

I.B. (PG) COLLEGE, PANIPAT
LESSON PLAN
SESSION 2023-24 (05.08.2023 to 24.11.2023)

Weekly Lesson Plan (Odd Semester)

UG (1st / III / V - Semester)

BCA 2nd year (Computer Architecture)

Name of the Teachers (Section Wise) : Anju

WEEK	DATE	TOPICS
1	August (5)	
SUNDAY - 06.08.2023		
2	August (7-12)	basic computer organisation and design:- instruction code, computer register (revision) computer instruction.
SUNDAY - 13.08.2023		
3	August (14-19)	timing and control, instruction cycle, memory reference instruction, input- output interrupt, memory reference instruction,
HOLIDAY - 15.08.2023 - INDEPENDENCE DAY		
SUNDAY - 20.08.2023		
4	August (21-26)	design of basic computer, design of accumulator (test)
SUNDAY - 27.08.2023		
5	August (28-29, 31) September (1-2)	register transfer and microoperation: register transfer language register transfer bus and memory (revision)
HOLIDAY - 30.08.2023 - RAKSHABANDHAN		
SUNDAY - 03.09.2023		
6	September (4-5, 7-9)	arithmetic operation logic operations, shift microoperations,
HOLIDAY - 06.09.2023 - JANAMASHTMI		
SUNDAY - 10.09.2023		
7	September (11-16)	arithmetic logic shift unit, microprogrammed control. memory; address sequencing microprogram sequencer design of control unit
SUNDAY - 17.09.2023		
8	September (18-22)	cpu:- general register organization , stack organization instruction format, addressing mode, data transfer and manipulation

HOLIDAY 23.09.2023 - SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY		
SUNDAY - 24.09.2023		
9	September (25-30)	programe control,
		program interrupt
		RISC,CISC
SUNDAY - 01.10.2023		
HOLIDAY - 02.10.2023 MAHATMA GANDHI JAYANTI		
10	October (3-7)	memory organization : memory hierarchy,
		Auxiliary memory associative memory,
		interleaved memory,
SUNDAY - 08.10.2023		
11	October (9-14)	cache memory virtual memory, memory management
		associative memory,
		memory managemen
SUNDAY - 15.10.2023 & HOLIDAY (MAHARAJA AGRASEN JAYANTI)		
12	October (16-21)	cache memory virtual memory, memory managemen
		hardware management
		input- output organization
SUNDAY - 22.10.2023		
13	October (23, 25-27)	periphereal device
		input- output interface
		addressing mode
HOLIDAY - 24.10.2023 DUSSEHRA		
HOLIDAY 28.10.2023 - MAHARISHI VALMIKI JAYANTI		
SUNDAY -29.10.2023		
14	October (30-31) November (2-4)	Asynchronous data transfer(revision)
		mode of transfer
		(assignment)
HOLIDAY 01.11.2023 - HARYANA DAY		
15	November (6-9)	
Diwali Break - 10.11.2023 to 16.11.2023		
16	November (17-18)	direct memory access
		(test)
SUNDAY - 19.11.2023		
17	November (20-24)	
25.11.2023 - Examinations		

I.B. (PG) COLLEGE, PANIPAT**LESSON PLAN****SESSION 2023-24 (05.08.2023 to 24.11.2023)****Weekly Lesson Plan (Odd Semester)****UG (1st / III / V - Semester) I****Name of the Paper:- OBJECT ORIENTED PROGRAMMING USING 'C++'****Class: BCA II****Name of the Teachers (Section Wise) : Prof. Vinay Bharti**

WEEK	DATE	TOPICS
1	August (5)	
SUNDAY - 06.08.2023		
2	August (7-12)	Object oriented Programming: Object-Oriented programming features and benefits
		Object-Oriented features of C++, Class and Objects
		Data Hiding & Encapsulation, Structures
SUNDAY - 13.08.2023		
3	August (14-19)	Structure
		Data members and Member functions, Scope resolution operator and its significance
HOLIDAY - 15.08.2023 - INDEPENDENCE DAY		
SUNDAY - 20.08.2023		
4	August (21-26)	Static Data Members, Static member functions,
		Nested and Local Class
		Accessing Members of Class and Structure and its implementation
SUNDAY - 27.08.2023		
5	August (28-29, 31) September (1-2)	Constructor, Initialization using constructor
		Default, Parameterized constructor
		Copy Constructors, Constructor overloading
HOLIDAY - 30.08.2023 - RAKSHABANDHAN		
SUNDAY - 03.09.2023		
6	September (4-5, 7-9)	Default Values to Parameters, Destructors
		Assignment I
HOLIDAY - 06.09.2023 - JANAMASHTMI		
SUNDAY - 10.09.2023		
7	September (11-16)	Console I/O: Hierarchy of Console Stream Classes
		Unformatted I/O Operations
		Formatted I/O Operations.
SUNDAY - 17.09.2023		
8	September (18-22)	Manipulators, Friend Function
		Array of Objects, Passing and Returning Objects to Functions
		String Handling in C++

