Bharatiya Vidya Bhavan

BHAVAN'S VIVEKANANDA COLLEGE
OF SCIENCE, HUMANITIES AND COMMERCE
(Accredited with 'A' grade by NAAC)
Autonomous College, Affiliated to Osmania University
Department of Computer Science
BCA I SEMESTER(CBCS)

BCA143: FUNDAMENTALS OF INFORMATION TECHNOLOGY

Academic Organizer for 2018- 2019

Month Unit No.	Sub Unit	Details	Periods Per Sub Unit	Total Periods
JUNE/ JULY UNIT-I	a)	Introduction , Characteristics of a computers , applications of computers (Science , education ,medicine &health care entertainment ,banking) classification of computers (Micro ,Mini , Mainframe, Super Computers).	4	15
	b)	The computer system , Components of a computer system –input unit ,output unit , central processing unit (CPU),Arithmetic /Logic unit(ALU) , registers ,Control unit(CU) ,Main memory unit .	4	
	c)	Cache memory, memory representation , Memory hierarchy –RAM & its types ,ROM & its types .	3	
	d)	Types of secondary storage devices.	2	
	e)	Instruction set , CISC &RISC(introduction, advantages and disadvantages only).	2	
JULY/ AUG UNIT-II	a)	Programming languages: Introduction, program development cycle, characteristics of a good program, types of programming languages (Machine, Assembly, High-level languages).	4	15
	b)	Generations of programming languages, features of good programming language. Computer Software: Categories of software(System &Application Software) .	3	
	c)	Operating system: types & functions of O.S ,popular O.S like Windows &UNIX ,languages translators (Compiler , interpreter ,assembler).	3	
	d)	Database fundamentals: Introduction ,data versus Information ,data base definition , File oriented approach Vs DBMS approach , physical data concepts(Sequential ,Direct ,indexed sequential) ,Data ware housing &data mining.	4	
	e)	Data ware housing &data mining.	1	
AUG/ SEPT UNIT-III	a)	Data Communication and computer networks : Data communications ,components , data transmission mode(Simplex ,half duplex ,full duplex modes) , analog and digital data transmission .	4	15
	b)	Transmission media-guided media(twisted pair ,Coaxial cable ,optical fibre) & unguided media ,Asynchronous and Synchronous transmission .	2	
	c)	switching (circuit switching ,packet switching ,message switching).	3	
	d)	Types of networks –LAN ,MAN, WAN .	3	
	e)	Network topologies(bus topology ,ring topology ,star topology ,tree topology, mesh topology).	3	
SEPT/ OCT UNIT-IV	a)	The internet : Introduction ,basic internet terms(website ,website ,home page ,browsers) ,URL ,domain names, hyper text , getting connected to internet .	3	15
	b)	Types of internet connections (Dial-up ,ISDN ,cable modem ,leased line ,DSL, broad band) w.w.w , e-mail ,file transfer protocol(FTP) video conferencing .	3	
	c)	Computer Security: Definition ,Security threats ,malicious programs ,other destructive programs.	4	
	d)	Multimedia: introduction, building blocks of multimedia, desirable features of multimedia system, multimedia applications.	3	
	e)	Virtual reality. E-commerce, advantages and disadvantages of e-commerce, Electronic Data Interchange (EDI).	2	
		TOTAL NO OF PERIODS		60

Bhavans Vivekananda College
Department of Computer Science
B.C.A 1st year /1st Sem
BCA142: PROGRAMMING IN 'C'
Academic Organizer 2018-2019

Month Unit No.	Sub Unit	Details	Periods Per Sub Unit	Total Periods
June/July I	a)	Introduction – Types of Programming Languages. Algorithms- Flow charts.	2	15
	b)	C' Fundamentals: High Level Languages- Compiling programs – Integrated Development Environment – Language Interpreters –Running the program – Comments	5	
	c)	C-Tokens – Constants, Variable, Data Types, and Arithmetic Expressions. Operators – types of operators. The printf and scanf functions – type casting. – go to statement.	8	
July/Aug II	a)	Decision making: The if statement – if else construct – Nested if statements – The else if construct.	5	15
	b)	switch statement. Looping Statements: The while statement.	5	
	c)	do statement, for statement, break statement, continue statement,nesting of loops.	5	
Aug/Sept III	a)	Working with Arrays: Defining an Array – Initializing Arrays –one dimensional Arrays, two dimensional Arrays.	5	15
	b)	Strings and string functions(built-in functions). Working with Functions: Defining a Function, Types of functions.	5	
	c)	Formal and Actual parameters. Function calling mechanisms - Call by value and Call by reference. Recursive Functions. Storage Classes(auto, register, extern)	5	
Sept/Oct IV	a)	Working with structures: Defining structure,array of structures, nested structures, arrays within structure. Unions, difference between structure and unions.	5	15
	b)	Pointers: Introduction to Pointers, Accessing the address of a variable, Declaring Pointer Variables, Initialization of Pointer Variables, Accessing a variable through its pointer.Dynamic Memory Allocation (Pointers with Memory allocation).	5	
	c)	The preprocessors: Macro Substitution (The # define statement), File Inclusion (# include - user defined header files).	5	
TOTAL NO OF PERIODS			60	60

Name of the Lecturer: KVB SARASWATHI

Bhavan's Vivekananda College

Department of Computer Science

B.C.A 1st year /I Sem

BCA145: INFORMATION SYSTEMS THEORY AND APPLICATIONS

Academic Organizer 2018-2019

Unit No.	Sub Unit	Details	Periods Per Sub Unit	Total Periods
JUN/ JULY I	a)	Managerial View of IS - Functions of Management, Management role. Levels of Management.	2	15
	b)	Frame work for IS, Sequence of Development of IS.	2	
	c)	Systems - Concepts. Boundaries, Structure, Inputs and Outputs, Subsystems, Interfaces,Environment, working of a System, Systems approach to problem solving, feedback, Control. Strategic uses of IS. Impact of IT, Business Process Reengineering, IT and Business Process.	11	
JULY/ AUG II	a)	Operations and Transactions, The value and cost of information, Decision Levels, Role of Accounting Transaction Processing Systems.	5	15
	b)	Operational Information Systems - Financial Accounting, Marketing, Production. Human Resource Management,Models and Decision Support.	5	
	c)	Introduction to Models- Physical, Process and Business modeling. Types of Business Models,Group Decision Process, DSS and EIS (Expert Information System).	5	
AUG/ SEP III	a)	Decision in Business Areas - Accounting, Finance, Marketing, Human resource Management, Production and Design.	4	15
	b)	IS planning - Determination of Information requirements, Business systems planning, End /Means Analysis, Organizing the IS plan..	6	
	c)	Systems Analysis and Design - System Developmentlife cycle, proto typing, SSAD, project management cost benefit analysis, detailed Design, implementation.	5	
SEP/ OCTIV	a)	Management Control: Control theory, Control of systems development, control of operations,Auditing, management of technical environment.	3	15
	b)	CEO responsibilities, Allocation of Responsibilities in distributed data processing.	3	
	c)	IS Security risks, common controls, common threats, IS protection, Ethical issues Societal implications, Social responsibilities.	9	
TOTAL NO OF PERIODS			60	60

