

NBGSMS College
Lesson Plan July 2019- Nov 2019

Name of Assistant Professor	Annu Saini
Class :	BCA
Semester:	1
Subject:	Computer and programming fundamentals

	Day	Date	Topic
1st Week	1	16-Jul-19	Introduction to computers
	2	17-Jul-19	Definition and characteristics of computer
	3	18-Jul-19	Limitations of Computers
	4	19-Jul-19	Block Diagram along with its components
	5	20-Jul-19	Generations of Computers(1,2 generation)
	Sunday	21-Jul-19	
2nd Week	1	22-Jul-19	Generations of Computers(3,4,5 generations)
	2	23-Jul-19	Applications of computers in various fields
	3	24-Jul-19	Human-Being VS Computer
	4	25-Jul-19	classification of computers
	5	26-Jul-19	According to data representation techniques
	6	27-Jul-19	According to purpose
	Sunday	28-Jul-19	
3rd week	1	29-Jul-19	According to use
	2	30-Jul-19	Introduction to computer memory
	3	31-Jul-19	Holiday
	4	1-Aug-19	Characteristics terms of memory systems
	5	2-Aug-19	Type of storage, Memory hierarchy of memory
	6	3-Aug-19	Concept of primary and secondary memory
	Sunday	4-Aug-19	
4th week	1	5-Aug-19	Types of primary memory
	2	6-Aug-19	RAM , types of RAM
	3	7-Aug-19	Difference b/w static and dynamic RAM
	4	8-Aug-19	ROM ,types of ROM
	5	9-Aug-19	Difference b/w RAM and ROM
	6	10-Aug-19	Flash memory
	Sunday	11-Aug-19	
5th week	1	12-Aug-19	Holiday
	2	13-Aug-19	Cache memory
	3	14-Aug-19	Secondary storage
	4	15-Aug-19	Holiday
	5	16-Aug-19	advantages of secondary storage
	6	17-Aug-19	Methods of accessing data in secondary memory

	Sunday	18-Aug-19	
6th week	1	19-Aug-19	magnetic tape
	2	20-Aug-19	magnetic disk
	3	21-Aug-19	optical disks
	4	22-Aug-19	CD, DVD
	5	23-Aug-19	Comparison of all memory devices ,virtual memory,
	6	24-Aug-19	Holiday
	Sunday	25-Aug-19	
7th week	1	26-Aug-19	Concept of Hardware and software
	2	27-Aug-19	definition of software, types of software
	3	28-Aug-19	characteristics of software
	4	29-Aug-19	relationship between hardware and software
	5	30-Aug-19	Input devices (keyboard ,pointing devices)
	6	31-Aug-19	Input devices(Scanners,digitizers,voice systems)
	Sunday	1-Sep-19	
8th week	1	2-Sep-19	Output devices(monitor and its types)
	2	3-Sep-19	Printers , types of printers
	3	4-Sep-19	Impact printers(dot matrix , daisy wheel printers)
	4	5-Sep-19	impact printers (line printers)
	5	6-Sep-19	Non impact printers(laser ,inkjet printers)
	6	7-Sep-19	Overview of operating system: Definition
	Sunday	8-Sep-19	
9th week	1	9-Sep-19	functions of operating system
	2	10-Sep-19	single-user & multi-user operating system
	3	11-Sep-19	concept of multiprogramming, multitasking
	4	12-Sep-19	multithreading,multiprocessing, time-sharing, real time,
	5	13-Sep-19	Computer Virus: Definition, types of viruses
	6	14-Sep-19	Characteristics of viruses, anti-virus software
	Sunday	15-Sep-19	
10th week	1	16-Sep-19	Introduction to Computer Languages, Analogy with NL
	2	17-Sep-19	machine language(adv and disadv)
	3	18-Sep-19	assembly language(adv and disadv)
	4	19-Sep-19	high-level languages, forth generation languages
	5	20-Sep-19	compiler, interpreter, assembler
	6	21-Sep-19	Linker, Loader
	Sunday	22-Sep-19	
11th week	1	23-Sep-19	Holiday
	2	24-Sep-19	characteristics of a good programming language
	3	25-Sep-19	Planning the Computer Program:
	4	26-Sep-19	Concept of problem solving
	5	27-Sep-19	Problem definition, Program design,