HOLIDAY 23.09.2023 - SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY**SUNDAY - 24.09.2023**

9	September (25-30)	String Handling in C++
		Dynamic Memory Management: Pointers, new and delete Operator,
		Array of Pointers to Objects, this Pointer

SUNDAY - 01.10.2023**HOLIDAY - 02.10.2023 MAHATMA GANDHI JAYANTI**

10	October (3-7)	Query session
		Conditional Test
		Passing Parameters to Functions by Reference & pointers

SUNDAY - 08.10.2023

11	October (9-14)	Operators in C++
		Precedence and Associativity Rules
		Unary Operator Overloading

SUNDAY - 15.10.2023 & HOLIDAY (MAHARAJA AGRASEN JAYANTI)

12	October (16-21)	Concatenate etc., Search for a Substring,
		Class Test
		Assignment II

SUNDAY - 22.10.2023

13	October (23, 25-27)	Bibary Operator Overloading
		Bibary Operator Overloading

HOLIDAY - 24.10.2023 DUSSEHRA**HOLIDAY 28.10.2023 - MAHARISHI VALMIKI JAYANTI****SUNDAY -29.10.2023**

14	October (30-31) November (2-4)	Function Overloading, Inline Functions
		Revision

HOLIDAY 01.11.2023 - HARYANA DAY

15	November (6-9)	Revision
		Revision
		Revision

Diwali Break - 10.11.2023 to 16.11.2023

16	November (17-18)	

SUNDAY - 19.11.2023

17	November (20-24)	Revision
		Revision
		Revision

25.11.2023 - Examinations

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Weekly Lesson Plan (Odd Semester)

UG (1st / III / V - Semester)

Name of the Paper:-**DATABASE MANAGEMENT**

Class: **BCA II**

Name of the Teachers (Section Wise) : **NEETU MANOCHA, KARUNA**

WEEK	DATE	TOPICS
1	August (5)	
SUNDAY - 06.08.2023		
2	August (7-12)	Basic Concepts – Data, Information, Records and files Traditional file – based Systems-File Based Approach-Limitations of File Based Approach
SUNDAY - 13.08.2023		
3	August (14-19)	Database Approach-Characteristics of Database Approach, Database Management System (DBMS) Components of DBMS Environment, DBMS Functions and Components Advantages and Disadvantages of DBMS, Roles in the Database Environment - Data and Database Administrator
HOLIDAY - 15.08.2023 - INDEPENDENCE DAY		
SUNDAY - 20.08.2023		
4	August (21-26)	Database Designers, Applications Developers and Users Database System Architecture – Three Levels of Architecture External, Conceptual and Internal Levels, Schemas, Mappings and Instances
SUNDAY - 27.08.2023		
5	August (28-29, 31) September (1-2)	Data Independence – Logical and Physical Data Independence, Classification of Database Management System Centralized and Client Server architecture to DBMS. UNIT CONTD..
HOLIDAY - 30.08.2023 - RAKSHABANDHAN		
SUNDAY - 03.09.2023		
6	September (4-5, 7-9)	Data Models: Records- based Data Models CONTD.. CONTD..
HOLIDAY - 06.09.2023 - JANAMASHTMI		
SUNDAY - 10.09.2023		
7	September (11-16)	Object-based Data Models, Physical Data Models and Conceptual Modeling Entity-Relationship Model – Entity Types, Entity Sets, Attributes Relationship Types CONTD..
SUNDAY - 17.09.2023		
8	September (18-22)	QUERY PROBLEMS Relationship Instances and ER Diagrams ASSIGNMAENT -1

