

I.B. (PG) COLLEGE, PANIPAT

LESSON PLAN

SESSION 2022-23 (01.02.2023 to 16.05.2023)

Weekly Lesson Plan Even Semester)

UG (II / IV / VI - Semester) 4th Semester

Name of the Paper:- ADVANCED DATA STRUCTURE

Class: BCA 2nd

Name of the Teachers (Section Wise) : PREETI MALIK

WEEK	DATE	TOPICS
1	February (1-4)	Tree: Introduction, Definition
SUNDAY - 05.02.2023 Holiday (Guru Ravidass Jayanti)		
2	February (6-11)	Representing Binary tree in memory
		Traversing binary trees
		Traversal algorithms using stacks
SUNDAY - 12.02.2023		
3	February (13-17)	Binary search trees
		Binary search trees: introduction, storage
		Searching
HOLIDAY - 18.02.2023 (Maha Shivratri)		
SUNDAY - 19.02.2023		
4	February (20-25)	Huffman's algorithm
		General trees
		ASSIGNMENT-1
SUNDAY - 26.02.2023		
5	February (27-28) March (1-4)	Graph: Introduction
		Graph theory terminology
		Sequential and linked representation of graphs
SUNDAY - 05.03.2023		
Holi Vacations - 05.03.2023 to 12.03.2023		
7	March (13-18)	operations on graphs
		traversal algorithms in graphs and their implementation
		Warshall's algorithm for shortest path
SUNDAY - 19.03.2023		

8	March (20-25)	Dijkstra algorithm for shortest path
		Sorting
		Internal & external sorting
SUNDAY - 26.03.2023		
HOLIDAY 23.03.2023 Shaheedi Diwas		
9	March (27-31) April (1)	CLASS TEST
		Radix sort
		Quick sort
HOLIDAY - 30.03.2023 (Ram Navmi)		
SUNDAY - 02.04.2023		
9	April (3-8)	Heap sort
		Merge sort ,Tournament sort
HOLIDAY - 04.04.2023 (Mahavir Jayanti)		
SUNDAY - 09.04.2023		
10	April (10-15)	Comparison of various sorting and searching algorithms on the basis of their complexity
		ASSIGNMENT-2
		Files: Introduction Attributes of a file
SUNDAY - 16.04.2023		
HOLIDAY - 14.04.2023 (DR.B.R.Ambedkar Jayanti)		
11	April (17-21)	Classification of files
		File operations
		Comparison of various types of files
SUNDAY - 23.04.2023		
Holiday Id-UI-Fitr/Parshuram Jayanti (Saturday)		
12	April (24-29)	File organization
		Sequential
		Indexed-sequential
SUNDAY - 30.04.2023		
13	May (1-6)	Random-access file
		CONDITIONAL TEST
		Hashing
SUNDAY - 07.05.2023		
14	May (8-13)	Hashing: Introduction
		Collision resolution
		Class Test
SUNDAY - 14.05.2023		
14	May (15-16)	REVISION
		REVISION
Examination 17.05.2023 Onwards.		

I.B. (PG) COLLEGE, PANIPAT

LESSON PLAN

SESSION 2022-23 (01.02.2023 to 16.05.2023)

Weekly Lesson Plan Even Semester)

