

# I.B. (PG) COLLEGE, PANIPAT

SESSION 2020-2021

Weekly Lesson Plan (Even Semester) UG ( 4th Semester)

Name of the Paper:-Advanced Data Structures Class: BCA-II

Name of the Teachers :- Ashwani Gupta

WEEK	DATE	TOPICS
1	April (19-20) , (22-24)	
		Sorting: Internal & external sorting,
<b>HOIDAY - 21.04.2021 (Ram Navami)</b>		
<b>SUNDAY &amp; Holiday (Mahavir Jayanti) 25.04.2021</b>		
2	April (26 -30)  May (1st)	
		Radix sort, Quick sort, Heap sort, Merge sort, Tournament sort,
<b>SUNDAY - 02.05.2021</b>		
3	May (03 - 08 )	
		Comparison of various sorting and searching algorithms on the basis of their complexity.
<b>SUNDAY - 09.05.2021</b>		
4	May (10-13 ) (15)	
		Files: Introduction Attributes of a file, Classification of files, Fileoperations,
<b>HOLIDAY - 14.05.2021 (Id-ul-Fitr / Parshuram Jayanti)</b>		
<b>SUNDAY - 16.05.2021</b>		
5	May (17-22)	
		Comparison of various types of files, Sequential, Indexed-sequential, Random-access file.

SUNDAY - 23.05.2021		
6	May (24-29)	
		Hashing: Introduction, Collision resolution
SUNDAY - 30.05.2021		
7	May (31)	
	June (1 - 5)	Graph: Introduction, Graph theory terminology,
		Sequential and linked representation of graphs,
		operations on graphs
SUNDAY - 06.06.2021		
8	June (7-12)	
		traversal algorithms in
		graphs and their implementation,
		<b>First &amp; Second Assignment</b>
SUNDAY & Holiday (Maharana Pratap Jayanti) 13.06.2021		
9	June (14 -19)	
		Warshall's algorithm for shortest
		path, Dijkstra algorithm for shortest path.
SUNDAY - 20.06.2021		
10	June (21-23)	
	June (25 - 26)	Tree: Introduction, Definition,
		Traversing binary trees,
		Representing Binary tree in memory,
HOLIDAY - 24.06.2021 (Sant Kabir Jayanti)		
SUNDAY - 27.06.2021		
11	June (28-30)	
	July (1-3)	Traversal algorithms using stacks,
		Searching, Insertion and deletion in
		a Binary search tree,

SUNDAY - 04.07.2021		
12	July (5 - 10)	
		Huffman's algorithm, General trees.
		Revision & Test
SUNDAY - 11 .07.2021		
13	July (12)	

# I.B. (PG) COLLEGE, PANIPAT

SESSION 2020-2021

Weekly Lesson Plan (Even Semester) UG (4th Semester)

Name of the Paper:- Advance Programming using C++

Class: BCA II Year

Name of the Teachers (Section wise): Prof. Vinay Bharti

WEEK	DATE	TOPICS
1	April (19-20), (22-24)	INTRODUCTION OF DYNAMIC POLYMORPHISM
		Function Overriding, Virtual Function and its Need
HOLIDAY - 21.04.2021 (Ram Navami)		
SUNDAY & Holiday (Mahavir Jayanti) 25.04.2021		
2	April (26 -30)	Pure Virtual Function, Abstract Class, Virtual Derivation
		Virtual Destructor
	May (1st)	
SUNDAY - 02.05.2021		
3	May (03 - 08 )	Type Conversion: Basic Type Conversion,
		Conversion between objects and basic types,
SUNDAY - 09.05.2021		
4	May (10-13 ) (15)	Conversion between objects of different classes, Inheritance
		Rules of Derivations – Private, Protected and Public Derivations
HOLIDAY - 14.05.2021 (Id-ul-Fitr / Parshuram Jayanti)		
SUNDAY - 16.05.2021		
5	May (17-22)	Single, Multiple, Multilevel, Hierarchical
		and Multipath Inheritance