	6	28-Sep-19	Debugging
	Sunday	29-Sep-19	
12th week	1	30-Sep-19	process of debugging
	2	1-Oct-19	Types of errors in programming
	3	2-Oct-19	Holiday
	4	3-Oct-19	Documentation
	5	4-Oct-19	Structured programming concepts
	6	5-Oct-19	Programming methodologies viz. top-down prog.
	Sunday	6-Oct-19	
13th week	1	7-Oct-19	Programming methodologies viz. bottom up prog.
	2	8-Oct-19	Holiday
	3	9-Oct-19	Advantages and disadvantages of Structured prog.
	4	10-Oct-19	An introduction to computer networking
	5	11-Oct-19	Need of networking
	6	12-Oct-19	advantages of computer networks
	Sunday	13-Oct-19	
14th week	1	14-Oct-19	Network types
	2	15-Oct-19	LAN
	3	16-Oct-19	MAN
	4	17-Oct-19	Holiday
	5	18-Oct-19	WAN
	6	19-Oct-19	Network topologies
	Sunday	20-Oct-19	
15th week	1	21-Oct-19	Star topology(merits and demerits)
	2	22-Oct-19	ring topology(merits and demerits)
	3	23-Oct-19	Tree topology(merits and demerits)
	4	24-Oct-19	Vacations
	5	25-Oct-19	
	6	26-Oct-19	
	Sunday	27-Oct-19	
16th week	1	28-Oct-19	
	2	29-Oct-19	
	3	30-Oct-19	
	4	31-Oct-19	Graph topology(merits and demerits)
	5	1-Nov-19	Holiday
	6	2-Nov-19	Mesh topology(merits and demerits)
	Sunday	3-Nov-19	
17th week	1	4-Nov-19	Hybrid topology(merits and demerits)
	2	5-Nov-19	Modes of data transmission
	3	6-Nov-19	Forms of data transmission
	4	7-Nov-19	Transmission channels(media)

	5	8-Nov-19	Guided media
	6	9-Nov-19	Unguided media
	Sunday	10-Nov-19	
18th week	1	11-Nov-19	Introduction to internet,Uses of internet
	2	12-Nov-19	Applications of internet
	3	13-Nov-19	Hardware and Software requirements for internet,
	4	14-Nov-19	Intranet,Applications of intranet
	5	15-Nov-19	Difference b/w internet and intranet
	6	16-Nov-19	Revision
	Sunday	17-Nov-19	
Class :	BCA		
Semester:	3		
Subject:	Introduction to database systems		
	Day	Date	Topic
1st Week	1	16-Jul-19	Introduction to database systems
	2	17-Jul-19	Basic Concepts – Data, Information Records and files
	3	18-Jul-19	Traditional file –based Systems
	4	19-Jul-19	File Based Approach and its limitations
	5	20-Jul-19	Database Approach
	Sunday	21-Jul-19	
2nd Week	1	22-Jul-19	Characteristics of Database Approach
	2	23-Jul-19	Advantages of Database Approach
	3	24-Jul-19	disadvantages of Database Approach
	4	25-Jul-19	components of database system
	5	26-Jul-19	Database Management System (DBMS)
	6	27-Jul-19	Components of DBMS Environment
	Sunday	28-Jul-19	
3rd week	1	29-Jul-19	DBMS Functions
	2	30-Jul-19	Components of DBMS
	3	31-Jul-19	Holiday
	4	1-Aug-19	DBMS users
	5	2-Aug-19	Advantages of DBMS
	6	3-Aug-19	disadvantages of DBMS
	Sunday	4-Aug-19	
4th week	1	5-Aug-19	DBMS languages
	2	6-Aug-19	Roles in the Database Environment
	3	7-Aug-19	Role of Database Administrator
	4	8-Aug-19	Role of Database Designers
	5	9-Aug-19	Role of Applications Developers
	6	10-Aug-19	Different users of dbms systems