09/06/18

Name of the Lecturer: K.VAGDEVI

Bhavan's Vivekananda College

Department of Computer Science

B.C.A 2nd year /3rd Sem

BCA342: DATA COMMUNICATION AND NET WORKING

Academic Organizer 2018-2019

Unit No.	Sub Unit	Details	Periods Per Sub Unit	Total Periods
June/ July I	a)	**Introduction** - Data communications, Networks, Protocols and Standards.	3	15
	b)	**Network Model** – Layered Tasks, OSI Model, Layers in the OSI Model, TCP/IP Protocol Suite, Addressing.	7	
	c)	**Data and Signals-** Analog and Digital, Periodic Analog Signals, Digital Signals, Transmission Impairments. **Digital Transmission** - Digital to Digital, Analog to Digital Conversion.	5	
July/ AugII	a)	**Analog Transmission-** Digital to Analog and Analog to Analog.	3	15
	b)	**Multiplexing** –FDM, WDM, TDM. **Transmission Media -** Guided Media, Unguided Media.	6	
	c)	**Switching** - Circuit, Datagram, Virtual Circuit Networks.	6	
Aug/ SepIII	a)	**Error Detection and Correction** – Introduction, Block Coding, Cyclic Codes, Checksum.	5	15
	b)	**Data Link Control** –Framing, Flow and Error Control, Protocols, Noiseless Channels, Noisy Channels, HDLC.	4	
	c)	**Wired and Wireless LANS-Ethernet -** IEEE Standards, Standard Ethernet, Changes in the Standard, Fast Ethernet, IEEE 802.11. **Connecting LANs** - Connecting Devices, Backbone Networks, and Virtual LANs.	6	
Sep/ OctIV	a)	**Logical Addressing-** IPv4 Address, IPv6 Address **Internet Protocol** – Internetworking, IPv4, IPv6.	5	15
	b)	**Address Mapping and Error Reporting-** Address Mapping, ICMP.	4	
	c)	**Delivery, Forwarding and Routing-** Direct and Indirect Delivery, Forwarding Techniques, Forwarding Process, Routing Table and Unicast Routing Protocols.	6	
TOTAL NO OF PERIODS			60	60

09/06/18

Name of the Lecturer: K.VAGDEVI

BHAVANS VIVEKNANDA COLLEGE
Department of Computer Science
B.C.A 2ndyr/III SEM
BCA 343 Operating Systems
Academic Organizer 2018-2019

Month/ Unit No.	Sub Unit	Details	Periods / subUnit	Total Periods
Jun/July UNIT - I	a)	Operating Systems- Functions, Virtual Computers,Operating System Interface- System calls, Examples of System Call Interface, Process Concept- Processes, Creation, States	6	15
	b)	Process Switching, Process Tables and Process Descriptors. CPU Scheduling Algorithms	5	
	c)	IPC Patterns: Mutual Exclusion, Signaling, Producer-Consumer, Client- Server, Data Access and Update	4	
July/Aug UNIT- II	a)	Deadlock- conditions for deadlock, Dealing with Deadlocks, Two-Phase locking	4	16
	b)	Synchronization, Semaphores, Monitors, Thread-Concept, System Calls, Advantages and Uses.	4	
	c)	Memory Management- Linking and Loading a Process,Dynamic Linking, Memory Management System Calls. Virtual Memory(Definition Only), Dealing with Fragmentation	5	
	d)	Segmentation, Paging, Page Replacement Algorithms, Trashing(Definition Only) and Load Control(Definition only)	3	
Aug/Sep Unit- III	a)	I/O devices- Devices and Controllers, Disk Drives, Disk Controllers	4	16
	b)	I/O System Software, Disk Device Driver Access Strategies, Unification of Files and Devices, Generalized Disk Device Drivers	5	
	c)	File System - Need for Files, File Naming, File System Objects and Operations.	4	
	d)	File System Organization - File Descriptors, Locating File Blocks on Disk, File System Reliability.	3	
Sep/Oct UNIT- IV	a)	Resource Management – Resources in OS, Types of Resources, Protection of Resources,	4	13
	b)	User Authentication, Mechanisms for Hardware Protection, Mechanisms for Software Protection, Examples of Protection Attacks. Cryptography in Computer Security	6	
	c)	Client-Server Model - System Processes, Micro-Kernel OS (definition only), Development towards a Distributed System (definition only).	3	
		TOTAL NO OF PERIODS	**60**	

Name of the Lecturer: N Sharon Rosy, Dept of Comp Sci

Bhavans Vivekananda College
Department of Computer Science
B.C.A 2nd year /3rd Sem
BCA344: OBJECT ORIENTED PROGRAMMING WITH JAVA
Academic Organizer 2018-2019

Month Unit No.	Sub Unit	Details	Periods Per Sub Unit	Total Periods
JUNE /JULY UNIT-I	a)	**Java Evolution:** Java Features – How Java differs from C – Java and Internet – Java and World Wide Web – Web Browsers – Hardware and Software Requirements.	5	15
	b)	**Overview of Java Language:** Simple Java Program – Java Program Structure – Java Statements – Implementing a Java Program – Java Virtual Machine – Command Line Arguments	3	
	c)	**Java Tokens-** keywords, Constants , Variables – Data types – Declaration of Variables-Giving Values to Variables- Scope of Variables-Symbolic Constants-Type Casting-Operators-Arithmetic Operators – Relational Operators- Logical Operators – Assignment Operators – Increment and Decrement Operators – Conditional Operators – Bitwise Operators – Special Operators.	7	
JULY UNIT-II	a)	Decision Making and Branching: Decision Making with if Statement – Simple if Statement-if else Statement-Nesting if else Statement- the else if Ladder-The Switch Statement – The ?: operator. Looping: The while statement – The do statement – The for statement – Jumps in Loops.	6	15
	b)	Fundamentals of Object Oriented Programming: Object Oriented Paradigm – Basic Concepts of Object Oriented Programming – Benefits of OOP – Applications of OOP.	3	
	c)	Class, Objects and Methods: Defining a Class – Fields Declaration – Methods Declaration – Creating Objects – Accessing Class Members – Constructors – Method Overloading – Static Members – Nesting of Methods – Inheritance – Overriding Methods – Final Variables and Methods – Final Classes – Abstract Methods and Classes – Visibility Control.	6	
	a)	**Arrays** – Strings – Vectors – Wrapper Classes – Enumerated Types	6	
	b)	**Interfaces:** Multiple Inheritance: Defining Interfaces – Extending Interfaces – Implementing Interfaces – Accessing Interface Variables.	3	

AUG UNIT-III	c)	**Packages:** Java API Packages – Using system Packages – Naming Conventions – Creating Packages – Accessing a Package – Using a Package – Adding a Class to a Package – Hiding Classes – Static Import	6	15
SEP UNIT-IV	a)	**Multithreaded Programming:** Creating Threads – Extending the Thread Class – Stopping and Blocking a Thread – Life Cycle of a Thread – Using Thread Methods – Thread Exceptions – Thread Priority – Synchronization.	7	15
	b)	**Exception handling**: Managing Errors and Exceptions: Types of Errors – Exceptions – Syntax of Exception Handling Code – Multiple Catch Statements – Using Finally Statement – Throwing our own Exceptions – Using Exceptions for debugging.	8	
TOTAL NO OF PERIODS			60	60

Name of the Lecturer: K.HIMABINDU

K. Himabindu

G. Naresh

Bhavans Vivekananda College
Department of Computer Science
BCA 3rd Year / 5th Sem
BCA543b: MOBILE APPLICATION DEVELOPMENT (ELECTIVE-I)
ACADEMIC ORGANIZER 2018-2019