HOLIDAY 23.09.2023 - SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY		
SUNDAY - 24.09.2023		
9	September (25-30)	
		Relational Data Model:-Brief History
		CONTD..
SUNDAY - 01.10.2023		
HOLIDAY - 02.10.2023 MAHATMA GANDHI JAYANTI		
10	October (3-7)	
		Terminology in Relational Data Structure
		Keys, Domains
		CONTD..
SUNDAY - 08.10.2023		
11	October (9-14)	
		Integrity Constraints over Relations
		CONTD..
		CONTD..
SUNDAY - 15.10.2023 & HOLIDAY (MAHARAJA AGRASEN JAYANTI)		
12	October (16-21)	
		CONDITIONAL TEST
		QUERY ON PROBLEMS
		Basic Concepts of Hierarchical DATA MODEL
SUNDAY - 22.10.2023		
13	October (23, 25-27)	
		Network Data Model
		CONTD..
		REVISION
HOLIDAY - 24.10.2023 DUSSEHRA		
HOLIDAY 28.10.2023 - MAHARISHI VALMIKI JAYANTI		
SUNDAY -29.10.2023		
14	October (30-31) November (2-4)	
		ASSIGNMENT -2
		Base Tables and Views
HOLIDAY 01.11.2023 - HARYANA DAY		
15	November (6-9)	
		Relations, Properties of Relations
Diwali Break - 10.11.2023 to 16.11.2023		
16	November (17-18)	Relations, Properties of Relations
		CONTD..
SUNDAY - 19.11.2023		
17	November (20-24)	QUERY ON PROBLEMS
		QUERY ON PROBLEMS
		QUERY ON PROBLEMS
		QUERY ON PROBLEMS
		QUERY ON PROBLEMS
25.11.2023 - Examinations		

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UG (1st / III / V - Semester)

Name of the Paper:- SOFTWARE ENGINEERING

Class: BCA II

Name of the Teachers (Section Wise) : MILAN

WEEK	DATE	TOPICS
1	August (5)	
SUNDAY - 06.08.2023		
2	August (7-12)	Introduction: Program vs. Software, Software Engineering, Programming paradigms, Software Crisis – problem and causes
SUNDAY - 13.08.2023		
3	August (14-19)	Phases in Software development: Requirement Analysis Software Design, Coding, Testing
HOLIDAY - 15.08.2023 - INDEPENDENCE DAY		
SUNDAY - 20.08.2023		
4	August (21-26)	Maintenance, Software Development Process Models Waterfall, Prototype, Evolutionary and Spiral models, Role of Metrics. Assignment
SUNDAY - 27.08.2023		
5	August (28-29, 31) September (1-2)	Feasibility Study, Software Requirement Analysis and Specifications: SRS, Need for SRS, Characteristics of an SRS
HOLIDAY - 30.08.2023 - RAKSHABANDHAN		
SUNDAY - 03.09.2023		
6	September (4-5, 7-9)	Components of an SRS, Problem Analysis Information gathering tools
HOLIDAY - 06.09.2023 - JANAMASHTMI		
SUNDAY - 10.09.2023		
7	September (11-16)	Organizing and structuring information, Requirement specification validation and Verification. . SCM conditinal
SUNDAY - 17.09.2023		
8	September (18-22)	Structured Analysis and Tools: Data Flow Diagram, Data Dictionary, Decision table, Decision tress, Structured English, Entity-Relationship diagrams, Cohesion and Coupling.

HOLIDAY 23.09.2023 - SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY		
SUNDAY - 24.09.2023		
9	September (25-30)	Gantt chart, PERT Chart ,assignment
		Software Maintenance: Type of maintenance, Management of Maintenance,
		Maintenance Process, maintenance characteristics.
SUNDAY - 01.10.2023		
HOLIDAY - 02.10.2023 MAHATMA GANDHI JAYANTI		
10	October (3-7)	Software Project Planning: Cost estimation: COCOMO model
SUNDAY - 08.10.2023		
11	October (9-14)	Project scheduling, Staffing and personnel planning team structure,
SUNDAY - 15.10.2023 & HOLIDAY (MAHARAJA AGRASEN JAYANTI)		
12	October (16-21)	Software configuration management, Quality assurance plans, Project monitoring plans,
SUNDAY - 22.10.2023		
13	October (23, 25-27)	Risk Management
		Software testing strategies: unit testing,
HOLIDAY - 24.10.2023 DUSSEHRA		
HOLIDAY 28.10.2023 - MAHARISHI VALMIKI JAYANTI		
SUNDAY -29.10.2023		
14	October (30-31) November (2-4)	integration testing, Validation testing, System testing,
HOLIDAY 01.11.2023 - HARYANA DAY		
15	November (6-9)	Alpha and Beta testing
Diwali Break - 10.11.2023 to 16.11.2023		
16	November (17-18)	test revision
SUNDAY - 19.11.2023		
17	November (20-24)	revision revision revision
25.11.2023 - Examinations		