UG (II / IV / VI - Semester) 4th Semester

Name of the Paper:-Advanced PROGRAMMING USING C++

Class:BCA 2nd

Name of the Teachers (Section Wise) :VINAY BHARTI

WEEK	DATE	TOPICS
1	February (1-4)	
		Dynamic Polymorphism
		Function Overriding
		Virtual Function and its Need
SUNDAY - 05.02.2023 Holiday (Guru Ravidass Jayanti)		
2	February (6-11)	
		Pure Virtual Function
		Abstract Class
		Virtual Derivation
SUNDAY - 12.02.2023		
3	February (13-17)	
		Virtual Destructor
		Type Conversion
HOLIDAY - 18.02.2023 (Maha Shivratri)		
SUNDAY - 19.02.2023		
4	February (20-25)	
		Basic Type Conversion
		Conversion between objects and basic types
		ASSIGNMENT-1
SUNDAY - 26.02.2023		
5	February (27-28) March (1-4)	
		Conversion between objects of different classes
		Inheritance: Rules of Derivations – Private
		Protected and Public Derivations
SUNDAY - 05.03.2023		
Holi Vacations - 05.03.2023 to 12.03.2023		
7	March (13-18)	
		Different Forms of Inheritance – Single
		Multiple, Multilevel
		Hierarchical and Multipath
SUNDAY - 19.03.2023		
8	March (20-25)	
		CONDITIONAL TEST
		Inheritance Roles of Constructors and Destructors in Inheritance
SUNDAY - 26.03.2023		
		HOLIDAY 23.03.2023 Shaheedi Diwas

9	March (27-31) April (1)	
		Genericity in C++
		Templates in C++
HOLIDAY - 30.03.2023 (Ram Navmi)		
SUNDAY - 02.04.2023		
9	April (3-8)	
		Function templates
		Class templates in C++
		ASSIGNMENT-2
HOLIDAY - 04.04.2023 (Mahavir Jayanti)		
SUNDAY - 09.04.2023		
10	April (10-15)	
		Exception Handling in C++
		try, throw and catch
SUNDAY - 16.04.2023		
HOLIDAY - 14.04.2023 (DR.B.R.Ambedkar Jayanti)		
11	April (17-21)	
		try, throw and catch
		Just In Time delivery in b2b; Internet-based EDI from traditional EDI
SUNDAY - 23.04.2023		
Holiday Id-UI-Fitr/Parshuram Jayanti (Saturday)		
12	April (24-29)	
		Files I/O in C++
		Class Hierarchy for Files I/O
SUNDAY - 30.04.2023		
13	May (1-6)	
		CLASS TEST
		Text Files
		Binary Files
SUNDAY - 07.05.2023		
14	May (8-13)	
		Opening and Closing Files
		File Pointers
		Operation on files.
SUNDAY - 14.05.2023		
14	May (15-16)	
Examination 17.05.2023 Onwards.		

I.B. (PG) COLLEGE, PANIPAT

LESSON PLAN

SESSION 2022-23 (01.02.2023 to 16.05.2023)

Weekly Lesson Plan Even Semester)

UG (II / IV / VI - Semester) 4th Semester

Name of the Paper:-E-Commerce

Class:BCA 2nd

Name of the Teachers (Section Wise) :PREETI MALIK

WEEK	DATE	TOPICS
1	February (1-4)	Introduction to E-Commerce:-Business operations
		E-commerce practices vs. traditional business practices
		concepts of b2b, b2c,c2c,b2g,g2h,g2c
SUNDAY - 05.02.2023 Holiday (Guru Ravidass Jayanti)		
2	February (6-11)	Features of E-Commerce, Types of Ecommerce Systems
		Elements of E-Commerce, principles of E-Commerce
		Benefits and Limitations of E-Commerce
SUNDAY - 12.02.2023		
3	February (13-17)	Management Issues relating to e-commerce. Operations of E-commerce
		Credit card transaction; Secure Hypertext Transfer Protocol (SHTP) ; Electronic payment systems
HOLIDAY - 18.02.2023 (Maha Shivratri)		
SUNDAY - 19.02.2023		
4	February (20-25)	Secure electronic transaction (SET) ; SET`s encryption; Process
		Cybercash; Smart cards; Indian payment models
		ASSIGNMENT-1
SUNDAY - 26.02.2023		
5	February (27-28) March (1-4)	Applications in governance: EDI in governance
		E-government; E-Governance applications of Internet; concept of government –to-business
		business-to-government and citizen-to-government; E-governance models
SUNDAY - 05.03.2023		
Holi Vacations - 05.03.2023 to 12.03.2023		
7	March (13-18)	Private sector interface in E governance. Applications in B2C
		Consumers shopping procedure on the Internet; Impact on disinter mediation and re-intermediation
		Global market; Strategy of traditional department stores
SUNDAY - 19.03.2023		