Month	Unit No	Sub Unit	Details	Periods Per Sub Unit	Total Periods
June / July	I	a)	**Hello Android**: Android isn't,	2	15
			Android: An Open Platform for Mobile Development		
			Native Android Applications		
		b)	Android SDK features	2	
			Android Run on		
		c)	Introducing the Development Framework	3	
			Understanding the Android Software Stack		
		d)	The Dalvlk Virtual Machine	1	
			Android Application Architecture		
			Android Libraries		
		e)	**Getting Started**: Developing for Android	3	
			Creating your First Android Application		
		f)	Types of Android Applications	1	
			Developing for Mobile and Embedded Devices		
		g)	Developing for Android	1	
			Android Development Tools		
		h)	The Android Virtual Device Manager	1	
			Android SDK Manager		
		i)	The Android Emulator	1	
			The Android Debug Bridge		
July / Aug	II	a)	**Creating Applications and Activities**: Introduction the Application Manifest File	2	13
			Using the Manifest Editor		
			Externalizing Resources	2	
		b)	Creating Resources		
			Layouts –Animations – Menus		
		c)	Using Resources, Using System Resources		
			The Android Application Lifecycle	1	
		d)	Understanding an Applications Priority and its Process States		
			Introducing the Android Application Class	1	
			Overriding the Application Lifecycle Events		
		e)	A Closer Look at Android Activities	2	
			Creating Activities		
			The Activity Lifecycle		
		f)	**Building User Interfaces**: Fundamental Android User Interfaces (UI) Design	1	
		g)	Android UI Fundamentals		
			Assigning UI to Activities		
		h)	Introducing Layouts – Defining Layouts, Using Layouts to Create Device Independent UI	2	
			The Android Widget Toolbar	1	
		i)	Creating New Views	1	
			Modifying Existing Views		

D. Ramakrishna

G. M

Bhavans Vivekananda College
Department of Computer Science
BCA 3rd Year / 5th Sem
BCA543b: MOBILE APPLICATION DEVELOPMENT (ELECTIVE-I)
ACADEMIC ORGANIZER 2018-2019

Month	Unit No	Sub Unit	Details	Periods Per Sub Unit	Total Periods
Aug	II	j)	Introducing Adapters Introducing Some Native Adapters Customizing the Array Adapter Using Adapters to Bind Data to a View	2	2
Aug / Sep	III	a)	**Intents and Broadcast Receivers**: Introducing Intents Using Intents to Lunch Activities	2	15
		b)	Introducing Linkify Using Intents to Broadcast Events	3	
		c)	Introducing the Local Boardcast Manager Introducing Pending Intents	1	
		d)	**Using Internet Resources**: Downloading and Parsing Internet Resources Connecting to an Internet Resources Parsing XML using the XML Pull Parser	3	
		e)	Using the Download Manager Downloading Files Customizing Download Manager Notifications Specifying a Download Location Cancelling and Removing Downloads	4	
		f)	Using Internet Services.	2	
Sep / Oct	IV	a)	**Databases and Content Providers**: Introducing Android Databases SQLite Databases Content Providers	2	15
		b)	Introducing SQLite Content Values and Cursors	2	
		c)	Working with SQLite Databases Introducing the SQLiteOpenHelper Opening and Creating Databases without the SQLiteOpenHelper Android Database Design Consideration Querying a Database Extracting Values from a Cursor	4	
		d)	Adding, Updating and Removing Rows – Inserting Rows – Updating Rows – Deleting Rows	3	
		e)	Creating Content Providers – Registering Content Providers Publishing your Content Provider's URI Address Creating the Content Provider's Database Implementing Content Provider Queries Content Provider Transactions Storing Files in a Content Provider A Skelton Content Provider Implementation	4	
			Total	60	60

D. Ramakrishna

Bhavans Vivekananda College
Department of Computer Science
B.C.A 3rd year /5th Sem - IP
Academic Organizer 2018-2019

Month Unit No.	Sub Unit	Details	Periods Per Sub Unit	Total Periods
June/July Unit-I	a)	**Protocols and Standards:** Protocols, Standards, TCP/IP-Protocol Suite, Addressing.	5	15
	b)	**IP Addressing** - Decimal Notation, Classes, Special Addresses, Unicast- Multicast and Broadcast Addresses.**Sub Netting and Super Netting** – Sub Netting, Masking, Super Netting.**Delivery and Routing of IP Packets** - Connection Oriented Versus Connectionless Services,	8	
	c)	Direct Versus Indirect Delivery, Routing Methods, Static Versus Dy	2	
July/Aug Unit-II	a)	**Internet Protocol** - Datagram, Fragmentation, Options, Checksum. ARP and RARP –ARP, Packet Format, Encapsulation, Operation, Proxy ARP, RARP Packet Format.	8	15
	b)	**Internet Control Message Protocol (ICMP)** - Types of Messages, Message Format, Error Reporting, Query.	2	
	c)	**Transmission Control Protocol (TCP)** - Process To Process Communication, Services, Segment, Options,	5	
Aug/Sept Unit-III	a)	**BGP-Path Vector Routing-Path Vector Messages.**	7	15
	b)	**Client-Server Model - Concurrency, BOOTP, DHCP.**	5	
	c)	**Domain Name System (DNS)** - Name Space, Domain Name Space, Distribution, DNS in Internet.	3	
Sep/ Oct Unit-IV	a)	**Telnet**- Concepts, NVT, Options, Escape Character, Mode of Operation, User Interface, Rlogin. File Transfer Protocol (FTP)-Connections, Communication, Command Processing, File Transfer.	7	15
	b)	**Simple Mail Transfer Protocol (SMTP)** - User Agent, Addresses, Delayed Delivery, Aliases, MTA, Commands and Responses, Mail Transfer Phases, Mime, Pop.	4	
	d)	**Next Generation Ipv6**:Ipv6, Addresses, Packet Format, Comparison between Ipv4 and Ipv6 Headers	4	
TOTAL NO OF PERIODS			60	60

Name of the Lecturer: P.SRINIVASA

Bhavans Vivekananda College

Department of Computer Science

B.C.A V Semester, Advanced Java Programming

Academic Organizer 2018-2019

Month	Unit No.	Sub Unit	Details	Periods Per Sub Unit	Total Periods
June/July	I	a)	Introducing JDBC: Describing Components of JDBC, Features of JDBC	3	15
		b)	JDBC Architecture: Types of Drivers, Advantages and Disadvantages of Drivers, Use of Drivers	4	
		c)	JDBC Statement and Methods: Statement Interface, PreparedStatement Interface	5	
		d)	CallableStatement Interface, Working with ResultSet Interface.	3	
July/Aug	II	a)	Introducing CGI , Introducing Java Servlet , Advantages of Servlet over CGI , Features of Servlet	2	15
		b)	Introducing Servlet API - Javax.servlet package , Javax.servlet.http package	2	
		c)	Servlet Lifecycle ,Working with GenericServlet class methods, HttpServlet , Understanding Request Dispatching ,Dispatching the Request, Working with HttpServletRequest, Working with HttpServletResponse, Describing HttpServlet- The HttpServlet Lifecycle.	7	
		d)	Session in Servlet - Introducing Session Tracking, Describing Cookies, HttpSession.	4	
Aug/Sep	III	a)	Introduction to JSP - Advantages of JSP over Servlet , JSP architecture , JSP Life Cycle	7	15
		b)	Exploring Scripting Tags, Exploring Implicit Objects in JSP, Exploring Directive Tags.	8	

