POST GRADUATE GOVT. COLLEGE, SECTOR-46, CHANDIGARH

WEEKLY TEACHING SCHEDULE (2018-19) Odd Semester

CLASS: BCA-2nd

Department: BCA

SUBJECT:CONM

Sr. No.	Dates (From- Upto)	Topics to be covered
Week 1	24th July to 28th July, 2018	Data Representation and Computer Arithmetic: Introduction, Concept of Exact and Approximate Numbers, Concept of Significant digits, Representation of Numbers in Memory, Storage of Integer Numbers
Week 2	30th July to 04th August, 2018	Signed Representation, 1's Complement Representation, 2's Complement Representation, Floating Point Numbers and their storage,
Week 3	6th August to 11th August, 2018	Floating Point Arithmetic, Normalization and their consequences, Errors, Measures of Accuracy: Absolute Error, Relative Error and Percentage Error
Week 4	13th August to 18th August, 2018	Error types: Data Errors, Truncation Errors, Round-Off Errors, Computational Errors, Rules, Relationship between Relative Error and Significant digits
Week 5	20th August to 25th August, 2018	Error Propagation: Error Propagation in Addition Operation, Subtraction Operation, Multiplication Operation and Division Operation.
Week 6	27th August to 1st September, 2018	Types of Non-Linear Equations: Polynomial Equations, Transcendental Equations, Methods of Finding Solutions of NonLinear equations: Direct Method, Iterative Method.
Week 7	3rd September to 8th September, 2018	Iterative Methods: Bisection Method, False-Position Method
Week 8	10th September to 15th September, 2018	Secant Method, Newton - Raphson Methods, Zeros of a polynomial using Birge – Vieta Method.
Week 9	17th September to 22nd September, 2018	Convergence of Iterative Methods, Comparison between Iterative Methods.
Week 10	24th September to 29th September, 2018	Solution of Simultaneous Linear Equations using Direct and Iterative Methods: Direct Methods: Gauss – Elimination Method,
Week 11	1st October to 6th October, 2018	Gauss-Jordan Method, Concept of Pivoting, Iterative Method: Gauss-Seidal Method.

Week 12	8th October to 13th October, 2018	Introduction, Lagrange Interpolation, Inverse Interpolation, Finite Differences: Forward Differences, Backward Differences,
Week 13	15th October to 20th October, 2018	Divided Differences, Difference Tables: Forward Difference Table, Backward Difference
Mid Semester Test – 22nd October, 2018 to 31st October, 2018		
Week 14	1st November to 3rd November, 2018	Table, Divided Difference Table, Observations regarding Difference Tables, Newton's Method of Interpolation:
Week 15	5th November to 10th November, 2018	Newton' s Forward Difference Interpolation Formula, Newton' s Backward Difference Interpolation Formula, Newton' s Divided Difference Interpolation Formula. Introduction, Newton-Cotes Integration Formulae: Trapezoidal Rule, Simpson's 1/3rd Rule, Simpson's 3/8th Rule
Week 16	12th November to 17th November, 2018	Approximation: Approximation of functions: Taylor Series Representation, Chebyshev Polynomials.
Week 17	19th November to 24th November, 2018	Solution of Ordinary Differential Equations: Introduction, Euler's Method,
Week 18	26th November to 1st November, 2018	Runga–Kutta Methods: 2nd order & 4th order, Predictor Corrector Methods: Modified Euler's Method.

POST GRADUATE GOVT. COLLEGE, SECTOR-46, CHANDIGARH

WEEKLY TEACHING SCHEDULE (2018-19) Odd Semester

CLASS:BCA-2nd

Department: BCA

SUBJECT: ISDI

Sr. No.	Dates (From- Upto)	Topics to be covered
Week 1	24th July to 28th July, 2018	Systems Concepts and Information Systems Environment: Definition and characteristics of a system. Elements of a system
Week 2	30th July to 04th August, 2018	Boundaries and interface. Types of systems: Physical or Abstract Systems,
Week 3	6th August to 11th August, 2018	Open and Closed System, Man - made information systems.
Week 4	13th August to 18th August, 2018	The System Development Life Cycle: Introduction to various phases- Recognition of Need, Feasibility Study,
Week 5	20th August to 25th August, 2018	Analysis, Design, Implementation, Post–Implementation and Maintenance.
Week 6	27th August to 1st September, 2018	The Role of System Analyst: Skills of a System Analyst, various roles of the Analyst.
Week 7	3rd September to 8th September, 2018	System Planning and the Initial Investigation: Bases for planning in system analysis,
Week 8	10th September to 15th September, 2018	Initial investigation, determining the users information requirements, Problem definition and Project Initiation,
Week 9	17th September to 22nd September, 2018	Background Analysis, Fact Finding, Fact Analysis, Determination of Feasibility.

