

**I.B. (PG) COLLEGE, PANIPAT  
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022)

(Odd Semester)

Weekly Lesson Plan UG (IIIrd Semester )

Name of the Paper:- OBJECT ORIENTED PROGRAMMING USING 'C++' Class: BCA II Year

Name of the Teachers (Section wise): PROF. VINAY BHARTI

WEEK	DATE	TOPICS
1	October (6 - 9)	ORIENTATION
		<b>HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti</b>
		ORIENTATION
		ORIENTATION
<b>SUNDAY - 10.10.2021</b>		
2	October (11-16)	Object oriented Programming: Object-Oriented programming features and benefits
		CONTINUE...
		Scope resolution operator and its significance
		Static Data Members, Static member functions
		<b>HOLIDAY - 15.10.2021 - DUSSEHRA</b>
		Nested and Local Class
<b>SUNDAY - 17.10.2021</b>		
3	October (18-23)	CONTINUE...
		CONTINUE...
		<b>Holiday - 20.10.2021 - Maharishi Valmiki Jayanti</b>
		Accessing Members of Class and Structure
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
<b>SUNDAY - 24.10.2021</b>		
4	October (25 -30)	REVISION
		CLASS TEST (OOPS)
		Constructor, Initialization using constructor, types of constructor– Default
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
		Parameterized & Copy Constructors
<b>VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK</b>		
5	November (8 -13 )	PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
		Constructor overloading
		PROGRAMMING EXAMPLES
		Default Values to Parameters
		Destructors
<b>SUNDAY - 14.11.2021</b>		

6	November (15 -20 )	PROGRAMMING EXAMPLES
		REVISION
		CLASS TEST (CONSTRUCTOR & DESTRUCTOR)
		Console I/O: Hierarchy of Console Stream Classes
		<b>Holiday -19.11.2021 - Guru Nanak Dev Jayanti</b>
		Unformatted and Formatted I/O Operations
<b>SUNDAY - 21.11.2021</b>		
7	November (22-27)	PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
		REVISION
		PRESENTATION (CLASSES AND OBJECT)
		Manipulators, PROGRAMMING EXAMPLE
		Friend Function
<b>SUNDAY - 28.11.2021</b>		
8	November (29-30) December (1-4)	PROGRAMMING EXAMPLES
		Friend Class
		PROGRAMMING EXAMPLES
		Arrays, PROGRAMMING EXAMPLE
		Array of Objects
		PROGRAMMING EXAMPLES
<b>SUNDAY - 5.12.2021</b>		
9	December (6-11)	Passing and Returning Objects to Functions
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
		String Handling in C++
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
<b>SUNDAY - 12.12.2021</b>		
10	December (13-18)	Dynamic Memory Management: Pointers, new and delete Operator
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
		Array of Pointers to Objects
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
<b>SUNDAY - 19.12.2021</b>		

11	December (20-25)	this Pointer
		PROGRAMMING EXAMPLES
		Passing Parameters to Functions by Reference & pointers
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
		<b>Holiday -25.12.2021 - Christmas</b>
<b>SUNDAY - 26.12.2021</b>		
12	December (27-31)	REVISION
		REVISION
		CONDITIONAL TEST (I/O STREAMS)
		Polymorphism, Advantages and Disadvantages
		Operators in C++
	January (1)	CONTINUE...
<b>SUNDAY -02.01.2022</b>		
13	January (3-8)	CONTINUE...
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
		Precedence and Associativity Rules
		Operator Overloading, Unary
		PROGRAMMING EXAMPLES
<b>SUNDAY - 09.01.2022</b>		
14	January (10-15)	PROGRAMMING EXAMPLES
		Binary Operators Overloading,
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
		Function Overloading
		PROGRAMMING EXAMPLES
<b>SUNDAY - 16.01.2022</b>		
15	January (17-22)	REVISION
		REVISION
		REVISION
		REVISION
		PRESENTATION (OPERATOR OVERLOADING)
		PRESENTATION (OPERATOR OVERLOADING)
<b>SUNDAY - 23.01.2022</b>		
16	January (24-29)	Inline Functions
		PROGRAMMING EXAMPLES
		<b>Holiday - 26.01.2022 - Republic day</b>
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
		PROGRAMMING EXAMPLES
<b>SUNDAY - 30.01.2022</b>		