<b>SUNDAY - 23.05.2021</b>		
6	May (24-29)	Assignment I
		Roles of Constructors and Destructors in
		Inheritance, Genericity in C++
<b>SUNDAY - 30.05.2021</b>		
7	May (31)	Templates in C++, Function templates
	June (1 - 5)	
<b>SUNDAY - 06.06.2021</b>		
8	June (7-12)	Conditional Test
		Class templates in C++
<b>SUNDAY &amp; Holiday (Maharana Pratap Jayanti) 13.06.2021</b>		
9	June (14 -19)	Assignment II
		Exception Handling in C++: try, throw and
		catch
<b>SUNDAY - 20.06.2021</b>		
10	June (21-23) (25 - 26)	Query Session
		Files I/O in C++: Class Hierarchy for Files I/O
<b>HOLIDAY - 24.06.2021 (Sant Kabir Jayanti)</b>		
<b>SUNDAY - 27.06.2021</b>		
11	June (28-30)	Text versus Binary Files, Opening and Closing Files
	July (1-3)	

<b>SUNDAY - 04.07.2021</b>		
<b>12</b>	<b>July (5 - 10)</b>	File Pointers, Operation on files
		Revision
<b>SUNDAY - 11 .07.2021</b>		
<b>13</b>	<b>July (12)</b>	Revision

# I.B. (PG) COLLEGE, PANIPAT

SESSION 2020-2021

Weekly Lesson Plan (Even Semester)      **UG**      **( 4th Semester)**

Name of the Paper:-     E-Commerce                          Class:   BCA II  

Name of the Teachers (Section wise):   GEETIKA NARANG  

WEEK	DATE	TOPICS
1	April (19-20) , (22-24)	Introduction to E-Commerce:-Business operations
		E-commerce practices vs. traditional business practices
		concepts of b2b, b2c
		c2c,b2g,g2h,g2c
Features of E-Commerce		
<b>HOIDAY - 21.04.2021 (Ram Navami)</b>		
<b>SUNDAY &amp; Holiday (Mahavir Jayanti) 25.04.2021</b>		
2	April (26 -30)  May (1st)	Types of Ecommerce Systems, Elements of E-Commerce
		principles of E-Commerce
		Benefits and Limitations of E-Commerce
		Management Issues relating to e-commerce
		Operations of E-commerce: Credit card transaction
		Secure Hypertext Transfer Protocol (SHTP) ; Electronic payment systems
<b>SUNDAY - 02.05.2021</b>		
3	May (03 - 08 )	Secure electronic transaction (SET) ; SET's encryption
		Process; Cybercash
		Smart cards; Indian payment models
		Class Discussion
		Applications in governance: EDI in governance
		E-government; E-Governance applications of Internet
<b>SUNDAY - 09.05.2021</b>		
4	May (10-13 ) (15)	concept of government –to- business, business-to-government
		citizen-to-government And Assignment 1
		E-governance models
		Continue
		Private sector interface in Egovernance
<b>HOLIDAY - 14.05.2021 (Id-ul-Fitr / Parshuram Jayanti)</b>		
<b>SUNDAY - 16.05.2021</b>		
5	May (17-22)	Applications in B2C: Consumers shopping procedure on the Internet
		Impact on disinter mediation and re-intermediation
		Global market
		Strategy of traditional department stores
		Conditional test
		Products in b2c model

<b>SUNDAY - 23.05.2021</b>		
6	May (24-29)	success factors of e-brokers; Broker-based services on-line
		Online travel tourism services
		Benefits and impact of e-commerce on travel industry
		Deal estate market; online stock trading and its benefits
		online stock trading benefits
		Online banking
<b>SUNDAY - 30.05.2021</b>		
7	May (31)	Online banking benefits
	June (1 - 5)	Online financial services and their future
		Assignment2 and Class Discussion
		E-auctions – benefits
		implementation
		impact
<b>SUNDAY - 06.06.2021</b>		
8	June (7-12)	Applications in B2B
		Key technologies for b2b
		architectural models of b2b
		Continue
		characteristics of the supplier
		oriented marketplace
<b>SUNDAY &amp; Holiday (Maharana Pratap Jayanti) 13.06.2021</b>		
9	June (14 -19)	buyer-oriented marketplace
		intermediary-oriented marketplace
		Just In Time delivery in b2b
		Internet-based EDI from traditional EDI
		Marketing Issues in b2b
		Emerging Business models: Retail model
<b>SUNDAY - 20.06.2021</b>		
10	June (21-23) (25 - 26)	Media model
		advisory model
		made-to-order manufacturing model
		Do-it- yourself model
		Information service model
<b>HOLIDAY - 24.06.2021 (Sant Kabir Jayanti)</b>		
<b>SUNDAY - 27.06.2021</b>		
11	June (28-30)	Emerging hybrid models
	July (1-3)	Class Discussion
		Emerging models in India
		Continue
		Internet & E-Commerce scenario in India
	Continue	