G. M

D. Ramakrishna

Bhavans Vivekananda College

Department of Computer Science

B.C.A V Semester, Advanced Java Programming

Academic Organizer 2018-2019

Month	Unit No.	Sub Unit	Details	Periods Per Sub Unit	Total Periods
Sep/Oct	IV	a)	JSTL Core Tags - General-Purpose Tags, Conditional and Looping Tags, Networking Tags, JSTL SQL Tags.	7	15
		b)	Working with JSF - Features of JSF, JSF Architecture, Describing JSF Elements, JSF Request Processing Life cycle, JSF Tag Libraries, JSF HTML Tags.	8	
			TOTAL NO OF PERIODS	60	60

G.M

D. Ramakrishna

Bhavans Vivekananda College
Department of Computer Science
BCA V SEMESTER
BCA543: OBJECT ORIENTED SYSTEM DEVELOPMENT
ACADEMIC ORGANIZER 2018-2019

Unit No	Sub Unit	Details	Period Topic Wise	Total Periods
JUNE/JULY UNIT I	a	Introduction to CASE tool and its advantages	4	15
		Introduction to OOSD.		
		overview of Unified Approach		
	b	OOSD Life Cycle and its stages.	4	
		Problem Analysis		
	c	Problem solution design	2	
		Implementation		
	d	Object oriented methodologies	3	
		Booch, Jacobson and Rumbaugh methodologies.		
		Unified Approach		
	e	Layered Approach UML	2	
		Object Modeling Techniques		
JULY/AUG UNIT II	a	UML Diagrams	4	15
		Class Diagram		
	b	Interaction Diagrams	4	
		Packages		
		UML extensibility features		
		Notations used for UML diagrams		
	c	UML meta data	3	
		Object Oriented Analysis		
	d	Business object analysis	3	
		Usecase modeling		
	e	Effective Document and rules to develop a document	1	
AUG/SEPT UNIT III	a	Object Analysis	2	15
		Classification theory		
		Noun phase approach		
		Common class patterns		
	b	Use Case driven approach	3	
		Classes, responsibilities and collaborations		
		Class naming		
		Object relationships		
	c	Associations	3	
		super and sub class relationships		
		A-Part relationship		
		Class responsibilities		
		Object Oriented Design		
	d	Design axioms	4	
		Corollaries		
		design patterns		
		Class design rules		
		class visibility		
		class attributes and methods design		
		designing methods and protocols		

SETP/OCT UNIT IV	a	Access Layer Design	2	15
		Object persistence		
		DBMS and models		
	b	client/server computing	3	
		distributed object computing COM, DCOM, ACTIVE X CONTROLS		
	c	OODBMS and its importance	4	
		Multi database systems		
		View Layer		
		User interface design		
		Designing view layer classes		
		Macro level process		
	d	Micro level process design	4	
		UI design lrules		
		view layer interface & prototyping		
		Quality assurance test, Testing strategies		
		Test cases, test plans and continuous testing		
				60

N. Bhaskar

Name of the Lecturer: Mr. N. Bhaskar

BHAVAN'S VIVEKANANDA COLLEGE OF SCIENCE, HUMANITIES AND COMMERCE
Sainikpuri, Secunderabad-500094 Autonomous College Affiliated to Osmania University

TEACHING PLAN 2018-19

Name of the Faculty: K. Saraswathi Devi	Department: Computer Science	Year/Semester: I/II	No. of Classes per Week: (4 hrs/Theory)4 hrs Practicals

Learning Objective:
To learn basics of C++, Control Flow, Arrays, Strings.
To learn Functions, OOP's basics, Class and objects, Constructors, destructors
To learn Inheritance and Polymorphism
To learn Templates and Exception Handling.

Program: B.C.A Subject: Program in C++

S.No	Month	Month & Week	Units	Syllabus	Additional Input/Value Addition	Teaching Method	Student/ Learning activity
1	December	December 1st Week	1	C++ Structure I/O Tokens, Data types in C++, Variable-Declaration and initialization.	Added features in C++ compared to C language. Uses of scope resolution operator	Chalk and Board LCD presention with sample programmes in Lab Class.	Group discussion on differences between C and C++ .Conducting quiz on these concepts making students involve in concepts
2		December 2nd Week		Types of operators,Operator precedence,manipulators,typecasting, Expressions and types	Added features in C++ compared to C language. Uses of scope resolution operator	Chalk and Board LCD presention with sample programmes in Lab Class.	Group discussion on differences between C and C++ .Conducting quiz on these concepts making students involve in concepts
3		December 3rd Week		Branching statements,Looping statements, 1D,2D arrays, String- initilization, string Manipulations		Conducting quiz on these concepts making students involve in concepts	Conducting quiz on these concepts making students involve in concepts
4		December 4th Week		Introduction to Function components,Library functions,Parameter passing		Chalk and Board	Making students(experts) explain about the concepts in brief
5		December 5th Week		Call by value, Call by address, Call by reference, Recursive Functions.		Chalk and board	
6		January 1st Week		Introduction to OOP,Concepts,Benefits and Applications of OOP	Real time examples of objects	LCD(examples), chalk and board	Conducting quiz on these concepts making students involve in concepts

7	January	January 2nd Week	2	Introduction to Classes and Objects,Specifing a class,objects	Live examples of classes and objects	LCD presention with sample programmes in Lab Class.	Seminar on classes and objects
8		January 3rd Week		Accessing class members, Inline functions, nesting of member functions.		chalk and board	Assignments
9		January 4th Week		Introduction to Constructors and Destructors,Types of Constructors		chalk and board	
10		January 5th Week	3	Copy constructors, Destructors,Introduction to Inheritance, Single,Multilevel inheritance		chalk and board	
11	February	February 1st Week		Multiple,Hierarchical inheritance, Function overloading, Introduction to Operator Overloading	Advantages of inheritance	LCD(examples), chalk and board	Seminar on different inheritances
12		February 2nd Week		Overloading with Unary operator, Pointers,Virtual functions		chalk and board	
13		February 3rd Week	4	Templates Introduction,Function Templates Class Templates,		chalk and board	Group Discussion for identifing Various types of errors and rectification methods.
14		February th Week	4	Basics of Exception Handling Class Templates, Basics of Exception Handling		chalk and board	Group Discussion for identifing Various types of errors and rectification methods.
15		February 5th Week	4	Multiple Catch Statements	Examples on exceptions	LCD(examples), chalk and board	**Assignments Seminar on exception handling with examples**

Learning Outcomes:

By the time students completes the course they can write their own basic c++ programs.
solve problems using Object Oriented Programming concepts.
Use the concepts of Inheritance and Polymorphism for real time implementation.
Create Templates and learn to write programs using Exception handling.

BHAVAN'S VIVEKANANDA COLLEGE

TEACHING PLAN 2018-19

Name of the Faculty: G Mahesh Kumar	Department: Computer Science	Year/Semester: BCA I/II (Organizations and Functions)	No. of Classes per Week: (4 hrs/Theory)

Learning Objectives:

To introduce the roles and responsibilities of management, leadership and motivation theories.
To impart knowledge in financial management, investment decisions, and decision making.
To impart knowledge in planning and controlling of projects, manufacturing process.
To acquire knowledge on market and product information.