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Weekly Lesson Plan (Odd Semester)

UG (1st / III / V - Semester)

Name of the Paper:- DATA STRUCTURE

Class:BCA II

Name of the Teachers (Section Wise) : PREETI MALIK

WEEK	DATE	TOPICS
1	August (5)	
SUNDAY - 06.08.2023		
2	August (7-12)	
		Introduction: Elementary data organization
		Data Structure definition Data type vs. data structure
SUNDAY - 13.08.2023		
3	August (14-19)	
		Categories of data structures
		Data structure operations
HOLIDAY - 15.08.2023 - INDEPENDENCE DAY		
SUNDAY - 20.08.2023		
4	August (21-26)	
		Applications of data structures
		Algorithms complexity and time-space tradeof
		Big-O notation
SUNDAY - 27.08.2023		
5	August (28-29, 31) September (1-2)	
		Strings: Introduction, String ,String operations
		ASSIGNMENT -1
		Pattern matching algorithms
HOLIDAY - 30.08.2023 - RAKSHABANDHAN		
SUNDAY - 03.09.2023		
6	September (4-5, 7-9)	
		Arrays: Introduction, Linear arrays
		Representation of linear array in memory
		Traversal, Insertions, Deletion in an array
HOLIDAY - 06.09.2023 - JANAMASHTMI		
SUNDAY - 10.09.2023		
7	September (11-16)	
		Multidimensional arrays, Parallel arrays, Sparce matrices
		Linked List: Introduction, Array vs. linked list
		Representation of linked lists in memory
SUNDAY - 17.09.2023		
8	September (18-22)	
		Traversal, Insertion, Deletion
		Searching in a linked list, Header linked list

HOLIDAY 23.09.2023 - SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY		
SUNDAY - 24.09.2023		
9	September (25-30)	
		CONDITIONAL TEST
		Circular linked list, Two-way linked list Garbage collection, Applications of linked lists
SUNDAY - 01.10.2023		
HOLIDAY - 02.10.2023 MAHATMA GANDHI JAYANTI		
10	October (3-7)	
		Algorithms for Insertion deletion in array
		Single linked list
SUNDAY - 08.10.2023		
11	October (9-14)	
		ASSIGNMENT -2
		Stack: Introduction
		Array and linked representation of stacks
SUNDAY - 15.10.2023 & HOLIDAY (MAHARAJA AGRASEN JAYANTI)		
12	October (16-21)	
		Operations on stacks
		Applications of stacks: Polish notation, Recursion
		Queues: Introduction
SUNDAY - 22.10.2023		
13	October (23, 25-27)	
		Array and linked representation of queues
		Operations on queues
HOLIDAY - 24.10.2023 DUSSEHRA		
HOLIDAY 28.10.2023 - MAHARISHI VALMIKI JAYANTI		
SUNDAY -29.10.2023		
14	October (30-31) November (2-4)	
		Deque, Priority Queues, Applications of queues
		Tree: Introduction, Definition
		Representing Binary tree in memory, Traversing binary trees
HOLIDAY 01.11.2023 - HARYANA DAY		
15	November (6-9)	
		Traversal algorithms using stacks and using recursion
Diwali Break - 10.11.2023 to 16.11.2023		
16	November (17-18)	Graph: Introduction, Graph theory terminology
		Sequential and linked representation of graphs
SUNDAY - 19.11.2023		
17	November (20-24)	
		REVISION
		REVISION
25.11.2023 - Examinations		

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Weekly Lesson Plan (Odd Semester)

UG (III Semester)