17	January(31)	REVISION
	February(1-4)	REVISION
		REVISION
		REVISION
		REVISION
<b>Holiday - 05.02.2022 - Vasant Panchami</b>		
<b>SUNDAY - 6.02.2022</b>		
18	February (7-12)	CLASS TEST (OPERATOR OVERLOADING)
		REVISION
		REVISION
		REVISION
		REVISION
		REVISION
<b>SUNDAY - 13.02.2022</b>		
19	February (14-19)	REVISION
		REVISION
		REVISION
		REVISION
		REVISION
		REVISION
<b>SUNDAY - 20.02.2022</b>		
20	February (21-22)	REVISION
		REVISION

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Teaching Term : (06.10.2021 to 22.02.2022)

(Odd Semester)

Weekly Lesson Plan UG ( IIIrd Semester )

Name of the Paper:- Data Structure-I

Class: BCA-II

Name of the Teachers (Section wise): ASHWANI GUPTA

WEEK	DATE	TOPICS
1	October (6 - 9)	<b>HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti</b>
		INTRODUCTION
		INTRODUCTION
<b>SUNDAY - 10.10.2021</b>		
2	October (11-16)	Introduction: Elementary data organization,
		Introduction: Elementary data organization,
		Introduction: Elementary data organization,
		Introduction: Elementary data organization,
		<b>HOLIDAY - 15.10.2021 - DUSSEHRA</b>
		Introduction: Elementary data organization,
<b>SUNDAY - 17.10.2021</b>		
3	October (18-23)	Data Structure definition, Data type vs. data structure,
		Data Structure definition, Data type vs. data structure,
		<b>Holiday - 20.10.2021 - Maharishi Valmiki Jayanti</b>
		Categories of data structures,
		Categories of data structures,
		Categories of data structures,
<b>SUNDAY - 24.10.2021</b>		
4	October (25 -30)	Strings: Introduction, Stroing strings, String operations,
		Strings: Introduction, Stroing strings, String operations,
		Strings: Introduction, Stroing strings, String operations,
		<b>LEAVE</b>
		<b>LEAVE</b>
		<b>LEAVE</b>
<b>VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK</b>		
5	November (8 -13 )	Pattern matching algorithms
		Pattern matching algorithms
		Pattern matching algorithms
		Data structure operations, Applications of data structures,
		Data structure operations, Applications of data structures,
		Data structure operations, Applications of data structures,
<b>SUNDAY - 14.11.2021</b>		

6	November (15 -20 )	Algorithms complexity and time-space tradeoff.
		Algorithms complexity and time-space tradeoff.
		Algorithms complexity and time-space tradeoff.
		Assignment No 1
		<b>Holiday -19.11.2021 - Guru Nanak Dev Jayanti</b>
		Doubt Session
<b>SUNDAY - 21.11.2021</b>		
7	November (22-27)	Stack: Introduction, Array and linked representation of stacks
		Stack: Introduction, Array and linked representation of stacks
		Stack: Introduction, Array and linked representation of stacks
		, Operations on stacks, Applications of stacks: Polish notation, Recursion.
		, Operations on stacks, Applications of stacks: Polish notation, Recursion.
		, Operations on stacks, Applications of stacks: Polish notation, Recursion.
<b>SUNDAY - 28.11.2021</b>		
8	November (29-30) December (1-4)	, Operations on stacks, Applications of stacks: Polish notation, Recursion.
		, Operations on stacks, Applications of stacks: Polish notation, Recursion.
		Queues: Introduction, Array and linked representation of queues, Operations on queues, Deques, Priority Queues, Applications of queues.
		Queues: Introduction, Array and linked representation of queues, Operations on queues, Deques, Priority Queues, Applications of queues.
		Queues: Introduction, Array and linked representation of queues, Operations on queues, Deques, Priority Queues, Applications of queues.
		Queues: Introduction, Array and linked representation of queues, Operations on queues, Deques, Priority Queues, Applications of queues.
<b>SUNDAY - 5.12.2021</b>		
9	December (6-11)	Arrays: Introduction, Linear arrays, Representation of linear array in memory,
		Arrays: Introduction, Linear arrays, Representation of linear array in memory,
		Arrays: Introduction, Linear arrays, Representation of linear array in memory,
		Arrays: Introduction, Linear arrays, Representation of linear array in memory,
		Arrays: Introduction, Linear arrays, Representation of linear array in memory,
		Arrays: Introduction, Linear arrays, Representation of linear array in memory,
<b>SUNDAY - 12.12.2021</b>		
10	December (13-18)	Traversal, Insertions, Deletion in an array,
		Traversal, Insertions, Deletion in an array,
		Traversal, Insertions, Deletion in an array,
		Multidimensional arrays, Parallel arrays, Sparce matrices
		Multidimensional arrays, Parallel arrays, Sparce matrices
		Multidimensional arrays, Parallel arrays, Sparce matrices
<b>SUNDAY - 19.12.2021</b>		