S.No	Month & Week	Units	Syllabus	Additional Input/Value Addition	Teaching Method	Student/ Learning activity
1	November 3rd Week	1	Management – Definition, types of managers, responsibilities, tasks.		Chalk and Black Board , Marker Board	
2	November 4th Week		Leadership and Motivation – nature of leadership, leadership theories, delegation, defining motivation, motivation theories, defining needs,	Leadership Skills	Chalk and Black Board , Marker Board	**Group Discussion** on Leadership and Motivational aspects.
3	November 5th Week		Time Management – importance of time, characteristics of management tasks, determining		Chalk and Black Board , Marker Board	
4	December 1st Week		Organization – definition, structures, quality, organizational change, managing change.		Chalk and Black Board , Marker Board	
5	December 2nd Week	2	Financial Management – Financial Environment- basics, financial accounts, profitability, budgets and		Chalk and Black Board , Marker Board	
6	December 3rd Week		Investment Decisions – definition, ranking process, payback period		Chalk and Black Board , Marker Board	
7	December 4th Week		average rate of returns, discounted cash flows.		Chalk and Black Board , Marker Board	
8	January 1st Week		Decision Making – The nature of decisions, decision making process, decision making techniques.		Chalk and Black Board , Marker Board	
9	January 2nd Week		Project and Operations Management – Project Planning and Control – projects and management		Chalk and Black Board , Marker Board	

G. Mahesh

10	January 3rd Week	3	network analysis, critical path, Gantt chart,Manufacturing Operations – manufacturing environment, experience curve,		Chalk and Black Board , Marker Board	
11	January 4th Week		manufacturing technology,global operations, logistics, design, quality.		Chalk and Black Board , Marker Board	
12	February 1st Week	4	Marketing and Sales Management- Markets and Marketing- market, marketing information		Chalk and Black Board , Marker Board	
13	February 2nd Week		market segmentation, consumer and industrial markets.		Chalk and Black Board , Marker Board	
14	February 3rd Week		Product Management, Sales and Distribution – product management, pricing		Chalk and Black Board , Marker Board	
15	February 4th Week		marketing communications, sales, physical distribution.	Latest Marketing Communication Techniques	Chalk and Black Board , Marker Board	**Group Discussion** on latest marketing communication techniques.
	Learning Outcomes: Analyze concepts and demonstrate skills that are fundamental to organizational development and leadership. Be able to plan and control projects. Be able to make best decisions for investments. Be ready to do marketing and sales with respective to products.					

BHAVAN'S VIVEKANANDA COLLEGE OF SCIENCE, HUMANITIES AND COMMERCE
Sainikpuri, Secunderabad-500094 Department of Computer Science

TEACHING PLAN 2018-19

Name of the Faculty: K.Srinivasa Rao	Department: Computer Science	Year/Semester: I/II	No. of Classes per Week: 4 Hrs Theory & 4 Hrs Practicals

Learning Objective: • To know fundamentals of computer, hardware, software and bus structure.
• To identify the different mother board components connected to a computer.
• To introduce processors, power supply and power protection systems with backup.
• To learn how to assemble a system and install various drivers andoperating systems.
• To learn how to troubleshoot and the basics of boot sequences, methods and startup utilities

Programme: B.C.A -II Semester Subject: I.T Hardware

S.No		Month & Week	Units	Syllabus	Additional Input/ Value Addition	Teaching Method	Student/ Learning activity
1	November	November 5th Week	1	Unit-I: Overview of computer systems - features and components , Mother board: parts on motherboard	Analog versus Digital Computers	Chalk and Board	Computer Baisc Parts & Types
2	December	December 1st Week		Mother board - Form factors , interface connections Bus:Introduction, types–processor bus, memory bus		Chalk and Board	Practically PCB's Demonstration
3		December 2nd Week		Bus- address bus, I/O Buses(PCI, PCI Express, AGP)	Adoptor, Interface Buses	Chalk and Board	BUS shown in Practical Session
4		December 3rd Week		Bus - Fire wire, USB , Microprocessor-Introduction , Processor specification	64 Bit & Plug n Play Buses	Chalk and Board	Microprocessors Sockets & Slots
5		December 4th Week		Microprocessor – Intel processors basics (8088, 486,P4& i3). Chipsets , Unit-II: Memory –Introduction to System logical memory layout	86X familiy (8086, 80286, 80386)	LCD PPT	PGA & SPGA grid Arrays
6		January 1st Week	2	Unit-II: Memory –Introduction to physical memory –Types ROM & RAM , Power Supply -Functions and operation Power Supply - Power protection systems (surge suppressors, line conditioners,	Difference between A.C & D.C voltages	Chalk and Board and LCD PPT	Logical memories, Preacautions due to Power Failures of PC

7	January	January 2nd Week		backup power-UPS/SPS), Input Devices - Keyboard, keyboard types,Keyboard switch design Input Devices - keyboard interface connectors	Keyboard & Mouse Basics	LCD PPT	Circuit layers & Kyeboard Controller
8		January 3rd Week	2	Mouse, mouse types and interfaces, Output devices – Touch screen/ Touch pad Output devices – Video Display – Monitors and types, Video card types		LCD PPT	Display Card comparisions
9		January 4th Week	3	Unit-III: Communications - Serial ports, parallel ports, components of LAN- LAN cables, network topologies.	Cable Data Transfer Rate	Chalk and Board	Data Transfer Serial & Parallel
10		January 5th Week		Sound card - Applications, installation. Hard Disk Drives - components,operations, interfaces (IDE,SATA, SCSI)	Connectors by Colors	Chalk and Board	Plottres, Sectirs, Tracks of HDD
11	February	February 1st Week		CD-ROM drives -CD technology, specification, storage capacities, and Drive formats.	Compare Optical & Magnetic media	LCD PPT	Plottres, Sectirs, Tracks of Optical Media
12		February 2nd Week		DVD-Introduction, working principle,storagecapacities BD-Blu ray Disc-Introduction, basics of USB	compare CD, DVD & BD	Chalk and Board	CD, DVD & BD Capacities of Data Storage
13		February 3rd Week	4	Unit-IV: Building a system - Tools for maintenance, Disassembly and reassembly procedures, Preventive maintenance, Active preventive maintenance,	Review of System Components	LCD PPT & LAB WORK	General Tools for PC
14		February 4th Week		Preventive maintenance, passive preventive maintenance, Diagnostic tools -POST, IBM Diagnostics	PC- Tools open source or licenced	LCD ppt	Precautions to work on PC
15		March 1st Week		Diagnostic tools - general purpose diagnostic programs, Disk Diagnostics, Operating systems software,boot process-dos/windows, Anti-virus and troubleshooting	Boot from CD OR HDD	Chalk and Board LCD PPT	Bootstrab Loader System File Names
		Learning Outcomes: • Be familiar with computer, hardware, software and bus structure. • Be able to identify the different mother board components connected to a computer. • Be familiar with processors, power supply and power protection systems with backup. • Be able to assemble a system and install various drivers andoperating systems. • Be able to troubleshoot and understand the basics of boot sequences, methods and startup utilities.					

BHAVAN'S VIVEKANANDA COLLEGE

TEACHING PLAN 2018-19

PROGRAM: BCA			**COURSE: DATA COMMUNICATION AND NETWORKING**
Name of the Faculty: M.Amitha	**Department: Computer Science**	**Year/Semester: I/II**	**No. of Classes per Week: 4 hrs/Theory**

Learning Objective:

To impart knowledge of layers in networking.
To familiarize with physical layer and media.
To have knowledge about data link layer and operations.
To have knowledge about the functionalities of network layer.