Name of the Paper:- Numerical Analysis

Class:BCA-II

Name of the Teachers (Section Wise) : Ashwani Gupta

WEEK	DATE	TOPICS
1	August (5)	Introduction of the Subject
SUNDAY - 06.08.2023		
2	August (7-12)	Iterative Methods: Bisection, False position, Newton-Raphson method.
		Iterative Methods: Bisection, False position, Newton-Raphson method.
		Iterative Methods: Bisection, False position, Newton-Raphson method.
		Iteration method, discussion of convergence, Bairstow's method.
		Iteration method, discussion of convergence, Bairstow's method.
SUNDAY - 13.08.2023		
3	August (14-19)	Gauss-Elimination methods, pivoting, Ill-conditioned
		Gauss-Elimination methods, pivoting, Ill-conditioned
		Refinement of solution
		Newton Raphson Square Root, Cube Root, Inverse , Inverse Square Root
HOLIDAY - 15.08.2023 - INDEPENDENCE DAY		
SUNDAY - 20.08.2023		
4	August (21-26)	Leave
		Leave
		Leave
		Leave
		Leave
SUNDAY - 27.08.2023		
5	August (28-29, 31) September (1-2)	Leave
		Leave
		Gauss-Seidal iterative method
		Gauss-Seidal iterative method
HOLIDAY - 30.08.2023 - RAKSHABANDHAN		
SUNDAY - 03.09.2023		
6	September (4-5, 7-9)	Euler method, Euler modified method, Taylor-series method,
		Euler method, Euler modified method, Taylor-series method,
		Euler method, Euler modified method, Taylor-series method,
		Runge-Kutta methods, Predictor-Corrector methods.
HOLIDAY - 06.09.2023 - JANAMASHTMI		
SUNDAY - 10.09.2023		
7	September (11-16)	Interpolation and Approximation:
		Polynomial interpolation: Newton, Lagranges, Difference tables,
		Approximation of functions by Taylor Series.
		Chebyshev polynomial: First kind, Second kind and their relations,
		Chebyshev polynomial: First kind, Second kind and their relations,
SUNDAY - 17.09.2023		
8	September (18-22)	Computer Arithmetic: Floating-point representation of numbers,
		Computer Arithmetic: Floating-point representation of numbers,
		Computer Arithmetic: Floating-point representation of numbers,
		Computer Arithmetic: Floating-point representation of numbers,
		Computer Arithmetic: Floating-point representation of numbers,

HOLIDAY 23.09.2023 - SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY		
SUNDAY - 24.09.2023		
9	September (25-30)	arithmetic operations with normalized floating-point numbers and their consequences, significant figures
		arithmetic operations with normalized floating-point numbers and their consequences, significant figures
		arithmetic operations with normalized floating-point numbers and their consequences, significant figures
		Error in number representation-inherent error, truncation, absolute,relative, percentage and round-off error.
		Error in number representation-inherent error, truncation, absolute,relative, percentage and round-off error.
		Error in number representation-inherent error, truncation, absolute,relative, percentage and round-off error.
SUNDAY - 01.10.2023		
HOLIDAY - 02.10.2023 MAHATMA GANDHI JAYANTI		
10	October (3-7)	Querries
		Querries
		Querries
		Querries
		Querries
SUNDAY - 08.10.2023		
11	October (9-14)	Numerical Differentiation and integration: Differentiation formulae based on polynomial fit, pitfalls in differentiation
		Numerical Differentiation and integration: Differentiation formulae based on polynomial fit, pitfalls in differentiation
		Numerical Differentiation and integration: Differentiation formulae based on polynomial fit, pitfalls in differentiation
		Numerical Differentiation and integration: Differentiation formulae based on polynomial fit, pitfalls in differentiation
		Numerical Differentiation and integration: Differentiation formulae based on polynomial fit, pitfalls in differentiation
SUNDAY - 15.10.2023 & HOLIDAY (MAHARAJA AGRASEN JAYANTI)		
12	October (16-21)	Trapezoidal & Simpson Rules, Gaussian Quadrature.
		Trapezoidal & Simpson Rules, Gaussian Quadrature.
		Trapezoidal & Simpson Rules, Gaussian Quadrature.
		Trapezoidal & Simpson Rules, Gaussian Quadrature.
		Trapezoidal & Simpson Rules, Gaussian Quadrature.
SUNDAY - 22.10.2023		
13	October (23, 25-27)	Conditional Test
		Conditional Test
		Conditional Test
		Revision Unit I
		Revision Unit I
		Revision Unit I
HOLIDAY - 24.10.2023 DUSSEHRA		
HOLIDAY 28.10.2023 - MAHARISHI VALMIKI JAYANTI		
SUNDAY -29.10.2023		
14	October (30-31) November (2-4)	Revision Unit II
		Revision Unit II
		Revision Unit II
		Revision Unit II
		Revision Unit II
		Revision Unit II
HOLIDAY 01.11.2023 - HARYANA DAY		
15	November (6-9)	Revision Unit III
		Revision Unit III
		Revision Unit III
		Revision Unit III
Diwali Break - 10.11.2023 to 16.11.2023		
16	November (17-18)	Revision Unit IV
		Revision Unit IV
SUNDAY - 19.11.2023		
17	November (20-24)	Doubt Session
		Doubt Session
		Doubt Session
		Doubt Session
		Doubt Session
25.11.2023 - Examinations		