LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-6th **Subject: BCA-** NTRODUCTION TO LINUX

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
Dr. Pardeep kumar	01/03/21 to 15/03/21	Introduction to Linux: Linux distributions, Overview of Linux operating system, Linuxarchitecture, Features of Linux, Accessing Linux system	
	16/03/21 to 31/03/21	Starting and shutting down system,Logging in and Logging out. Comparison of Linux with other operating systems.	Assignment – I
	01/04/21 to 15/04/21	Commands in Linux: General-Purpose commands, File oriented commands, directory orientedcommands, Communication-oriented commands, process oriented commands, etc.	
	16/04/21 to 31/04/21	Regular expressions & Filters in Linux: Simple filters viz. more, wc, diff, sort, uniq, grep.Introducing regular expressions.	Test – I
	01/05/21 to 15/05/21	Linux file system: Linux files, inodes and structure and file system, file system components,standard file system, file system types	
	15/05/21 to 31/05/21	Processes in Linux: starting and stopping processes, initialization Processes, mechanism ofprocess creation, Job control in linux using at, batch, cron & time	Assignment – II
	01/06/21 to 15/06/21	Shell Programming: Vl editor, shell variables, I/O in shell, control structures, loops,	
	16/06/21 to 30/06/21	, subprograms,creating & executing shell scripts in linux	

(Dr. Pardeep kumar)

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-4th Subject: BCA- WEB DESIGNING – I

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
Dr. Pardeep Kumar	01/03/21 to 15/03/21	Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basicfeatures; Web Browsers	
	16/03/21 to 31/03/21	Web Servers; Hypertext Transfer Protocol; URLs; Searching and Web-Casting Techniques; Search Engines and Search Tools	Assignment-I
	01/04/21 to 15/04/21	Web Publishing: Hosting your Site; Internet Service Provider; Planning and designing your WebSite; Steps for developing your Site	
	16/04/21 to 30/04/21	Choosing the contents; Home Page; Domain Names;Creating a Website and the Markup Languages (HTML, DHTML)	Test-I
	01/05/21 to 15/05/21	Web Development: Introduction to HTML; Hypertext and HTML; HTML Document Features;HTML command Tags	Assignment-II
	16/05/21 to 31/05/21	Creating Links; Headers; Text styles; Text Structuring; Text colors andBackground; Formatting text; Page layouts	
	01/06/21 to 15/06/21	Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts; FrameCreation and Layouts	
	16/06/21 to 30/06/21	Working with Forms and Menus; Working with Radio Buttons; CheckBoxes; Text Boxes	

(Dr. Pardeep Kumar)

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-2nd **Subject: BCA-** PERSONALITY DEVELOPMENT

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
Dr. Pardeep kumar	01-04-2021 to 15-04-2021	Personality & Personal Grooming – A Brief IntroductionPersonality and self-concept, Element of Personality, Determinants of Personality, Causes ofderanged Personality, Personality Analysis	
	16-04-2021 to 30-04-2021	Grooming, Personal hygiene, Social, Business and Dining Etiquettes, Body language use andmisuse, Art of good Conversation, Art of Intelligent Listening	Assignment
	01-05-2021 to 15-05-21	Interpersonal Skills & Role playing: Dealing with seniors, colleagues, juniors, customers,suppliers, contract workers, owners etc at work place	
	16-05-2021 to 31-05-2021	Group Discussion & Presentation skills: Team behavior, how to effectively conduct yourselfduring GD,	Test – I
	01-06-2021 to 15-06-2021	do's and don'ts, clarity of thoughts and its expressionPresentation skills & seminar skills	
	16-06-2021 to 30-06-2021	Interviews Preparation: Intent and purpose, selection procedure, types of interviews, Selfplanning, writing winning resume, knowledge of company profiles, academics andprofessional knowledge review	Assignment-II
	1-07-2021 to 31-07-21	update on current affairs and possible questions, time –keeping, grooming, dress code, document portfolio, frequently asked questions and theirappropriate answers, self – introduction, panel addressing, mental frame – work duringinterview	

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(Dr. Pardeep Kumar)

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-2nd **Subject: BCA-** 'C' Programming – I