SNo	Month & Week	Units	Syllabus	Additional Input/Value Addition	Teaching Method	Student/ Learning activity	Review	Sign
1	Nov 3rd Week	1	Datacommunication, networks, protocols and standards.Layered tasks,OSI model		Chalk and board and LCD presentation			
2	Nov 4th Week		TCP/IP protocol suite,Addressing. Analog and Digital,periodic Analog signals,Digital signals	Differences between OSI and TCP/IP	Animated video (OSI $ TCP),Chalk and board and LCD presentationand Software to demonstrate analog waves			
3	Nov 5th Week		Tansmission impairments.Digital to Digital-line coding(unipolar,polar,bipolar),block coding		Chalk and board and LCD presentation	practice examples (line coding)		
4	Dec 1st Week	1 &2	analog to digital conversion(PCM,DM)2Analog transmission:digital to analog:ASK,PSK,PSK,QAM		Chalk and board and LCD presentation			
5	Dec 2nd Week		analog to analog (AM,FM,PM).Multiplexing:frequency-division,Wavelength-Division Multiplexing,Time -division multiplexing.		Chalk and board and LCD presentation			
6	Dec 3rd Week		Transmission media:Guided Media,unguided Media.Switching:Circuit switched networks		components to demostrate types of media,Chalk and board and LCD presentation	practical knowledge about media		
7	Dec 4th Week		Datagram networks,virtual circuit networks 3 Error detection and correction:introduction,block coding(error detection		Chalk and board and LCD presentation			
8	Jan 1st Week		Cyclic codes(CRC),checksum,Data link control:Framing(fixed,variable size),flow and error control,protocols,noiseless channels,		Chalk and board and LCD presentation			

9	Jan 2nd Week	2 & 3	noisy channels(stop and wait automatic repeat req,go-back-N automatic,selective repeat,piggybacking),HDLC.		Chalk and board and LCD presention			
10	Jan 3rd Week		Wired and Wireless LANs-Ethernet:IEEE standards(data link,physical layer)Standard Ethernet(MAC Sublayer,physical layer)		Chalk and board and LCD presentation			
11	Jan 4th Week		changes in the standard:bridged,switched,full-duplex ethernet)Fast ethernet (MAC Sublayer,physical layer)		Chalk and board and LCD presentation			
12	Feb 1st Week		Wireless LANs:IEEE 802.11 (Architecture,MAC sublayer,Addressing ,physical layer) connecting devices, backbone networks		components to demonstrate about HUB,ROUTER,bridges,switches, Chalk and	practical knowledge about		
13	Feb 2nd Week	3 &4	virtual LANs,4 Logical Addressing:IPV4 Address,IPV6 Address,internetworking		Chalk and board and LCD presentation			
14	Feb 3rd Week		Internet protocol:IPV4,IPV6.Address Mapping (ARP,RARP,BOOTP,DHCP)ICMP		Chalk and board and LCD presentation			
15	Feb 4th Week/ March		Direct and indirect Delivery ,Forwarding techniques,forwarding process,Routing table ,Unicast routing protocols(Optimization,intra and interdomain,Distance,link state,path vector)		Chalk and board and LCD presentation			
	Learning Outcomes: • **Be familiarized with fundamental concepts and terminologies in networking, seven layers of OSI model and digital transmission.** • **Be familiarized with analog transmission, transmission media and know about FDM, TDM. (Multiplexing techniques) and switching networks.** • **Acquire a sound knowledge about data link layer functionalities such as error detection, DLL protocols, LANs and connecting LANs.** • **Have a thorough understanding in functionalities of network layer such as addressing, internet protocols, mapping, forwarding, delivering and routing.**							

BHAVAN'S VIVEKANANDA COLLEGE

TEACHING PLAN 2018-19

Name of the Faculty: G Mahesh Kumar	Department: Computer Science	Year/Semester: BCA II/IV(GUI Programming and Data Structures)	No. of Classes per Week: (4 hrs/Theory)4 hrs Practicals

Learning Objectives:

To learn Collection of classes.
To learn legacy classes, utility classes and graphics.
To learn applets , event handling mechanisms and layout manager.
To learn swing components.

S.No	Month & Week	Units	Syllabus	Additional Input/Value Addition	Teaching Method	Student/ Learning activity
1	November 3rd Week	1	GUI Programming –Applet class-Two Types of Applets, Applet Basics, Applet Architecture, an Applet Skeleton, Simple Applet Display Methods,		Chalk and Black Board , Marker Board, LCD Projector	
2	November 4th Week		Event Handling-Two Event handling Mechanisms-Delegation Event Model -Event Classes-KeyEvent Class- Event Listener Interface ActionListener,		Chalk and Black Board , Marker Board, LCD Projector	Developing own applications based on concepts
3	November 5th Week		Handling Mouse Events, Handling Keyboard Events-Adapter Classes. AWT Controls: Labels, Buttons, CheckBox	Development of customized applications	Chalk and Black Board , Marker Board, LCD Projector	Developing own applications based on concepts
4	December 1st Week		CheckboxGroup, TextField, TextArea-Understanding Layout Managers-FlowLayout, BorderLayout, GridLayout.	Development of customized applications	Chalk and Black Board , Marker Board, LCD Projector	Developing own applications based on concepts
5	December 2nd Week	2	Introducing GUI Programming with Swing-The Origin of Swing, Swing is built on AWT, Two Key Swing Features, MVC Connection, Components and		Chalk and Black Board , Marker Board, LCD Projector	
6	December 3rd Week		Event Handling, Create a Swing Applet, Painting in Swing, Exploring Swing - JLabel and ImageIcon	Development of customized applications	Chalk and Black Board , Marker Board, LCD Projector	Developing own applications based on concepts
7	December 4th Week		JTextField, Swing Buttons - JScrollPane, JButton, JToggleButton, JCheckBox		Chalk and Black Board , Marker Board	Developing own applications based on concepts
8	January 1st Week		JRadioButton, JTabbedPane, JList, JComboBox, JTable	Development of customized applications	Chalk and Black Board , Marker Board, LCD Projector	

G. Mahesh

9	January 2nd Week	3	Data Structures Creation and Manipulation in Java –Introduction to Java Collections, Overview of Java		Chalk and Black Board , Marker Board	
10	January 3rd Week		List Interface, Set Interface, SortedSet Interface, Queue Interface, Deque Interface		Chalk and Black Board , Marker Board	
11	January 4th Week		Commonly used Collection Classes – ArrayList, LinkedList, HashSet,LinkedHashSet, TreeSet,		Chalk and Black Board , Marker Board	
12	February 1st Week	4	Accessing a Collection via an Iterator -Iteration over Collections – Iterator Interface, List Iterator		Chalk and Black Board , Marker Board	
13	February 2nd Week		Other Utility classes: StringTokenizer, Random, Formatter-Constructors, Methods, Formatting		Chalk and Black Board , Marker Board	
14	February 3rd Week		Using Format Flags, Justifying Output, Space, +,0, and (flags, comma flag,# flag, Uppercase Option,		Chalk and Black Board , Marker Board	
15	February 4th Week		Rectangles, Drawing Ellipses ,Circles, Arcs, Working with Color, Working with Fonts, Managing Text Output using FontMetrics.		Chalk and Black Board , Marker Board, LCD Projector	
	Learning Outcomes: Develop programs using applets, event handling mechanisms and layout managers. Develop programs using swing components. Develop programs using Collection of classes. Develop programs using legacy classes, utility classes and graphics.					