8	March (20-25)	
		CONDITIONAL TEST
		Products in b2c model; success factors of e-brokers; Broker-based services on-line
		SUNDAY - 26.03.2023
HOLIDAY 23.03.2023 Shaheedi Diwas		
9	March (27-31) April (1)	
		Online travel tourism services; Benefits and impact of e-commerce on travel industry
		Deal estate market; online stock trading and its benefits
		HOLIDAY - 30.03.2023 (Ram Navmi)
SUNDAY - 02.04.2023		
9	April (3-8)	
		Online banking and its benefits; Online financial services and their future
		E-auctions – benefits, implementation and impact
		ASSIGNMENT-2
HOLIDAY - 04.04.2023 (Mahavir Jayanti)		
SUNDAY - 09.04.2023		
10	April (10-15)	
		Applications in B2B: Key technologies for b2b
		architectural models of b2b, characteristics of the supplier –oriented marketplace
		SUNDAY - 16.04.2023
HOLIDAY - 14.04.2023 (DR.B.R.Ambedkar Jayanti)		
11	April (17-21)	
		buyer-oriented marketplace and intermediary-oriented marketplace
		Just In Time delivery in b2b; Internet-based EDI from traditional EDI
		SUNDAY - 23.04.2023
Holiday Id-UI-Fitr/Parshuram Jayanti (Saturday)		
12	April (24-29)	
		Marketing Issues in b2b. Emerging Business models: Retail model
		Media model; advisory model, made-to-order manufacturing model
		Do-it- yourself model; Information service model; Emerging hybrid
SUNDAY - 30.04.2023		
13	May (1-6)	
		CLASS TEST
		models ,Emerging models in India
		Internet & E-Commerce scenario in India
SUNDAY - 07.05.2023		
14	May (8-13)	
		Internet security Issues
		Legal aspects of E-commerce
		REVISION
SUNDAY - 14.05.2023		
14	May (15-16)	
Examination 17.05.2023 Onwards.		

I.B. (PG) COLLEGE, PANIPAT

LESSON PLAN

SESSION 2022-23 (01.02.2023 to 16.05.2023)

Weekly Lesson Plan Even Semester)

UG (IV - Semester)

Name of the Paper:- RDBMS

Class: BCA

Name of the Teachers (Section Wise) : Prof. Mohit

WEEK	DATE	TOPICS
1	February (1-4)	Relational Model Concepts
SUNDAY - 05.02.2023 Holiday (Guru Ravidass Jayanti)		
2	February (6-11)	Codd's Rules for Relational Model
		Relational Algebra:-Selection and Projection
		Set Operation
SUNDAY - 12.02.2023		
3	February (13-17)	Renaming, Join and Division
		Relational Calculus
		Tuple Relational Calculus
HOLIDAY - 18.02.2023 (Maha Shivratri)		
SUNDAY - 19.02.2023		
4	February (20-25)	Domain Relational Calculus
		Revised
		Functional Dependencies
SUNDAY - 26.02.2023		
5	February (27-28) March (1-4)	Normalization:-Purpose
		Data Redundancy
		Update Anomalies
SUNDAY - 05.03.2023		
Holi Vacations - 05.03.2023 to 12.03.2023		
7	March (13-18)	Functional Dependencies:-Full Functional Dependencies
		Transitive Functional Dependencies
		Characteristics of Functional Dependencies
SUNDAY - 19.03.2023		