11	December (20-25)	Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
		Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
		Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
		Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
		Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
		<b>Holiday -25.12.2021 - Christmas</b>
<b>SUNDAY - 26.12.2021</b>		
12	December (27-31)	Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
		Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
		Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
		Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
		Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.
January (1)	Doubt Session	
<b>SUNDAY -02.01.2022</b>		
13	January (3-8)	Graph: Introduction, Graph theory terminology,
		Graph: Introduction, Graph theory terminology,
		Graph: Introduction, Graph theory terminology,
		Graph: Introduction, Graph theory terminology,
		Graph: Introduction, Graph theory terminology,
		Graph: Introduction, Graph theory terminology,
<b>SUNDAY - 09.01.2022</b>		
14	January (10-15)	Sequential and linked representation of graphs.
		Sequential and linked representation of graphs.
		Sequential and linked representation of graphs.
		Sequential and linked representation of graphs.
		Sequential and linked representation of graphs.
		Sequential and linked representation of graphs.
<b>SUNDAY - 16.01.2022</b>		

15	January (17-22)	Linked List: Introduction, Array vs. linked list,
		Linked List: Introduction, Array vs. linked list,
		Linked List: Introduction, Array vs. linked list,
		Linked List: Introduction, Array vs. linked list,
		Linked List: Introduction, Array vs. linked list,
		Linked List: Introduction, Array vs. linked list,
<b>SUNDAY - 23.01.2022</b>		
16	January (24-29)	Representation of linked lists in memory
		Representation of linked lists in memory
		<b>Holiday - 26.01.2022 - Republic day</b>
		Traversal, Insertion, Deletion, Searching in a linked list,
		Traversal, Insertion, Deletion, Searching in a linked list,
		Traversal, Insertion, Deletion, Searching in a linked list,
<b>SUNDAY - 30.01.2022</b>		
17	January(31)	Traversal, Insertion, Deletion, Searching in a linked list,
	February(1-4)	Header linked list, Circular linked list, Two-way linked list,
		Header linked list, Circular linked list, Two-way linked list,
		Header linked list, Circular linked list, Two-way linked list,
		Header linked list, Circular linked list, Two-way linked list,
<b>Holiday - 05.02.2022 - Vasant Panchami</b>		
<b>SUNDAY - 6.02.2022</b>		
18	February (7-12)	<b>Conditional Test</b>
		<b>Revision Unit-I</b>
		<b>Revision Unit-I</b>
		<b>Revision Unit-I</b>
		<b>Revision Unit-I</b>
		<b>Revision Unit-I</b>
<b>SUNDAY - 13.02.2022</b>		
19	February (14-19)	<b>Revision Unit-II</b>
		<b>Revision Unit-II</b>
		<b>Revision Unit-II</b>
		<b>Revision Unit-III</b>
		<b>Revision Unit-III</b>
		<b>Revision Unit-III</b>
<b>SUNDAY - 20.02.2022</b>		
20	February (21-22)	<b>Revision Unit-IV</b>
		<b>Revision Unit-IV</b>

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Teaching Term : (06.10.2021 to 22.02.2022)

(Odd Semester)

Weekly Lesson Plan : UG ( IIIrd Semester )