<b>SUNDAY - 04.07.2021</b>		
<b>12</b>	<b>July (5 - 10)</b>	Class Discussion
		Internet security Issues
		Legal aspects of E-commerce
		Revision
		Revision
<b>SUNDAY - 11 .07.2021</b>		
<b>13</b>	<b>July (12)</b>	Revision

# I.B. (PG) COLLEGE, PANIPAT

SESSION 2020-2021

Weekly Lesson Plan (Even Semester) UG ( 4th Semester)

Name of the Paper:- Relational Database Management System

Class: BCA II Year

Name of the Teachers (Section wise): DEEPTY JUNEJA

WEEK	DATE	TOPICS
1	April (19-20), (22-24)	Relational Model Concepts
		Codd's Rule for Relational Model
<b>HOIDAY - 21.04.2021 (Ram Navami)</b>		
<b>SUNDAY &amp; Holiday (Mahavir Jayanti) 25.04.2021</b>		
2	April (26 -30)	Relational Algebra (Selection, Projection)
		Relational Algebra (Set Operators)
		Renaming,Join & Division
	May (1st)	
<b>SUNDAY - 02.05.2021</b>		
3	May (03 - 08 )	Introduction Relational Calculus
		Tuple Relational Calculus
		Domain Relational Calculus
<b>SUNDAY - 09.05.2021</b>		
4	May (10-13 ) (15)	Functional Dependencies & Introduction of Normal Forms
		Purpose of Normalization, Data Redundancy
		Update Anomalies,Functional Dpendancy
<b>HOLIDAY - 14.05.2021 (Id-ul-Fitr / Parshuram Jayanti)</b>		
<b>SUNDAY - 16.05.2021</b>		

5	May (17-22)	Partial/ Fully Functional Dependency
		Transitive functional Dependency, Characteristics of Functional Dependency
		Normal Forms(1NF)
<b>SUNDAY - 23.05.2021</b>		
6	May (24-29)	2NF
		3NF
		BCNF
<b>SUNDAY - 30.05.2021</b>		
7	May (31)	Assignment I
	June (1 - 5)	Query Session
		Conditional Test
<b>SUNDAY - 06.06.2021</b>		
8	June (7-12)	Introduction, definition & data types of SQL
		SQL Operators, Constraint in SQL
		DDI Commands
<b>SUNDAY &amp; Holiday (Maharana Pratap Jayanti) 13.06.2021</b>		
9	June (14 -19)	DML Commands
		DCL Commands
		Conditional Test

SUNDAY - 20.06.2021		
10	June (21-23) (25 - 26)	Simple & Nested Queries
		Views
		Indexes
HOLIDAY - 24.06.2021 (Sant Kabir Jayanti)		
SUNDAY - 27.06.2021		
11	June (28-30)	Aggregate functions,Clauses
		Basics of PL/SQL ,PL/SQL Architecture,PL/SQL SQL*Plus
	July (1-3)	Advantage of PL/SQL,PL/SQL Block,Execution Statement
SUNDAY - 04.07.2021		
12	July (5 - 10)	PL/SQL Character set ,Data types, Declaration of variable, assignment of variable
		Control Structure in PL/SQL
		Cursors
SUNDAY - 11 .07.2021		
13	July (12)	Triggers

# I.B. (PG) COLLEGE, PANIPAT

SESSION 2020-2021

Weekly Lesson Plan (Even Semester) UG ( 4th Semester)

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

Name of the Teachers : Ashwani Gupta

WEEK	DATE	TOPICS
1	April (19-20) , (22-24)	
		Statistics: Preparing Frequency Distribution Table and Cumulative frequency,
HOIDAY - 21.04.2021 (Ram Navami)		
SUNDAY & Holiday (Mahavir Jayanti) 25.04.2021		
2	April (26 -30)	
		Measure of Central Tendency, Types: Arithmetic mean, Geometric Mean, Harmonic Mean,
	May (1st)	Median, Mode.
SUNDAY - 02.05.2021		
3	May (03 - 08 )	
		Measure of Dispersion: Range, Quartile Deviation, Coefficient of mean Deviation, Standard Deviation
		mean deviation,
SUNDAY - 09.05.2021		
4	May (10-13 ) (15)	
		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
HOLIDAY - 14.05.2021 (Id-ul-Fitr / Parshuram Jayanti)		
SUNDAY - 16.05.2021		
5	May (17-22)	
		Correlation: Introduction, Types, Properties, Methods of Correlation:
		Karl Pearson's Coefficient of Correlation, Rank Correlation and Concurrent Deviation method, Probable error.