8	March (20-25)	Revised
		Decomposition and Normal Forms
		1NF, 2NF
SUNDAY - 26.03.2023		
HOLIDAY 23.03.2023 Shaheedi Diwas		
9	March (27-31) April (1)	3NF & BCNF
		SQL: Data Definition and data types, SQL Operators
		Assignment-1
HOLIDAY - 30.03.2023 (Ram Navmi)		
SUNDAY - 02.04.2023		
9	April (3-8)	Specifying Constraints in SQL
		Basic DDL, DML
HOLIDAY - 04.04.2023 (Mahavir Jayanti)		
SUNDAY - 09.04.2023		
10	April (10-15)	DCL commands in SQL
		Revised
SUNDAY - 16.04.2023		
HOLIDAY - 14.04.2023 (DR.B.R.Ambedkar Jayanti)		
11	April (17-21)	Simple Queries, Nested Queries
		Tables, Views
		Indexes, Aggregate Functions
SUNDAY - 23.04.2023		
Holiday Id-UI-Fitr/Parshuram Jayanti (Saturday)		
12	April (24-29)	Clauses, PL/SQL architecture
		PL/SQL and SQL*Plus
		PL/SQL Basics, Advantages of PL/SQL
SUNDAY - 30.04.2023		
13	May (1-6)	The Generic PL/SQL Block: PL/SQL Execution Environment
		PL/SQL Character set and Data Types
		Assignment -2
SUNDAY - 07.05.2023		
14	May (8-13)	Control Structure in PL/SQL
		Cursors in PL/SQL, Triggers in PL/SQL
		Programming using PL/SQL
SUNDAY - 14.05.2023		
14	May (15-16)	Queries on Problem
		Queries on Problem
Examination 17.05.2023 Onwards.		

I.B. (PG) COLLEGE, PANIPAT

LESSON PLAN

SESSION 2022-23 (01.02.2023 to 16.05.2023)

Weekly Lesson Plan Even Semester)

UG (II / IV / VI - Semester) : IV Semester

Name of the Paper:- COMPUTER-ORIENTED STATISTICAL METHODS Class: BCA-II

Name of the Teachers (Section Wise) : Ashwani Gupta

WEEK	DATE	TOPICS
1	February (1-4)	Statistics: Preparing Frequency Distribution Table and
		Cumulative frequency,
SUNDAY - 05.02.2023 Holiday (Guru Ravidass Jayanti)		
2	February (6-11)	Measure of Central Tendency, Types:
		Arithmetic mean, Geometric Mean, Harmonic Mean,
		Median, Mode.
SUNDAY - 12.02.2023		
3	February (13-17)	Measure of Central Tendency, Types:
		Arithmetic mean, Geometric Mean, Harmonic Mean,
		Median, Mode.
HOLIDAY - 18.02.2023 (Maha Shivratri)		
SUNDAY - 19.02.2023		
4	February (20-25)	Measure of Dispersion: Range, Quartile Deviation,
		Coefficient of mean Deviation, Standard Deviation
		mean deviation,
		Measure of Dispersion: Range, Quartile Deviation,
		Coefficient of mean Deviation, Standard Deviation
mean deviation,		
SUNDAY - 26.02.2023		
5	February (27-28) March (1-4)	Moments : Moments About mean, Moments about any point, Moment
		about origin, Moment about mean in terms of moment about any point,
		Moment about any point in terms of Moment about mean
SUNDAY - 05.03.2023		
Holi Vacations - 05.03.2023 to 12.03.2023		
7	March (13-18)	Correlation: Introduction, Types, Properties, Methods of Correlation:
		Karl Pearson's Coefficient of Correlation, Rank Correlation and
		Concurrent Deviation method, Probable error.
SUNDAY - 19.03.2023		