	Sunday	11-Aug-19	
5th week	1	12-Aug-19	Holiday
	2	13-Aug-19	Concept of data abstraction
	3	14-Aug-19	Relationships in DBMS
	4	15-Aug-19	Holiday
	5	16-Aug-19	Database schema
	6	17-Aug-19	Database instances
	Sunday	18-Aug-19	
6th week	1	19-Aug-19	Types of schema and subschemas
	2	20-Aug-19	Database System Architecture
	3	21-Aug-19	Three Levels of Architecture
	4	22-Aug-19	External level of DBMS architecture
	5	23-Aug-19	Conceptual level of DBMS architecture
	6	24-Aug-19	Holiday
	Sunday	25-Aug-19	
7th week	1	26-Aug-19	Internal Levels level of DBMS architecture
	2	27-Aug-19	Advantages of three level architecture
	3	28-Aug-19	Mappings in DBMS
	4	29-Aug-19	External/conceptual mapping
	5	30-Aug-19	Conceptual /internal mapping
	6	31-Aug-19	Data Independence
	Sunday	1-Sep-19	
8th week	1	2-Sep-19	Logical Data Independence
	2	3-Sep-19	Physical Data Independence
	3	4-Sep-19	Diff. b/w Logical and Physical Data Independence
	4	5-Sep-19	Classification of Database Management System
	5	6-Sep-19	Centralized architecture of DBMS
	6	7-Sep-19	Adv. and disadv. of centralized architecture
	Sunday	8-Sep-19	
9th week	1	9-Sep-19	Client Server architecture to DBMS
	2	10-Sep-19	Adv and disadv of Client Server architecture to DBMS
	3	11-Sep-19	Approaches to implement client/server architecture
	4	12-Sep-19	Introduction to Data Models
	5	13-Sep-19	Records- based Data Models
	6	14-Sep-19	Object-based Data Model
	Sunday	15-Sep-19	
10th week	1	16-Sep-19	Physical Data Models
	2	17-Sep-19	Conceptual Modeling
	3	18-Sep-19	Comparison of various data models
	4	19-Sep-19	Introduction to Entity-Relationship Model
	5	20-Sep-19	Entity Types, Entity Sets

	6	21-Sep-19	Attributes Relationship Types
	Sunday	22-Sep-19	
11th week	1	23-Sep-19	Holiday
	2	24-Sep-19	Relationship Instances
	3	25-Sep-19	ER Diagrams
	4	26-Sep-19	Data abstraction
	5	27-Sep-19	Data integration
	6	28-Sep-19	Basic Concepts of Hierarchical Data Model
	Sunday	29-Sep-19	
12th week	1	30-Sep-19	Basic Concepts of Network Data Model
	2	1-Oct-19	Relational Data Model
	3	2-Oct-19	Holiday
	4	3-Oct-19	Relational Model Terminology
	5	4-Oct-19	Relational Data Structure
	6	5-Oct-19	Database Relations
	Sunday	6-Oct-19	Properties of Relations
13th week	1	7-Oct-19	Keys,
	2	8-Oct-19	Holiday
	3	9-Oct-19	Different types of keys
	4	10-Oct-19	Domains
	5	11-Oct-19	Integrity Constraints over Relations
	6	12-Oct-19	Relational algebra
	Sunday	13-Oct-19	
14th week	1	14-Oct-19	Relational calculus
	2	15-Oct-19	Relational database design
	3	16-Oct-19	Functional dependencies
	4	17-Oct-19	Holiday
	5	18-Oct-19	Modification anomalies
	6	19-Oct-19	Normal forms (1 NF)
	Sunday	20-Oct-19	Normal forms (2 NF)
15th week	1	21-Oct-19	Normal forms (3 NF)
	2	22-Oct-19	Normal forms (BCNF)
	3	23-Oct-19	Normal forms (4 NF)
	4	24-Oct-19	Vacations
	5	25-Oct-19	
	6	26-Oct-19	
	Sunday	27-Oct-19	
16th week	1	28-Oct-19	
	2	29-Oct-19	
	3	30-Oct-19	
	4	31-Oct-19	Normal forms (5 NF)

	5	1-Nov-19	Holiday
	6	2-Nov-19	computing closures of set FDs
	Sunday	3-Nov-19	
17th week	1	4-Nov-19	SQL: Data types, Basic Queries in SQL
	2	5-Nov-19	Insert, Delete and Update Statements, views
	3	6-Nov-19	General strategies of query processing
	4	7-Nov-19	query optimization
	5	8-Nov-19	query processor
	6	9-Nov-19	concept of security
	Sunday	10-Nov-19	
18th week	1	11-Nov-19	Concurrency control
	2	12-Nov-19	Recovery in DBMS
	3	13-Nov-19	Revision
	4	14-Nov-19	Revision
	5	15-Nov-19	Revision
	6	16-Nov-19	Revision
	Sunday	17-Nov-19	