SUNDAY - 23.05.2021		
6	May (24-29)	
		Regression: Introduction, Aim of Regression Analysis, Types of
		Regression Analysis, Lines of Regression, Properties of Regression
		Coefficient and Regression Lines, Comparison with Correlation.
SUNDAY - 30.05.2021		
7	May (31)	
	June (1 - 5)	Curve Fitting: Straight Line, Parabolic curve, Geometric Curve and
		Exponential Curve
		Baye's Theorem in Decision Making, Forecasting Techniques
<b>First &amp; Second Assignment</b>		
SUNDAY - 06.06.2021		
8	June (7-12)	
		Types: Binomial, Poisson, Normal Distribution, Mean and Variance of
		Binomial, Poisson, and Normal Distribution
SUNDAY & Holiday (Maharana Pratap Jayanti) 13.06.2021		
9	June (14 -19)	
		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 - 20.06.2021		
10	June (21-23) (25 - 26)	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
HOLIDAY - 24.06.2021 (Sant Kabir Jayanti)		
SUNDAY - 27.06.2021		
11	June (28-30)	
	July (1-3)	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 - 04.07.2021		
12	July (5 - 10)	
		Revision & Test
SUNDAY - 11 .07.2021		
13	July (12)	

# I.B. (PG) COLLEGE, PANIPAT

SESSION 2020-2021

Weekly Lesson Plan (Even Semester) UG ( 4th Semester)

Name of the Paper:- Management Information System (MIS) Class: BCA II

Name of the Teachers (Section wise): Mr. Ajmer Singh

WEEK	DATE	TOPICS
1	April (19-20) , (22-24)	
		Introduction to system and Basic System Concepts
		Types of Systems
		Information System: Definition
HOIDAY - 21.04.2021 (Ram Navami)		
SUNDAY & Holiday (Mahavir Jayanti) 25.04.2021		
2	April (26 -30)  May (1st)	
		Characteristics, Types of information, Role of Information in Decision- Making
		Continue
SUNDAY - 02.05.2021		
3	May (03 - 08 )	
		Sub-Systems of an Information system: EDP and MIS management levels
		EDP/MIS/DSS Continue
SUNDAY - 09.05.2021		
4	May (10-13 ) (15)	
		Frame Work for Understanding MIS Simon's Model of decision making
		Continue
HOLIDAY - 14.05.2021 (Id-ul-Fitr / Parshuram Jayanti)		
SUNDAY - 16.05.2021		
5	May (17-22)	
		Structured Vs Un-structured decisions, Formal vs. Informal system
		Continue



<b>SUNDAY - 23.05.2021</b>		
6	May (24-29)	
		Developing Information Systems
		Analysis & Design of Information Systems
<b>SUNDAY - 30.05.2021</b>		
7	May (31)	
	June (1 - 5)	
		Pitfalls in MIS Development.
		Functional MIS: Continue
<b>SUNDAY - 06.06.2021</b>		
8	June (7-12)	
		Introduction to e-business systems ecommerce – technologies and applications
		Decision support systems
<b>SUNDAY &amp; Holiday (Maharana Pratap Jayanti) 13.06.2021</b>		
9	June (14 -19)	
		Support systems for planning, Support system for control and decision-making
		Continue
<b>SUNDAY - 20.06.2021</b>		
10	June (21-23)	
	(25 - 26)	
<b>HOLIDAY - 24.06.2021 (Sant Kabir Jayanti)</b>		
<b>SUNDAY - 27.06.2021</b>		
11	June (28-30)	
	July (1-3)	

SUNDAY - 04.07.2021		
12	July (5 - 10)	
SUNDAY - 11 .07.2021		
13	July (12)	