Name of the Paper:- ComputerArchitecture

Class: BCA II Year

Name of the Teachers (Section wise): Prof. Ritu

WEEK	DATE	TOPICS
1	October (6 - 9)	Basic computer organization and design
		<b>HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti</b>
<b>SUNDAY - 10.10.2021</b>		
2	October (11-16)	Instruction code
		Instruction code
		Computer Register
		<b>HOLIDAY - 15.10.2021 - DUSSEHRA</b>
<b>SUNDAY - 17.10.2021</b>		
3	October (18-23)	Computer Register
		Computer Register
		<b>Holiday - 20.10.2021 - Maharishi Valmiki Jayanti</b>
<b>SUNDAY - 24.10.2021</b>		
4	October (25 -30)	<b>Test</b>
		Computer instructions
		Computer instructions
<b>VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK</b>		
5	November (8 -13 )	Timing and control
		Timing and control
		Instruction cycle
<b>SUNDAY - 14.11.2021</b>		

6	November (15 -20 )	Memory reference instructions
		Memory reference instructions
		Input-Output and interupt
		<b>Holiday -19.11.2021 - Guru Nanak Dev Jayanti</b>
<b>SUNDAY - 21.11.2021</b>		
7	November (22-27)	Design of basic computer
		Design of basic computer
		unit revision
<b>SUNDAY - 28.11.2021</b>		
8	November (29-30) December (1-4)	Test
		Design of accumlator logic,Register transfer
		Design of accumlator logic,Register transfer
<b>SUNDAY - 5.12.2021</b>		
9	December (6-11)	Register transfer and microoperation,RTL
		Register transfer,Bus and memory transfer
		Arithmetic micro operation
<b>SUNDAY - 12.12.2021</b>		
10	December (13-18)	Assignment
		Logic micro operation
		Shift micro operation
<b>SUNDAY - 19.12.2021</b>		
11	December (20-25)	Arithmetic logic shift unit
		Micro programmed control
		Control memory
		<b>Holiday -25.12.2021 - Christmas</b>
<b>SUNDAY - 26.12.2021</b>		

12	December (27-31)	Adress sequencing
		Microprogram sequencer
		Microprogram sequencer
	January (1)	
<b>SUNDAY -02.01.2022</b>		
13	January (3-8)	Design of control unit
		Test
		Central processing unit
<b>SUNDAY - 09.01.2022</b>		
14	January (10-15)	General register oragnization
		Stack Oraganization
		Instruction format
<b>SUNDAY - 16.01.2022</b>		
15	January (17-22)	Adressing modes
		Adressing modes
		Adressing modes
<b>SUNDAY - 23.01.2022</b>		
16	January (24-29)	Data transfer and manipulation
		program interupt
		<b>Holiday - 26.01.2022 - Republic day</b>
<b>SUNDAY - 30.01.2022</b>		

17	January(31)	RISC,CISC
	February(1-4)	Memory hierarchy
		Auxilliary memory
<b>Holiday - 05.02.2022 - Vasant Panchami</b>		
<b>SUNDAY - 6.02.2022</b>		
18	February (7-12)	Associative memory
		Interleaved memory,cache memory
		Peripheral devices,input output interface
<b>SUNDAY - 13.02.2022</b>		
19	February (14-19)	Peripheral devices,input output interface
		Modes of transfer,IOP
		,Priority interupt
<b>SUNDAY - 20.02.2022</b>		
20	February (21-22)	IOP
		Revision

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Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)  
 Weekly Lesson Plan UG ( IIIrd Semester )  
 Name of the Paper:- SOFTWARE ENGINEERING Class: BCA II Year  
 Name of the Teachers (Section wise): Dr.Ranju

WEEK	DATE	TOPICS
1	October (6 - 9)	TIME-TABLE DISPLAY & DISCUSSION
		<b>HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti</b>
<b>SUNDAY - 10.10.2021</b>		
2	October (11-16)	Syllabus Discussion
		<b>Program vs. S/W,Software eng.</b>
		Programming paradigms
		<b>HOLIDAY - 15.10.2021 - DUSSEHRA</b>
<b>SUNDAY - 17.10.2021</b>		
3	October (18-23)	Software crisis
		Phases in Software engineering
		<b>Holiday - 20.10.2021 - Maharishi Valmiki Jayanti</b>
<b>SUNDAY - 24.10.2021</b>		
4	October (25 -30)	Waterfall model
		Prototype model,Evolutionary model
		Contd..
<b>VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK</b>		
5	November (8 -13 )	Spiral model
		Role of matrices
		Feasibility study,Introduction of SRS
<b>SUNDAY - 14.11.2021</b>		