8	March (20-25)	Correlation: Introduction, Types, Properties, Methods of Correlation:
		Karl Pearson's Coefficient of Correlation, Rank Correlation and
		Concurrent Deviation method, Probable error.
SUNDAY - 26.03.2023		
HOLIDAY 23.03.2023 Shaheedi Diwas		
9	March (27-31) April (1)	Curve Fitting: Straight Line, Parabolic curve, Geometric Curve and
		Exponential Curve
		Baye's Theorem in Decision Making, Forecasting Techniques
HOLIDAY - 30.03.2023 (Ram Navmi)		
SUNDAY - 02.04.2023		
9	April (3-8)	Curve Fitting: Straight Line, Parabolic curve, Geometric Curve and
		Exponential Curve
		Baye's Theorem in Decision Making, Forecasting Techniques
HOLIDAY - 04.04.2023 (Mahavir Jayanti)		
SUNDAY - 09.04.2023		
10	April (10-15)	Types: Binomial, Poisson, Normal Distribution, Mean and Variance of
		Binomial, Poisson, and Normal Distribution
SUNDAY - 16.04.2023		
HOLIDAY - 14.04.2023 (DR.B.R.Ambedkar Jayanti)		
11	April (17-21)	Types: Binomial, Poisson, Normal Distribution, Mean and Variance of
		Binomial, Poisson, and Normal Distribution
SUNDAY - 23.04.2023		
Holiday Id-UI-Fitr/Parshuram Jayanti (Saturday)		
12	April (24-29)	Sample introduction, Sampling: Meaning, methods of Sampling,
		Statistical Inference: Test of Hypothesis, Types of hypothesis,
		Procedure of hypothesis Testing, Type I and Type II error, One Tailed
		and two tailed Test,
SUNDAY - 30.04.2023		
13	May (1-6)	Types of test of Significance: Test of significance
		for Attribute-Test of No. of success and test of proportion of success,
		Test of significance for large samples - Test of significance for single
		mean and Difference of mean
SUNDAY - 07.05.2023		
14	May (8-13)	Test of significance for small samples
		(t-test) – test the significance between the mean of a random sample,
		between the mean of two independent samples
SUNDAY - 14.05.2023		
14	May (15-16)	Revision & Test
		Revision & Test
Examination 17.05.2023 Onwards.		

I.B. (PG) COLLEGE, PANIPAT

LESSON PLAN

SESSION 2022-23 (01.02.2023 to 16.05.2023)

Weekly Lesson Plan Even Semester)

UG (IV - Semester)

Name of the Paper:- Management Information System Class: BCA

Name of the Teachers (Section Wise) : Prof. Mohit

WEEK	DATE	TOPICS
1	February (1-4)	Introduction to system and Basic System Concepts
SUNDAY - 05.02.2023 Holiday (Guru Ravidass Jayanti)		
2	February (6-11)	Types of Systems
		The Systems Approach
		Information System: Definition & Characteristics
SUNDAY - 12.02.2023		
3	February (13-17)	Types of information
		Role of Information in Decision- Making
		Sub-Systems of an Information system
HOLIDAY - 18.02.2023 (Maha Shivratri)		
SUNDAY - 19.02.2023		
4	February (20-25)	EDP and MIS management levels, EDP/MIS/DSS
		Revised
		An overview of Management Information System
SUNDAY - 26.02.2023		
5	February (27-28) March (1-4)	Definition & Characteristics
		Components of MIS
		Frame Work for Understanding MIS
SUNDAY - 05.03.2023		
Holi Vacations - 05.03.2023 to 12.03.2023		
7	March (13-18)	Information requirements & Levels of Management
		Simon's Model of decision-Making
		Revised
SUNDAY - 19.03.2023		

8	March (20-25)	Structured Vs Un-structured decisions
		Assignment-1
		Formal vs. Informal systems
SUNDAY - 26.03.2023		
HOLIDAY 23.03.2023 Shaheedi Diwas		
9	March (27-31) April (1)	Revised
		Developing Information Systems
		Analysis & Design of Information Systems
HOLIDAY - 30.03.2023 (Ram Navmi)		
SUNDAY - 02.04.2023		
9	April (3-8)	Revised
		Implementation
HOLIDAY - 04.04.2023 (Mahavir Jayanti)		
SUNDAY - 09.04.2023		
10	April (10-15)	Evaluation
		Pitfalls in MIS Development
		Revised
SUNDAY - 16.04.2023		
HOLIDAY - 14.04.2023 (DR.B.R.Ambedkar Jayanti)		
11	April (17-21)	Functional MIS
		A Study of Personnel
		Financial and production MIS
SUNDAY - 23.04.2023		
Holiday Id-UI-Fitr/Parshuram Jayanti (Saturday)		
12	April (24-29)	Revised
		Revised
		Introduction to e-business systems
SUNDAY - 30.04.2023		
13	May (6)	ecommerce - technologies
		applications
		(1- Assignment-2
SUNDAY - 07.05.2023		
14	May (8-13)	Decision support systems
		support systems for planning
		control and decision-making
SUNDAY - 14.05.2023		
14	May (15-16)	Revised
		Revised
Examination 17.05.2023 Onwards.		