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
JAGSIR SINGH	01-04-2021 to 15-04-2021	Overview of C: History of C, Importance of C, Structure of a C Program.Elements of C: C character set, identifiers and keywords, Data types, Constants and Variables,Assignment statement, Symbolic constant.	
	16-04-21 to 30-04-21	Input/output: Unformatted & formatted I/O function in C, Input functions viz. scanf(), getch(),getche(), getchar(), gets(), output functions viz. printf(), putch(), putchar(), puts().	ASSIGNMENT-I I/o Unformatted and Formatted Input Functions
	01-05-21 to 15-05-21	Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, conditionaloperators and special operators. Arithmetic expressions, evaluation of arithmetic expression, typecasting and conversion, operator hierarchy & associativity.	
	16-05-21 to 31-05-21	Decision making & branching: Decision making with IF statement, IF-ELSE statement, Nested IFstatement, ELSE-IF ladder, switch statement, goto statement	Test- I Decision Making statements & looping statements
	01-06-21 to 15-06-21	Decision making & looping: For, while, and do-while loop, jumps in loops, break, continuestatement.	
	16-06-21 to 30-06-21	Functions: Definition, prototype, passing parameters, recursion.	
	01-07-21 to 15-07-21	Storage classes in C: auto, extern, register and static storage class, their scope, storage, & lifetime.	ASSIGNMENT-II Storage classes in C
	16-07-21 to 31-07-21	Arrays: Definition, types, initialization, processing an array, passing arrays to functions, Strings &arrays.	

(JAGSIR SINGH)

Class : **BCA. Sem- 4th**

LESSON PLAN (Even Semester) Session 2020-21

Subject: BCA – 243 **COMPUTER ARCHITECTURE – II**

Name of Assistant Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
JAGSIR SINGH	01-03-21 to 15-03-21	Computer Arithmetic: Unsigned addition, subtraction, multiplication and division algorithms, 2'scomplement addition, subtraction and multiplication algorithms.	
	16-03-21 to 31-03-21	Floating point numbers addition, subtraction, and multiplication and division algorithms. IEEE 754 floating-point standard.	
	01-04-21 to 15-04-21	Interrupt Structures: Types of interrupts, Interrupt processing, levels and priorities of interrupts, implementing interrupts inside the CPU.	ASSIGNMENT-I Interrupt, Types of Interrupts and handling
	16-04-21 to 30-04-21	Instruction set architectures. Reduced Instruction Set Computing (RISC): Characteristics of RISC, RISC instruction set, RISC vs CISC.	
	01-05-21 to 15-05-21	Look Ahead & Pipelining: Instruction look ahead, look ahead and look behind, advantages of look ahead systems.	TEST-I Pipelining: Types Advantages of it.
	16-05-21 to 31-05-21	Pipelined execution of instruction – operation of pipelines, optimizing a pipeline, speedup due to pipelining, running the pipeline with minimum idling, multifunction pipelines, and organization of pipelines in a general purpose computer.	
	01-06-21 to 15-06-21	Introduction to Parallel Processing: Parallelism in uniprocessor systems, organization of multiprocessor systems, Flynn's classification, system topologies, MIMD system architectures.	ASSIGNMENT-II Parallel Processing and MIMD System Archi.
	16-06-21 to 30-06-21	Communication in multiprocessor systems, fixed connections, reconfigurable connections, routing on multistage interconnection networks, data flow computing.	

(JAGSIR SINGH)

LESSON PLAN (Even Semester) Session 2020-21

Class : **BCA. Sem- 4th** **Subject:** BCA – 244 **RELATIONAL DATA BASE MANAGEMENT SYSTEM**

Name of Assistant Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
JAGSIR SINGH	01-03-21 to 15-03-21	Relational Model Concepts, Codd's Rules for Relational Model, Relational Algebra:- Selection and Projection, Set Operation, Renaming,	
	16-03-21 to 31-03-21	Join and Division. Relational Calculus: Tuple Relational Calculus and Domain Relational Calculus.	
	01-04-21 to 15-04-21	Functional Dependencies and Normalization:- Purpose, Data Redundancy and Update Anomalies. Functional Dependencies:-Full Functional Dependencies and Transitive Functional Dependencies, Characteristics of Functional Dependencies.	ASSIGNMENT-I Normalization and Types of Normal Forms
	16-04-21 to 30-04-21	Decomposition and Normal Forms (1NF, 2NF, 3NF & BCNF).	
	01-05-21 to 15-05-21	SQL: Data Definition and data types, Specifying Constraints in SQL, Schema, Change statement,	TEST-I Constraints in SQL and DB schema
	16-05-21 to 31-05-21	Basic Queries in SQL, Insert, Delete and Update Statements, Views.	
	01-06-21 to 15-06-21	PL/SQL-Introduction, Advantages of PL/SQL, The Generic PL/SQL Block: PL/SQL Execution Environment	ASSIGNMENT-II PL/SQL- Introduction and its advantages
	16-06-21 to 30-06-21	PL/SQL Character set and Data Types, Control Structure in PL/SQL	