Week 10	24th September to 29th September, 2018	Information Gathering: Introduction, Information Gathering tools: Review of Literature,
Week 11	1st October to 6th October, 2018	Procedures and forms. On -site observation. Interviews and questionnaires.
Week 12	8th October to 13th October, 2018	Feasibility Study: System Performance- statement of Constraints,
Week 13	15th October to 20th October, 2018	Identification of Specific System Objectives, description of Outputs.
Mid Semester Test – 22nd October, 2018 to 31st October, 2018		
Week 14	1st November to 3rd November, 2018	Implementation and Software Maintenance: Introduction,
Week 15	5th November to 10th November, 2018	Conversion- Activity network for Conversion, File Conversion
Week 16	12th November to 17th November, 2018	,User Training: Elements of user Training Post implementation review.
Week 17	19th November to 24th November, 2018	Software Maintenance - Primary activities of a Maintenance Procedure
Week 18	26th November to 1st November, 2018	Reducing Maintenance Costs.

Sr. No.	Dates (From- Upto)	Topics to be covered
Week 1	14/01/2019 to 19/01/2019	Basic Concepts: A Historical perspective, File Systems vs. DBMS, Characteristics of the Data Base Approach, Abstraction and Data Integration,
Week 2	21/01/2019 to 26/01/2019	Database users, Advantages and Disadvantages of DBMS, Implication of Database approach. Data Base Systems Concepts and Architecture: Schemas and Instances,
Week 3	28/01/2019 to 02/02/2019	DBMS architecture and Data Independence, Data base languages & Interfaces, DBMS functions and component modules.
Week 4	04/02/2019 to 09/02/2019	Entity Relationship Model: Entity Types, Entity Sets, Attributes & Keys, Relationships, Relationship Types, Roles and Structural Constraints,
Week 5	11/02/2019 to 16/02/2019	Design issues, weak entity types, ER Diagrams. Design of an E-R Database Schema, Reduction of an E-R Schema to Tables.
Week 6	18/02/2019 to 23/02/2019	Relational Data Model : Relational model concepts, Integrity constraints over Relations, Relational Algebra - Basic Operations.
Week 7	25/02/2019 to 02/03/2019	Conventional Data Models : An overview of Network and Hierarchical Data Models. Relational Data Base Design : Functional Dependencies, Decomposition, Desirable properties of decomposition, Normal forms based on primary keys (1 NF, 2 NF, 3 NF and BC NF).
Week 8	4/03/2019 to 5/03/2019	RDBMS: Terminology, The 12 Rules (Codd's Rule) for an RDBMS.
Mid Semester Test – 06/03/2019 to 14/03/2019		
Week 9	15/03/2019 to 16/03/2019	Understanding SQL-1: Data Types, Creating Tables, Creating a Table with data from Another table, Inserting Values into a Table, Updating Column(s) of a Table,
Week 10	18/03/2019 to 23/03/2019	Deleting Row(s) from a Table, Dropping a Column,

		Querying database tables, Conditional retrieval of rows, Working with Null Values, Matching a pattern from a table,
Week 11	25/03/2019 to 30/03/2019	ordering the result of a:40 Query Aggregate Functions, Grouping the Result of a Query, creation and deletion of Views,
Week 12	01/04/2019 to 06/04/2019	Managing privileges with Grant and Revoke Command, COMMIT and ROLLBACK, Functions: Character Functions, Date Functions, Group Functions
Week 13	08/04/2019 to 13/04/2019	Understanding SQL-II: Querying Multiple Tables using Equi-Joins, Cartesian Joins, Outer Joins, Self-Joins, SET Operators: Union, Intersect, Minus; Introduction to Nested Queries
Week 14	15/04/2019 to 20/04/2019	PL/SQL: Introduction to PL/SQL, The Advantage of PL/SQL, PL/SQL Block Structure, PL/SQL Architecture, Fundamentals of PL/SQL, PL/SQL Data Types, Variables and Constants,
Week 15	22/04/2019 to 27/04/2019	Scope and Visibility of a Variable, Assignments and Expressions, Operator Precedence, Conditional and Iterative Control, Cursor Management in PL/SQL, Implicit/explicit Cursor Attributes,
Week 16	29/04/2019 to 03/05/2019	Exception Handling in PL/SQL; Predefined Exceptions, User Defined Exceptions, Database Trigger, types of triggers, dropping triggers, storage for triggers.