Class :	BCA
Semester:	5
Subject:	Data Communication and Networking

	Day	Date	Topic
1st Week	1	16-Jul-19	Introduction to Computer Communications
	2	17-Jul-19	Networking Technologies
	3	18-Jul-19	Uses of Computer Networks
	4	19-Jul-19	Network Devices
	5	20-Jul-19	Nodes, and Hosts
	Sunday	21-Jul-19	
2nd Week	1	22-Jul-19	Types of Computer Networks
	2	23-Jul-19	Network topologies
	3	24-Jul-19	Network topologies
	4	25-Jul-19	Network Software: Network Design issues
	5	26-Jul-19	Network Protocols
	6	27-Jul-19	Connection-Oriented and Connectionless Services
	Sunday	28-Jul-19	
3rd week	1	29-Jul-19	Network Applications and Application Protocols
	2	30-Jul-19	Computer Communications

	3	31-Jul-19	Holiday
	4	1-Aug-19	N/w models: Decentralized and Centralized Sys.
	5	2-Aug-19	Distributed Systems, Client/Server Model
	6	3-Aug-19	Peer-to-Peer Model, Web- Based Model
	Sunday	4-Aug-19	
4th week	1	5-Aug-19	Network Architecture
	2	6-Aug-19	The OSI Reference Model
	3	7-Aug-19	The OSI Reference Model
	4	8-Aug-19	TCP/IP reference model
	5	9-Aug-19	Example Networks: The Internet, X.25,
	6	10-Aug-19	Frame Relay
	Sunday	11-Aug-19	
5th week	1	12-Aug-19	Holiday
	2	13-Aug-19	ATM
	3	14-Aug-19	Analog and Digital Communications Concepts
	4	15-Aug-19	Holiday
	5	16-Aug-19	Concept of data, signal, channel
	6	17-Aug-19	bit-rate ,maximum data-rate of channel
	Sunday	18-Aug-19	
6th week	1	19-Aug-19	Represent Data as Analog Signals and Digital Signals
	2	20-Aug-19	Data Rate and Bandwidth
	3	21-Aug-19	Capacity, Baud Rate
	4	22-Aug-19	Asynchronous and synchronous transmission
	5	23-Aug-19	data encoding techniques
	6	24-Aug-19	Holiday
	Sunday	25-Aug-19	
7th week	1	26-Aug-19	data encoding techniques
	2	27-Aug-19	Modulation techniques
	3	28-Aug-19	Digital Carrier Systems
	4	29-Aug-19	Guided Transmission Media
	5	30-Aug-19	Wireless Transmission Media
	6	31-Aug-19	Communication Satellites
	Sunday	1-Sep-19	
8th week	1	2-Sep-19	Switching and its types
	2	3-Sep-19	Multiplexing and types
	3	4-Sep-19	Dialup Networking
	4	5-Sep-19	Analog Modem Concepts; DSL Service
	5	6-Sep-19	Introduction to Data Link Layer
	6	7-Sep-19	Framing
	Sunday	8-Sep-19	
9th week	1	9-Sep-19	Flow Control, Error Control