(JAGSIR SINGH)

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-6th Subject: BCA- INTRODUCTION TO .NET

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
RAJBIR KAUR (Guest Lecturer)	1st March to 15th March	The Framework of .Net: Building blocks of .Net Platform (the CLR, CTS and CLS), Featuresof .Net, Deploying the .Net Runtime, Architecture of .Net platform	
	16th March to 31st March	Introduction to namespaces& type distinction. Types & Object in .Net, the evolution of Web development	
	1st April to 15th April	Class Libraries in .Net, Introduction to Assemblies & Manifest in .Net, Metadata & attributes.Introduction to C#: Characteristics of C#,	Assignment-I
	16th April to 30th April	Data types: Value types, reference types, defaultvalue, constants, variables, scope of variables, boxing and unboxing.	Test
	1st May to 15th May	Operators and expressions: Arithmetic, relational, logical, bitwise, special operators, evolution ofexpressions, operator precedence & associativity.	
	16th May to 31st May	Control constructs in C#: Decision making, loops.Classes & methods: Class, methods, constructors, destructors, overloading of operators &functions	Assignment-II
	1st June to 15th June	Inheritance & polymorphism: visibility control, overriding, abstract class & methods, sealedclasses & methods, interfaces	
	16th June to 30th June	, Advanced features of C#: Exception handling & error handling, automatic memory management,Input and output (Directories, Files, and streams).	

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-6th **Subject: BCA- INTERNET TECHNOLOGY**

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
RAJBIR KAUR (Guest Lecturer)	1st March to 15th March	Internet and TCP/IP: Introduction to the Internet; Internet History, Internet Administration;Internet and Intranet; Internet Services; TCP/IP model and its protocols; IP addresses: IPv4	
	16th March to 31st March	Subnetting IPv4addresses; Supernetting; Next generation Internet Protocol (IPv6); The need forIPv6; Packet Format; IPv6 Addresses; Extension Headers	Assignment-I
	1st April to 15th April	TCP/IPs Transport and Network Layer Protocols: Role of TCP, UDP, IP, and Port numbers;Format of TCP, UDP and IP; TCP services; TCP connection management; Remote ProcedureCall; SCTP	Test
	16th April to 30th April	IP address resolution- DNS; Domain Name Space; DNS mapping; Recursive andIterative resolution; Resource records; Mapping Internet Addresses to Physical Addresses; ARP,RARP, BOOTP, DHCP; ICMP; IGMP	
	1st May to 15th May	TCP/IP Application Level Protocols: Electronic Mail : Architecture; SMTP, MIME, POP, IMAP;Web Based Mail; File Access and Transfer: FTP, Anonymous FTP, TFTP, NFS	Assignment-II
	16th May to 31st May	Remote Loginusing TELNET; Voice and Video over IP: RTP, RTCP, IP Telephony and Signaling, ResourceReservation and Quality of Service, RSVP	
	1st June to 15th June	Routing in Internet: RIP, OSPF, BGP; Internet Multicasting; Mobile IP; Private NetworkInterconnection: Network Address Translation (NAT), Virtual Private Network (VPN	
	16th June to 30th June	, InternetManagement: SNMP; Internet Security: IPSec, E-Mail Security; Web Security; Firewalls; DigitalSignatures; Certificates	

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-2nd **Subject:** BCA- Logical Organization of Computer – II

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
RAJBIR KAUR (Guest Lecturer)	1st April to 15th April	Sequential Logic: Characteristics, Flip-Flops, Clocked RS, D type, JK, T type and Master-Slave flip-flops	
	16th April 30th April	State table, state diagram and state equations. Flip-flop excitation tables	Assignment-I
	1st May 15th May	Sequential Circuits: Designing registers – Serial Input Serial Output (SISO), Serial Input ParallelOutput (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output	
	16th May 31st May	Designing counters – Asynchronous and Synchronous Binary Counters, Modulo-NCounters and Up-Down Counters	Test
	1st June 15th June	Memory & I/O Devices: Memory Parameters, Semiconductor RAM, ROM, Magnetic and OpticalStorage devices	Assignment-II
	16th June 30th June	Flash memory, I/O Devices and their controllers.	
	1st July 15th July	Instruction Design & I/O Organization: Machine instruction, Instruction set selection, Instructioncycle, Instruction Format and Addressing Modes	
	16th July 31st July	I/O Interface, Interrupt structure, Program-controlled, Interrupt-controlled & DMA transfer, I/O Channels, IOP.	