BHAVAN'S VIVEKANANDA COLLEGE
OF SCIENCE, HUMANITIES AND COMMERCE

PROGRAM: BCA		PAPER TITLE: DATABASE MANAGEMENT SYSTEMS	
Name of the Faculty: N Sharon Rosy	**Department:** Computer Science	**Year/Semester:** II/IV	**No. of Classes per Week:** (4 hrs/Theory)4 hrs Practicals

To impart knowledge of database concepts
To get equipped with information about database administration
To learn basic SQL commands(in lab)

S.No	Month & Week	Units	Syllabus	Additional Input/Value Addition	Teaching Method	Student/ Learning activity	Review	Sign
1	November 3rd Week	1	Database Environment- Basic Concpets and Definitions, Traditional File Processing Systems, Database Approach, Range of Database Applications	Diffrence between File Processing Systems and Database Approach	Chalk and Board/ LCD Presentations			
2	November 4thWeek		Advantages of Database Approach, Costs and Risks, Components of Database Environment, 3-schema		Chalk and Board/ LCD Presentations			
3	November 5th week		E-R Model- Sample E-R Model, E-R Notation, Entities- Types of Entities, Attributes- Types of Attributes, Relationships- Degree of Relationship, Cardinality	E-R Diagram representation along with relevant examples	Chalk and Board/ LCD Presentations	Individual Activity on		
4	December 1st Week	2	Enhanced E-R Model- Representing Super Type, Sub Type, Representing Specialization and Generalization	Differences between E-R Model and EER Model	Chalk and Board/ LCD Presentations			
5	December 2nd Week		Specifying Completeness Constraints, Specifying Disjointness Constraints, Specifying Subtype		Chalk and Board/ LCD Presentations			
6	December 3rd Week		Relational Model- Definitions, Integrity Constraints, Transforming EER Diagrams into Relations,Normalization: Basic Normal Forms(1NF, 2NF, 3NF), Merging Relations, Denormalization	How to convert E-R Diagram to its corresponding Relational Model	Chalk and Board/ LCD Presentations	Individual Activity on examples		
7	December 4th Week	3	Backing Up Databases and Concurrency control Access- Basic Recovery Facilities- Backup Facilities, Journalizing		Chalk and Board/ LCD Presentations			
8	January 1st Week		Recovery Manager, Recovery and Restart Procedures, Switch, Restore/Return, Transaction		Chalk and Board/ LCD Presentations			
9	January 2nd Week		Types of Database Failures, Aborted Transactions, Incorrect Data, System Failure, Database Destruction, The Problem of Lost Updates, Serializability, Locking		Chalk and Board/ LCD Presentations			

10	January 3rd Week		Locking Levels, Types of Locks, Deadlock, Managing Deadlock Data Dictionaries and Repositories					
11	January 4th Week		Locking Levels, Types of Locks, Deadlock, Managing Deadlock Data Dictionaries and Repositories		Chalk and Board/ LCD Presentations			
12	February 1st Week	4	Client-Server and Middleware- Client/Server Architectures. 3Tier Architecture-Partitioning,		Chalk and Board/ LCD Presentations			
13	February 2nd Week		Establishing Client/Server Security, Client/Server Issues- Distributed Databases- Introduction- Data Replication-		Chalk and Board/ LCD Presentations			
14	February 3rd Week		When to use Replication, Horizontal Partitioning, Vertical Partitioning, Combination of operations,		Chalk and Board/ LCD Presentations			
15	February 4th Week/March		Database Administration- Role of data and database administrators: Traditional data administration, Evolving approaches to data and database administration, Evolving apporaches to data		Chalk and Board/ LCD Presentations			
					Chalk and Board/ LCD Presentations			
	Learning Outcomes: By the time students completes the course, the students would acquire knowledge on database concepts. They will also be able to understand the technical and managerial roles of Database Administrator and Data Administrator. They also will be able to interact with Database using SQL (Lab)							

BHAVAN'S VIVEKANANDA COLLEGE

TEACHING PLAN 2018-19

PROGRAM: BCA	**PAPER TITLE: SYSTEM ANALYSIS AND LOGICAL DESIGN**

Name of the Faculty: B.Vijetha	**Department:** Computer Science	**Year/Semester:** II/IV	**No. of Classes per Week:** 4 hrs/Theory

Learning Objectives:

To understand System Analysis and Design

To understand identifying and selecting System Development Projects

To understand determining system requirements

To understand structuring System Requirements and Designing of Interfaces and Dialogues

S.No	Month & Week	Units	Syllabus	Additional Input/Value Addition	Teaching Method	Student/ Learning activity
1	November 3rd Week	1	The Systems Development Environment:Information Systems Analysis and Design-Application Software-Software Analyst, Data Information,		Chalk and board	
2	November 4thWeek		Key Differences between Process Oriented and Data Oriented Approach-Database Application Independence, Characteristics of Successful	Real time examples	Chalk and board and LCD presention	
3	November 5thWeek		Approaches to Improving Developing: Prototyping, Joint Application Design, Succeeding as a System Analyst: Analytical Skills for a System Analyst, Definition of a System and its parts, Importance of System Concepts(Decomposition, Modularity, Coupling, Cohesion), Decomposition Functions, LOgical and Physical Description		Chalk and board and LCD presention	Group discussion on System analyst responsibilities
4	December 1st Week	2	Identifying and Selecting System Development Projects, Corporate and Information Systems Planning,Top-Down and Bottom-Up Planning		Chalk and board and LCD presention	
5	December 2nd Week		E-Commerce application, Identifying and Selecting System Development Projects: Internet, E-Commerce, Intranet, Extranet, EDI		Chalk and board and LCD presention	
6	December 3rd Week		Initiating and Planning System Development Projects: The Process of Initiating and Planning, IS Development Projects, Elements of Project Planning, Statement of Work.		Chalk and board and LCD presention	

7	December 4th Week		Accessing Project Feasibility: Economic, Technical, Operational, Schedule, Legal, Contractual and Political, Guidelines for better Cost Estimating, Time Value Money, Accessing Technical Feasibility, Project Risk Assessment Factors	Examples on different feasibilities	Chalk and board and LCD presention	
8	January 1st Week	3	Determining System requiremenmts: Performing requirement determination, traditional methods for determining requirements: Interviewing and Listening,Guidelines for effective Interviewing,Choosing Interview questions,Interview Guidelines		Chalk and board and LCD presention	
9	January 2nd Week		Administering Questionnaires, Designing Questionnaires, Interviewing Groups, Modern methods for determining system requirements: Joint Application Design(JAD), Scribe(Definition), Radical Methods for System Requirements		Chalk and board	Seminar on JAD
10	January 3rd Week		Structuring System Requirements: Process ModelingData Flow Diagram, System Development Life Cycle with highlighting the Analysis phase (Diagram) , Deliverables for Process Modeling ,DFD Mechanics	Examples on DFD	Chalk and board and LCD presention	
11	January 4th Week		Context Diagrams(Definition), Simple Examples of DFD's,Incorrect ways and Correct ways to draw Data Flow Diagrams, Four Different types of DFD's		Chalk and board and LCD presention	
12	February 1st Week	4	Structuring System Requirements: Logic Modeling, Deliverables for Logical Modeling, Structured English, Modeling Logic with Decision Tables, Modeling Logic with Decision Trees.		Chalk and board and LCD presention	
13	February 2nd Week		Designing forms and Reports: Designing Forms and Reports ,Form ,Report , Fundamental Questions when Designing Forms and Reports ,Formatting Forms and Reports.		Chalk and board	
14	February 3rd Week		Designing Interfaces: System Development Life Cycle with highlighting the Design phase (Diagram), Deliverables and Outcomes, Interface (Definition) ,Interaction Methods & Devices ,Command Language Interaction		Chalk and board and LCD presention	Seminar on Design phase