	2	10-Sep-19	Error Detection
	3	11-Sep-19	Error Correction
	4	12-Sep-19	Sliding Window Protocols
	5	13-Sep-19	Media Access Control
	6	14-Sep-19	Random Access Protocols
	Sunday	15-Sep-19	
10th week	1	16-Sep-19	Token Passing Protocols
	2	17-Sep-19	Token Ring
	3	18-Sep-19	Introduction to LAN technologies
	4	19-Sep-19	Ethernet
	5	20-Sep-19	switched Ethernet
	6	21-Sep-19	VLAN
	Sunday	22-Sep-19	
11th week	1	23-Sep-19	Holiday
	2	24-Sep-19	fast Ethernet, gigabit Ethernet
	3	25-Sep-19	token ring, FDDI
	4	26-Sep-19	Wireless LANs
	5	27-Sep-19	Bluetooth
	6	28-Sep-19	Network Hardware Components
	Sunday	29-Sep-19	
12th week	1	30-Sep-19	Repeaters, Hubs, Network Interface Cards
	2	1-Oct-19	PC Cards ,Bridges, Switches
	3	2-Oct-19	Holiday
	4	3-Oct-19	Routers, Gateways
	5	4-Oct-19	Network Layer and Routing Concepts
	6	5-Oct-19	Virtual Circuits
	Sunday	6-Oct-19	
13th week	1	7-Oct-19	Datagrams
	2	8-Oct-19	Holiday
	3	9-Oct-19	Routing Algorithms:Flooding
	4	10-Oct-19	Shortest Path Routing
	5	11-Oct-19	Shortest Path Routing numericals
	6	12-Oct-19	Distance Vector Routing
	Sunday	13-Oct-19	
14th week	1	14-Oct-19	Distance Vector Routing numerical
	2	15-Oct-19	Link State Routing
	3	16-Oct-19	Link State Routing numerical
	4	17-Oct-19	Holiday
	5	18-Oct-19	Hierarchical Routing
	6	19-Oct-19	Congestion Control
	Sunday	20-Oct-19	

15th week	1	21-Oct-19	Congestion Control methods
	2	22-Oct-19	Congestion Control methods
	3	23-Oct-19	Internetworking
	4	24-Oct-19	Vacations
	5	25-Oct-19	
	6	26-Oct-19	
	Sunday	27-Oct-19	
16th week	1	28-Oct-19	
	2	29-Oct-19	
	3	30-Oct-19	
	4	31-Oct-19	Internetworking devices
	5	1-Nov-19	Holiday
	6	2-Nov-19	Network Security Issues
	Sunday	3-Nov-19	
17th week	1	4-Nov-19	Security threats
	2	5-Nov-19	Different Security threats
	3	6-Nov-19	Encryption Methods
	4	7-Nov-19	Encryption Methods
	5	8-Nov-19	Authentication
	6	9-Nov-19	Symmetric Key Algorithms
	Sunday	10-Nov-19	
18th week	1	11-Nov-19	Symmetric Key Algorithms numerical
	2	12-Nov-19	Public-Key Algorithms
	3	13-Nov-19	Public-Key Algorithms numerical
	4	14-Nov-19	Revision of network securities
	5	15-Nov-19	Revision of data link layer
	6	16-Nov-19	Revision of OSI and TCP /IP model
	Sunday	17-Nov-19	

Class :	BCA
Semester:	1
Subject:	Software Lab

	Day	Date	Topic
1st Week	1	16-Jul-19	Understanding the basic parts of computer
	2	17-Jul-19	Learning basics of Windows
	3	18-Jul-19	Learning Basic components of windows
	4	19-Jul-19	Learning different icons, types of icons,
	5	20-Jul-19	Learning taskbar, activating windows, using desktop
	Sunday	21-Jul-19	

2nd Week	1	22-Jul-19	copying and moving files and folders
	2	23-Jul-19	Learning Control panel – display properties
	3	24-Jul-19	adding and removing software and hardware
	4	25-Jul-19	setting date and time, screensaver and appearance
	5	26-Jul-19	Working with MS-Word
	6	27-Jul-19	Learning word processing interface, Toolbars, Menus
	Sunday	28-Jul-19	
3rd week	1	29-Jul-19	Creating & Editing Document
	2	30-Jul-19	Formatting Document
	3	31-Jul-19	Holiday
	4	1-Aug-19	Finding and replacing text
	5	2-Aug-19	Format painter
	6	3-Aug-19	Header and footer
	Sunday	4-Aug-19	
4th week	1	5-Aug-19	Drop cap
	2	6-Aug-19	Auto-text
	3	7-Aug-19	Autocorrect
	4	8-Aug-19	Spelling and Grammar Tool
	5	9-Aug-19	Document Dictionary
	6	10-Aug-19	Page Formatting
	Sunday	11-Aug-19	
5th week	1	12-Aug-19	Holiday
	2	13-Aug-19	Bookmark
	3	14-Aug-19	Previewing and printing document
	4	15-Aug-19	Holiday
	5	16-Aug-19	Mail Merge
	6	17-Aug-19	Mail Merge
	Sunday	18-Aug-19	
6th week	1	19-Aug-19	Mail Merge
	2	20-Aug-19	Macros
	3	21-Aug-19	Macros
	4	22-Aug-19	Tables
	5	23-Aug-19	Tables
	6	24-Aug-19	Holiday
	Sunday	25-Aug-19	
7th week	1	26-Aug-19	Styles
	2	27-Aug-19	Template
	3	28-Aug-19	Template
	4	29-Aug-19	Resume making
	5	30-Aug-19	Word art
	6	31-Aug-19	Working with shapes , charts ,clip art
	Sunday	1-Sep-19	