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-6th **Subject: BCA-** VISUAL BASIC

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
Ram Gopal	1·3·21 To 15·3·21	Introduction to VB: Visual & non-visual programming, Procedural, Object-oriented and event-driven programming languages, The VB environment: Menu bar, Toolbar, Project explorer,	
	16·3·21 To 31·3·21	Toolbox, Properties window, Form designer, Form layout, Immediate window. VisualDevelopment and Event Driven programming	
	1·4·21 TO 15·4·21	Basics of Programming: Variables: Declaring variables, Types of variables, Converting variablestypes, User-defined data types, Forcing variable declaration, Scope & lifetime of variables	Assignment I Converting Variable Types Scope & Life Time
	16·4·21 TO 30·4·21	Constants: Named & intrinsic. Operators: Arithmetic, Relational & Logical operators. I/O in VB:Various controls for I/O in VB, Message box, Input Box, Print statement.	
	1·5·21 To 15·5·21	Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case. Loopingstatements: Do-loops, For-next, While-wend, Exit statement. Nested control structures. Arrays:Declaring and using arrays	Test I All Type of loops in VB
	16·5·21 To 31·5·21	one-dimensional and multi-dimensional arrays, Static & dynamic arrays,Arrays of array. Collections: Adding, Removing, Counting, Returning items in a collection,Processing a collection	
	1·6·21 To 15·6·21	Programming with VB: Procedures: General & event procedures, Subroutines, Functions, Callingprocedures, Arguments- passing mechanisms, Optional arguments, Named arguments, Functionsreturning custom data types, Functions returning arrays.	Assignment II Function Returning Array.
	16·6·21 To 30·6·21	, Working with forms: Adding multiple forms in VB, Hiding & showing forms, Load & unloadstatements, Activate & deactivate events, Form-load event, menu designing in VBSimple programs in VB.	

Ram

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-2nd **Subject: BCA-** Computer-Oriented Statistical Methods

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
RamGopal	1.4.2021 TO 15.4.2021	**Basic Statistics: Measure of Central Tendency, Preparing frequency, distribution table, MeanArithmetic, Mean Geometric, Mean Harmonic, Mean, Media, Mode**	
	16.4.2021 TO 30.4.2021	**Measure of Dispersion: Range, Variance and Standard Deviations; Frequency Distributions andCumulative Frequency Distributions: Moments and Moments Generating Functions**	Assignment I Range, variance and SD
	1.5.21 TO 15.5.21	**Distribution Patterns: Types of Theoretical Probability; Normal Binomial Poisson distribution**	Test I. Types of Theoritical probability
	16.5.21 TO 31.5.21	**Correlation and Regression: Types of Correlation, Properties of Coefficient of Correlation,Methods of studying Correlation; Aim of Regression Analysis, Kinds of Regression Analysis.**	
	1.6.21 To 15.6.21	**Tests of significance: Z-test, Student T-test, Chi-square test.**	
	16.6.21 To 30.6.21	**Curve fitting: Method of least squares and Polynomial fit.**	Assignment 2 Test Significance & Curve fitting.
	1.7.21 To 15.7.21	**ANOVA: Meaning, Assumptions, Cochran's Theorem (only statement), One way classification ANOVA Table**	
	16.7.21 31.7.21	**Baye's theorem in decision-making, Forecastingtechniques**	

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-4th **Subject: BCA- DATA STRUCTURE – II**

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
RamGopal	1.3.21 TO 15.3.21	**Tree: Header nodes, Threads, Binary search trees, Searching, Insertion and deletion in a Binarysearch tree, AVL search trees, Insertion and deletion in AVL search tree, m-way search tree,**	
	16.3.21 To 31.3.21	**Searching, Insertion and deletion in an m-way search tree, B-trees, Searching, Insertion anddeletion in a B-tree, Huffman's algorithm, General trees.**	
	1.4.21 To 15.4.21	**Graphs: Warshall's algorithm for shortest path, Dijkstra algorithm for shortest path**	Assignment I Dijkstra Algorithm
	16.4.21 30.4.21	**Operations ongraphs, Traversal of graph, Topological sorting.**	
	1.5.21 To 15.5.21	**Sorting: Internal & external sorting, Radix sort, Quick sort, Heap sort, Merge sort, Tournamentsort**	Test I Quick sort
	16.5.21 To 31.5.21	**Comparison of various sorting and searching algorithms on the basis of their complexity**	
	1.6.21 TO 15.6.21	**Files: Introduction Attributes of a file, Classification of files, File operations, Comparison ofvarious types of files**	Assignment II file handling
	16.6.21 TO 30.6.21	**File organization: Sequential, Indexed-sequential, Random-access file.Hashing: Introduction, Collision resolution**	~~Test~~