6	November (15 -20 )	Need of SRS,Characterstics of SRS
		Components of SRS,Problem Analysis
		Information Gathering Tools
		<b>Holiday -19.11.2021 - Guru Nanak Dev Jayanti</b>
<b>SUNDAY - 21.11.2021</b>		
7	November (22-27)	Information Gathering Tools
		Organising and Structuring information
		Requierment Specification,Validation
<b>SUNDAY - 28.11.2021</b>		
8	November (29-30) December (1-4)	Matrics
		Structured Analysis and Tools: DFD
		Data dictionary,Decision Table,Decision Tree
<b>SUNDAY - 5.12.2021</b>		
9	December (6-11)	Structured English,E-R Diagrams
		COCOMO model
		Project Scheduling,Staffing
<b>SUNDAY - 12.12.2021</b>		
10	December (13-18)	Quality assurance plans
		Project monitoring plans
		Risk management
<b>SUNDAY - 19.12.2021</b>		
11	December (20-25)	Risk management contd..
		Problem discussion
		conditional test
		<b>Holiday -25.12.2021 - Christmas</b>
<b>SUNDAY - 26.12.2021</b>		

12	December (27-31)	Testing strategies: Unit testing, Integration testing
		V And V, System Testing
		Alpha testing and Beta testing
	January (1)	
<b>SUNDAY - 02.01.2022</b>		
13	January (3-8)	Black box testing
		Black box testing
		white box testing
<b>SUNDAY - 09.01.2022</b>		
14	January (10-15)	white box testing
		Cyclomatic Comolexity
		Assignment II
<b>SUNDAY - 16.01.2022</b>		
15	January (17-22)	Introduction of Maintenance, Type of maintenance
		Management of maintenance
		Problem discussion
<b>SUNDAY - 23.01.2022</b>		
16	January (24-29)	Maintenance Process
		Maintenance Characterstics
		<b>Holiday - 26.01.2022 - Republic day</b>
<b>SUNDAY - 30.01.2022</b>		

17	January(31)	Revision
	February(1-4)	CLASS TEST
		discussion
<b>Holiday - 05.02.2022 - Vasant Panchami</b>		
<b>SUNDAY - 6.02.2022</b>		
18	February (7-12)	Revision
		CLASS TEST
		discussion
<b>SUNDAY - 13.02.2022</b>		
19	February (14-19)	Revision
		CLASS TEST
		discussion
<b>SUNDAY - 20.02.2022</b>		
20	February (21-22)	Revision
		Revision

**I.B. (PG) COLLEGE, PANIPAT  
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Teaching Term : (06.10.2021 to 22.02.2022)

(Odd Semester)

Weekly Lesson Plan UG ( IIIrd Semester )

Name of the Paper:- DBMS (4-6 DAYS)

Class: B.C.A. II Year

Name of the Teachers (Section wise): NITIKA GOEL

WEEK	DATE	TOPICS
1	October (6 - 9)	HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		GENERAL INTRODUCTION
		INTRO OF SUBJECT
		SUNDAY - 10.10.2021
2	October (11-16)	
		BASIC CONCEPTS
		HOLIDAY - 15.10.2021 - DUSSEHRA
		DATA , INFORMATION, FILES
SUNDAY - 17.10.2021		
3	October (18-23)	
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		TRADITIONAL FILE BASED SYSTEM
		CONTINUE
	REVISE	
SUNDAY - 24.10.2021		
4	October (25 -30)	
		DBMS, CHARACTERISTICS
		COMPONENTS OF DBMS ENVIORNMENT
	DBMS FUNCTIONS	
<b>VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK</b>		
5	November (8 -13 )	
		COMPONENTS OF DBMS
		ADVANTAGES AND DISADVANTAGES OF DBMS
	GENERAL DISCUSSION	
SUNDAY - 14.11.2021		