15	February 4th Week/March		Pop-up menu, Drop Down menu, Guidelines for Menu Design, Form Interaction, Object Based Interaction, Icon, Natural Language		Chalk and board and LCD presention	
	Learning Outcomes: Be able to anlyze differents types of skills that are required for a System Analyst Be able to identify and select System Development Projects Be able to determine System Requirements and draw Data Flow Diagrams Be able to draw Decision Trees and Tables and also able to acquire knowledge on designing Interfaces and Dialogues					

BHAVAN'S VIVEKANANDA COLLEGE

TEACHING PLAN 2018-19

Name of the Faculty:	Department:	Subject : E-commerce	No. of Classes per Week:

Learning Objectives:

S.No	Month & Week	Units	Syllabus	Additional Input/Value Addition	Teaching Method	Student/ Learning activity
1	November 4th Week	1	E-Commerce: Introduction - Potential Benefits of E-commerce, Limitations, E-Business - E-Commerce - E-Business -Impact of E-Commerce on Business Models .		Chalk and Board	
2	November 5th Week		Classification of E-Commerce: B2B, B2C, C2B, C2C, B2E. Applications of E-Commerce: E-Commerce Organization Applications		Chalk and Board	
3	December 1st Week		E-Marketing - E-Advertising - E-Banking - Mobile Commerce - E-Trading - E-Learning - E-Shopping .		LCD presentation	
4	December 2nd Week		ICDT Business strategy model,Three pillars of E-commerce,Internet and WWW web as enablers of E-commerce.		Chalk and Board	**Seminars**
5	December 3rd Week		E-Commerce and the role of independent third parties,The waves of E-commerce,Impact of Ecommerce on traditional assurance,Security of data and business policiesprivacy of		Chalk and Board	
6	December 4th Week	2	EDI-Introduction,Traditional EDI System,The origin of EDI,Non-EDI systems,VAN,Partially integrated EDI system,Fully integrated EDI system,Benefits of EDI.		LCD presentation	Seminars
7	January 1st Week		Data transfer standards,Financial EDI,EDI systems and the internet,Risks of insecure systems-introduction,Overview of		Chalk and board and LCD presention	
8	January 2nd Week		Internet associated risks,sabotage by former employees,Threts from current employees,Financial fraud,social engineering		Chalk and Board	Seminars and assignments
9	January 3rd Week	3	Risk Management-Risk management paradigm,Disaster recovery plans & objectives..		Chalk and board and LCD presention	Seminars
10	January 4th Week		Internet standards-Introduction,standrd setting issues and committies-ANSI,UN/EDIFACT,Major standard setting		Chalk and board and LCD presention	
11	January 5th Week		Internet and www specific committies,security committies and organizations.		Chalk and Board	seminars and assignments

12	February 1st Week		security protocols and languages-domain names,FTP & TELNET,NNTP,HTTP,SGML,HTMLXML,DOM&DHTML,JAVA AND		Chalk and board and LCD presention	
13	February 2nd Week	4	Firewalls- Introduction,Definition,TCP/IP, OSI ,Components of a firewall,Typical functionalities of Firewall.		Chalk and Board	Seminars
14	February 3rd Week		packet filtering,Network address translation,Application level proxies,Real time monitoring.		Chalk and board and LCD presention	
15	February 4th Week		Network topology,Demilitarized zone,factors to consider in Firewall.,E-commerce payment Mechanisms-introduction,the SET protocol, Magnetic strip cards,E-checks,E-cash,FSTC & BIPS.		Chalk and Board	Seminars
	Learning Outcomes: 1.Students will be able to analyse the role of E-commerce on Independent Third parties & Impact of E-commerce on Business models 2.Students will be able to analyze about EDI & Risks of Insecure systems. 3.Students will be able to analyze about Risk management & Internet standards. 4.Students will be able to work with Firewalls & Online payment Systems.					

BHAVAN'S VIVEKANANDA COLLEGE

TEACHING PLAN 2018-19

Name of the Faculty: G Mahesh Kumar	Department: Computer Science	Year/Semester: BCA III/II (Information Security) VI	No. of Classes per Week: (4 hrs/Theory)

Learning Objectives:

To learn the need of security for an Information System.
To learn various laws and ethics in Information Security and its risk management factors.
To provide knowledge to plan for security by implementing security technology.
To provide knowledge on various Cryptographic Algorithms and Tools.

S.No	Month & Week	Units	Syllabus	Additional Input/Value Addition	Teaching Method	Student/ Learning activity
1	November 3rd Week	1	Introduction to Information Security: History, What is Security?, CNSS Security Model, Components of an Information System		Chalk and Black Board , Marker Board	
2	November 4th Week		Balancing Information Security and Access, The SDLC, The security SDLC.	SDLC Models	Chalk and Black Board , Marker Board, LCD Projector	**Discussion** on various SDLC Models.
3	November 5th Week		The Need for Security: Introduction, Business Needs First, Threats		Chalk and Black Board , Marker Board	
4	December 1st Week		Attacks- Secure Software Development.		Chalk and Black Board , Marker Board	
5	December 2nd Week	2	Legal, Ethical and professional Issues in Information Security: Introduction, Law and Ethics in Information Security, Relevant U.S Laws		Chalk and Black Board , Marker Board, LCD Projector	
6	December 3rd Week		International Laws and Legal Bodies, Ethics and Information Security.		Chalk and Black Board , Marker Board, LCD Projector	
7	December 4th Week		Risk Management: Introduction, An Overview of Risk Management, Risk Identification, Risk Assessment, Risk Control		Chalk and Black Board , Marker Board	
8	January 1st Week		Selecting a Risk Control Strategy, Quantitative versus Qualitative Risk Control Practices, Risk Management Discussion		Chalk and Black Board , Marker Board	
9	January 2nd Week	3	Planning for Security: Information Security Policy, Standards and Practices		Chalk and Black Board , Marker Board	
10	January 3rd Week		The Information Security Blueprint, Security Education, Training and Awareness Program, Continuity Strategies		Chalk and Black Board , Marker Board	

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11	January 4th Week		Security Technology-Firewalls and VPNs: Introduction, Access Control,Firewalls, Protecting Remote Connections.		Chalk and Black Board , Marker Board	
13	February 1st Week	4	Security Technology-Intrusion Detection, Access Control and Other Security Tools: Introduction, Intrusion Detection and		Chalk and Black Board , Marker Board	
14	February 2nd Week		Honeypots, Honeynets, and Padded Cell Systems, Scanning and Analysis Tools, Biometric Access Controls.		Chalk and Black Board , Marker Board, LCD Projector	
15	February 3rd Week		Cryptography: Introduction, Foundations of Cryptology, Cipher Methods	Latest Cipher Mechanisms	Chalk and Black Board , Marker Board	
16	February 4th Week		Cryptographic Algorithms, Cryptographic Tools, Protocols for Secure Communications, Attacks on Cryptosystems.		Chalk and Black Board , Marker Board	
	Learning Outcomes: Be familiar with the priority given to Security in Information System. Acquire knowledge on various Security related laws and risk management in Information System. Acquire knowledge to plan for security by implementing security technology. Be familiar with various Cryptographic Algorithms and Tools.					