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-4th **Subject: BCA-** MANAGEMENT INFORMATION SYSTEM

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
Anil Kumar	1st March to 15th March	Introduction to system and Basic System Concepts, Types of Systems, The Systems Approach, Information System:	
	16th March to 31st March	Definition & Characteristics, Types of information, Role of Information in decision-Making, Sub-Systems of an Information system: EDP and MIS management levels, EDP/MIS/DSS	
	1st April to 15th April	An overview of Management Information System: Definition & Characteristics, Components of MIS, Frame Work for Understanding MIS: Information requirements & Levels of Management,	
	16th April to 30th April	Simon's Model of decision-Making, Structured Vs Un-structured decisions, Formal vs. Informal systems	
	1st May to 15th May	Developing Information Systems: Analysis	
	16th May to 31st May	Design of Information Systems: Implementation &Evaluation, Pitfalls in MIS Development.	
	1st June to 15th June	Functional MIS: A Study of Personnel, Financial and production MIS, Introduction to e-businesssystems, ecommerce – technologies, applications,	
	16th June to 30th June	, Decision support systems – support systems for planning, control and decision-making	

(Anil Kumar)

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-6th **Subject: BCA- MULTIMEDIA TECHNOLOGY**

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
Anil Kumar	1st March to 15th March	Introduction to Multimedia: Components of Multimedia; Hypermedia and Multimedia; Overview of Multimedia Software Tools; Multimedia Hardware and Software; Basic Software Tools; Making Instant Multimedia; Presentation Tools;	
	16th March to 31st March	Multimedia Authoring; Types of Authoring Tools; Card-and Page-Based Authoring Tools; Icon-Based Authoring Tools; Time-Based Authoring Tools; Object-Oriented Authoring Tools; VRML	Assignment-I
	1st April to 15th April	Graphics and Image Data Representation: Graphics/Image Data Types, Popular File Formats; Color Models in Images and Video; Types of Video Signals	
	16th April to 30th April	Analog and Digital Video: Broadcast Video Standards: NTSC, PAL, SECAM, HDTV; Chroma Sub sampling; CCIR Standards for Digital Video;	Test
	1st May to 15th May	Digital Audio: Digitization of Sound; MIDI Versus Digital Audio; Quantization and Transmission of Audio: Coding of Audio;	
	16th May to 31st May	Pulse Code Modulation; Differential Coding of Audio; Lossless Predictive Coding; DPCM; DM; ADPCM	Assignment-II
	1st June to 15th June	Multimedia Data Compression: Run-Length Coding; Variable-Length Coding; Dictionary-Based Coding; Transform Coding	
	16th June to 30th June	Image Compression Standards – JPEG standard; Video Compression Techniques: H.261, H.263, MPEG	

LESSON PLAN (Even Semester) Session 2020-21

Class : BCA. Sem.-6th **Subject: BCA- PROGRAMMING IN 'C++**

Name of Assistant / Associate Professor	Period	Topics to be covered	Topic of Assignments / Tests to be given to the students
Anil Kumar	1st March to 15th March	**Inheritance: Rules of Derivations – Private, Protected and Public Derivations**	
	16th March to 31st March	**Different Forms of Inheritance – Single, Multiple, Multilevel, Hierarchical and Multipath Inheritance, Roles of Constructors and Destructors in Inheritance**	Assignment-I
	1st April to 15th April	**Dynamic Polymorphism: Function Overriding, Virtual Function and its Need, Pure VirtualFunction, Abstract Class, Virtual Derivation, Virtual Destructor.**	
	16th April to 30th April	**Type Conversion: Basic Type Conversion, Conversion Between Objects And Basic Types, Conversion Between Objects Of Different Classes**	Test
	1st May to 15th May	**Genericity in C++: Template Function, Template Class, Inheritance and Templates**	
	16th May to 31st May	**Exception Handling: try, throw and catch constructs, rethrowing an exception, catch all Handlers**	Assignment-II
	1st June to 15th June	**Files I/O in C++: Class Hierarchy for Files I/O, Text versus Binary Files, Opening and Closing Files**	
	16th June to 30th June	**File Pointers, Manipulators and Error Handling**	

(Anil Kumar)