6	November (15 -20 )	
		<b>ROLES IN DBMS ENVIORNMENT</b>
		<b>Holiday -19.11.2021 - Guru Nanak Dev Jayanti</b>
CONTINUE		
<b>SUNDAY - 21.11.2021</b>		
7	November (22-27)	
		DATABASE DESIGNERS , APPLICATIONS DEVELOPERS AND USERS
		<b>DBMS ARCHITECTURE</b>
CONTINUE		
<b>SUNDAY - 28.11.2021</b>		
8	November (29-30) December (1-4)	
		COCEPTUAL AND INTERNAL LEVEL
		SCHEMAS
MAPPINGS AND INSTANCES		
<b>SUNDAY - 5.12.2021</b>		
9	December (6-11)	
		DATA INDEPENDENCE
		TEST
REVISE		
<b>SUNDAY - 12.12.2021</b>		
10	December (13-18)	
		CLASSIFICATION OF DBMS
		CENTRALIZED AND CLIENT SERVER ARCHITECTURE TO DBMS
<b>PROBLEMS DISCUSSED</b>		
<b>SUNDAY - 19.12.2021</b>		
11	December (20-25)	
		DATA MODELS
		RECORD BASED DATA MODELS
<b>Holiday -25.12.2021 - Christmas</b>		
<b>SUNDAY - 26.12.2021</b>		

12	December (27-31)	
		OBJECT BASED DATA MODEL
		PHYSICAL DATA MODEL , CONCEPTUAL MODELING
	January (1)	ENTITY RELATIONSHIP MODEL
<b>SUNDAY -02.01.2022</b>		
13	January (3-8)	
		ENTITY SET , TYPE, ATTRIBUTES TYPES RELATION
		CONTINUE
		REVISION
<b>SUNDAY - 09.01.2022</b>		
14	January (10-15)	
		RELATIONSHIP INSTANCES
		E -R DIAGRAMS
		TEST
<b>SUNDAY - 16.01.2022</b>		
15	January (17-22)	
		RELATIONAL DATA MODEL
		TERMONOLOGY IN RELATIONAL DATA STRUCTURE
		RELATIONS, PROPERTIES , KEYS, DOMAINS
<b>SUNDAY - 23.01.2022</b>		
16	January (24-29)	
		<b>Holiday - 26.01.2022 - Republic day</b>
		INTEGRITY CONSTRAINTS OVER RELATIONS
		BASE TABLES AND VIEWS
	REVISE	
<b>SUNDAY - 30.01.2022</b>		

17	January(31)	
	February(1-4)	
		COCEPT OF HIREARCHICAL DATA MODEL
		CONTINUE
<b>Holiday - 05.02.2022 - Vasant Panchami</b>		
<b>SUNDAY - 6.02.2022</b>		
18	February (7-12)	
		CONCEPT OF NETWORK DATA MODEL
		CONTINUE
		PRESENTATION OF TOPICS
<b>SUNDAY - 13.02.2022</b>		
19	February (14-19)	
		QUESTION PAPERS DISCUSSED
		REVISION
		REVISION
<b>SUNDAY - 20.02.2022</b>		
20	February (21-22)	

**I.B. (PG) COLLEGE, PANIPAT  
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG ( IIIrd Semester )

Name of the Paper:- Numerical Analysis

Class: BCA-II

Name of the Teachers (Section wise): ASHWANI GUPTA

WEEK	DATE	TOPICS
1	October (6 - 9)	
		<b>HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti</b>
		Introduction
		Introduction
<b>SUNDAY - 10.10.2021</b>		
2	October (11-16)	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.
		<b>HOLIDAY - 15.10.2021 - DUSSEHRA</b>
		Iteration method, discussion of convergence, Bairstow's method.
<b>SUNDAY - 17.10.2021</b>		
3	October (18-23)	Gauss-Elimination methods, pivoting, Ill-conditioned
		Gauss-Elimination methods, pivoting, Ill-conditioned
		<b>Holiday - 20.10.2021 - Maharishi Valmiki Jayanti</b>
		Refinement of solution
		Refinement of solution
		Refinement of solution
<b>SUNDAY - 24.10.2021</b>		
4	October (25 -30)	Newton Raphson Square Root, Cube Root, Inverse , Inverse Square Root
		Newton Raphson Square Root, Cube Root, Inverse , Inverse Square Root
		Newton Raphson Square Root, Cube Root, Inverse , Inverse Square Root
		<b>LEAVE</b>
		<b>LEAVE</b>
		<b>LEAVE</b>
<b>VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK</b>		