POST GRADUATE GOVT. COLLEGE, SECTOR-46, CHANDIGARH

WEEKLY TEACHING SCHEDULE (2018-19) Even Semester

CLASS: BCA 2nd

Department:BCA

SUBJECT: DBMS

Sr. No.	Dates (From- Upto)	Topics to be covered
Week 1	14/01/2019 to 19/01/2019	Operating Systems (OS): Introduction, its needs and services, Types of OS: Multi-user, Multitasking, Multiprocessing and Real time Operating Systems,
Week 2	21/01/2019 to 26/01/2019	Parallel systems, Distributed systems Process Management: Introduction to Process, PCB, Process States,
Week 3	28/01/2019 to 02/02/2019	CPU Scheduling: Scheduling Criteria and Algorithms: FCFS, SJF, Priority, Round Robin, Multilevel Queue Scheduling, Multilevel Feedback Queue Scheduling
Week 4	04/02/2019 to 09/02/2019	Deadlocks: Necessary and sufficient conditions for Deadlocks, Introduction to methods for handling deadlocks, deadlock detection and recovery Memory Management: Logical vs Physical address space,
Week 5	11/02/2019 to 16/02/2019	Swapping, Introduction to Paging, Segmentation, Virtual Memory-Demand paging, Introduction to Page Replacement algorithms: FIFO, Optimal Page replacement and LRU
Week 6	18/02/2019 to 23/02/2019	Introduction to Linux: Linux's shell, Kernel, Features of Linux, History, Minimum system requirements, Boot and Root disks ,
Week 7	25/02/2019 to 02/03/2019	Starting and stopping Linux system, passwords, logging in and out, terminal Handling commands: who, Understanding wildcards, Environment variables.
Week 8	4/03/2019 to 5/03/2019	Understanding I/O Redirection and Piping: Introduction, cut, paste, sort, tee; Introduction to Regular Expressions and grep
Mid Semester Test – 06/03/2019 to 14/03/2019		
Week 9	15/03/2019 to 16/03/2019	Using file system: Introduction to common types

		of files, Filenames,
Week 10	18/03/2019 to 23/03/2019	Introduction to different types of directories: Parent, Subdirectory, Home directory; rules to name a directory, Important directories in Linux File System,
Week 11	25/03/2019 to 30/03/2019	Absolute and relative filenames, creating files and directories, listing files (ls), pwd, moving and copying files (mv, cp), moving directories, Removing files and directories,
Week 12	01/04/2019 to 06/04/2019	using wildcards with files and directories, File and directory permissions using relative and absolute methods, Changing group ownership, umask settings
Week 13	08/04/2019 to 13/04/2019	Process Management: Types of processes, ps, bg, fg, nice, kill.
Week 14	15/04/2019 to 20/04/2019	Understanding System Administration activities: Superuser (su) command, Taking backups using tar, Managing disk space
Week 15	22/04/2019 to 27/04/2019	Mounting and Un-mounting file system, Managing users, Managing printers with lpd, mknod, lpc, lpq, lprm.
Week 16	29/04/2019 to 03/05/2019	Vi editor: starting vi, vi modes, inserting text, quitting vi, deleting text, copying and moving text, searching and replacing text.

POST GRADUATE GOVT. COLLEGE, SECTOR-46, CHANDIGARH

WEEKLY TEACHING SCHEDULE (2018-19) Even Semester

CLASS: BCA 2nd

Department: BCA

SUBJECT: LINUX

POST GRADUATE GOVT. COLLEGE, SECTOR-46, CHANDIGARH

WEEKLY TEACHING SCHEDULE (2018-19) Even Semester

CLASS: BCA 2nd

Sr. No.	Dates (From- Upto)	Topics to be covered
Week 1	14/01/2019 to 19/01/2019	Introduction to project and project management, role of a project manager in project management, a system view of project management
Week 2	21/01/2019 to 26/01/2019	Stakeholders of Project, Project phases and product life cycles, Evolution of software economics, Improving software economics: reducing product size
Week 3	28/01/2019 to 02/02/2019	software processes, team effectiveness, automation through software environments, Principles of modern software management.
Week 4	04/02/2019 to 09/02/2019	Project Management Framework, Software Tools for Project Management
Week 5	11/02/2019 to 16/02/2019	, Issues in Project Staff Acquisition and Team formation and Development
Week 6	18/02/2019 to 23/02/2019	. Model based software architectures, Workflows of the process, Checkpoints of the process.
Week 7	25/02/2019 to 02/03/2019	Integration Management: Project selection, project management plans, project execution,
Week 8	4/03/2019 to 5/03/2019	project monitoring and controlling, integrated change control
Mid Semester Test – 06/03/2019 to 14/03/2019		
Week 9	15/03/2019 to 16/03/2019	Scope Management: project scope statement, Work breakdown structures
Week 10	18/03/2019 to 23/03/2019	Iterative process planning, Project organizations and responsibilities, Process automation
Week 11	25/03/2019 to 30/03/2019	Time Management; Importance of Project Schedules
Week 12	01/04/2019 to 06/04/2019	Sequencing and Scheduling Activity, Project Network Diagrams, PERT/CPM, Gantt charts,
Week 13	08/04/2019 to 13/04/2019	Critical chain scheduling. Cost Management: Project Cost Management - Importance and Principles of Project Cost Management
Week 14	15/04/2019 to 20/04/2019	Resource Planning, Cost Estimating Techniques
Week 15	22/04/2019 to 27/04/2019	Expert Judgment, Estimating by Analogy
Week 16	29/04/2019 to 03/05/2019	COCOMO Model, Cost Budgeting and Control

Department:BCA

SUBJECT: SPM