNS, SMTP), web services, and network applications.	Assignment-II Problems Discussion
APRIL	Network Security: Fundamentals of network security, cryptography, firewalls, VPNs, and intrusion detection systems (IDS). Wireless Networks: Wireless communication principles, Wi-Fi, Bluetooth, mobile networks, and ad hoc networks.	Revision & Problems discussion