5	November (8-13)	Gauss-Seidal iterative method
		Gauss-Seidal iterative method
		Gauss-Seidal iterative method
		Computer Arithmetic: Floating-point representation of numbers,
		Computer Arithmetic: Floating-point representation of numbers,
		Computer Arithmetic: Floating-point representation of numbers,
<b>SUNDAY - 14.11.2021</b>		
6	November (15-20)	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
		arithmetic operations with normalized floating-point numbers and their consequences, significant figures
		<b>Holiday -19.11.2021 - Guru Nanak Dev Jayanti</b>
		arithmetic operations with normalized floating-point numbers and their consequences, significant figures
<b>SUNDAY - 21.11.2021</b>		
7	November (22-27)	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.
		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.
<b>SUNDAY - 28.11.2021</b>		
8	November (29-30) December (1-4)	Assignment No 1
		Doubt Session
		Euler method, Euler modified method, Taylor-series method,
		Euler method, Euler modified method, Taylor-series method,
		Euler method, Euler modified method, Taylor-series method,
		Euler method, Euler modified method, Taylor-series method,
<b>SUNDAY - 5.12.2021</b>		

9	December (6-11)	Euler method, Euler modified method, Taylor-series method,
		Euler method, Euler modified method, Taylor-series method,
		Runge-Kutta methods, Predictor-Corrector methods.
		Runge-Kutta methods, Predictor-Corrector methods.
		Runge-Kutta methods, Predictor-Corrector methods.
		Runge-Kutta methods, Predictor-Corrector methods.
<b>SUNDAY - 12.12.2021</b>		
10	December (13-18)	Interpolation and Approximation:
		Polynomial interpolation: Newton, Lagranges, Difference tables,
		Interpolation and Approximation:
		Polynomial interpolation: Newton, Lagranges, Difference tables,
		Interpolation and Approximation:
		Polynomial interpolation: Newton, Lagranges, Difference tables,
<b>SUNDAY - 19.12.2021</b>		
11	December (20-25)	Approximation of functions by Taylor Series.
		Approximation of functions by Taylor Series.
		Approximation of functions by Taylor Series.
		Chebyshev polynomial: First kind, Second kind and their relations,
		Chebyshev polynomial: First kind, Second kind and their relations,
		<b>Holiday -25.12.2021 - Christmas</b>
<b>SUNDAY - 26.12.2021</b>		
12	December (27-31)	Chebyshev polynomial: First kind, Second kind and their relations,
		Chebyshev polynomial: First kind, Second kind and their relations,
		Chebyshev polynomial: First kind, Second kind and their relations,
		Chebyshev polynomial: First kind, Second kind and their relations,
		Doubt Session
	January (1)	Doubt Session
<b>SUNDAY -02.01.2022</b>		
13	January (3-8)	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
		Numerical Differentiation and integration: Differentiation formulae based on polynomial fit, pitfalls in differentiation
<b>SUNDAY - 09.01.2022</b>		

14	January (10-15)	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
<b>SUNDAY - 16.01.2022</b>		
15	January (17-22)	Trapezoidal &
		Simpson Rules, Gaussian Quadrature.
		Trapezoidal &
		Simpson Rules, Gaussian Quadrature.
		Trapezoidal &
		Simpson Rules, Gaussian Quadrature.
<b>SUNDAY - 23.01.2022</b>		
16	January (24-29)	Trapezoidal &
		Simpson Rules, Gaussian Quadrature.
		<b>Holiday - 26.01.2022 - Republic day</b>
		Trapezoidal &
		Simpson Rules, Gaussian Quadrature.
		<b>Doubt Session</b>
<b>SUNDAY - 30.01.2022</b>		
14	January(31)	Assignment No 2
	February(1-4)	Conditional Test
		Revision Unit I
		Revision Unit I
		Revision Unit I
<b>Holiday - 05.02.2022 - Vasant Panchami</b>		
<b>SUNDAY - 6.02.2022</b>		
15	February (7-12)	Revision Unit II
		Revision Unit II
		Revision Unit II
		Revision Unit II
		Revision Unit II
		Revision Unit II
<b>SUNDAY - 13.02.2022</b>		

16	February (14-19)	Revision Unit III
		Revision Unit III
		Revision Unit III
		Revision Unit III
		Revision Unit III
		Revision Unit IV
		<b>SUNDAY - 20.02.2022</b>
17	February (21-22)	Revision Unit IV
		Revision Unit IV