8th week	1	2-Sep-19	Electronic Spread Sheet using MS-Excel
	2	3-Sep-19	Introduction to MS-Excel
	3	4-Sep-19	Cell, cell address
	4	5-Sep-19	Creating & Editing Worksheet
	5	6-Sep-19	Formatting and Essential Operations
	6	7-Sep-19	Formatting and Essential Operations
	Sunday	8-Sep-19	
9th week	1	9-Sep-19	Moving and copying data in excel
	2	10-Sep-19	Header and footer
	3	11-Sep-19	Formulas and Functions
	4	12-Sep-19	Formulas and Functions
	5	13-Sep-19	Formulas and Functions
	6	14-Sep-19	Formulas and Functions
	Sunday	15-Sep-19	
10th week	1	16-Sep-19	Formulas and Functions
	2	17-Sep-19	Formulas and Functions
	3	18-Sep-19	Formulas and Functions
	4	19-Sep-19	Formulas and Functions
	5	20-Sep-19	Charts
	6	21-Sep-19	Charts
	Sunday	22-Sep-19	
11th week	1	23-Sep-19	Holiday
	2	24-Sep-19	Charts
	3	25-Sep-19	Cell referencing, Page setup
	4	26-Sep-19	Macros
	5	27-Sep-19	Advance features of MS-Excel-Pivot table
	6	28-Sep-19	Pivot chart, Linking and Consolidation
	Sunday	29-Sep-19	
12th week	1	30-Sep-19	Database Management using Excel-Sorting
	2	1-Oct-19	Filtering
	3	2-Oct-19	Holiday
	4	3-Oct-19	Validation
	5	4-Oct-19	What if analysis with Goal Seek
	6	5-Oct-19	Conditional formatting
	Sunday	6-Oct-19	
13th week	1	7-Oct-19	Presentation using MS-PowerPoint
	2	8-Oct-19	Holiday
	3	9-Oct-19	Presentations, Creating, Manipulating Slides
	4	10-Oct-19	Enhancing Slides
	5	11-Oct-19	Organizational Charts
	6	12-Oct-19	Excel Charts,

	Sunday	13-Oct-19	
14th week	1	14-Oct-19	Word Art
	2	15-Oct-19	Layering art Objects
	3	16-Oct-19	Animations and Sounds
	4	17-Oct-19	Holiday
	5	18-Oct-19	Inserting Animated Pictures
	6	19-Oct-19	Accessing through Object
	Sunday	20-Oct-19	
15th week	1	21-Oct-19	Inserting Recorded Sound Effect
	2	22-Oct-19	Inserting In-Built Sound Effect
	3	23-Oct-19	Project based on MS Paint
	4	24-Oct-19	Vacations
	5	25-Oct-19	
	6	26-Oct-19	
	Sunday	27-Oct-19	
16th week	1	28-Oct-19	
	2	29-Oct-19	
	3	30-Oct-19	
	4	31-Oct-19	Project based on MS Paint
	5	1-Nov-19	Holiday
	6	2-Nov-19	Project based on MS Paint
	Sunday	3-Nov-19	
17th week	1	4-Nov-19	Project based on MS Paint
	2	5-Nov-19	Project based on MS Word
	3	6-Nov-19	Project based on MS Word
	4	7-Nov-19	Project based on MS Word
	5	8-Nov-19	Project based on MS Word
	6	9-Nov-19	Project based on MS Word
	Sunday	10-Nov-19	
18th week	1	11-Nov-19	Project based on MS PowerPoint
	2	12-Nov-19	Project based on MS PowerPoint
	3	13-Nov-19	Project based on MS PowerPoint
	4	14-Nov-19	Project based on MS PowerPoint
	5	15-Nov-19	Project based on MS PowerPoint
	6	16-Nov-19	Project based on MS PowerPoint
	Sunday	17-Nov-19	