' Academic Year; 2020-2021

Semester: 1

Department: BCA

Course Title: Programming in C part-I

Name of the teacher: Mr. Vijay Bapuso Pujari

Month: Ju	ıly		Module/Unit: 1	Sub-units planned
Lectures 15	Practical's 02	Total 17	Problem Solving Methods:	Problem Solving Methods: Problem definition, Steps in Problem Solving(Define Problem, Analyze Problem, Explore Solution).  ALGORITHM: Definition, notations, characteristics of algorithm, examples on algorithm. FLOWCHARTS: Definition, features of flowcharts, symbols, examples, coding, running, debugging-types of errors (syntax, logical, runtime errors.
Month: A	ugust	1.	Module/Unit: 2	Sub-units planned
Lectures Practical's Total 15 07 22			Introduction to c:	Introduction to c: History, features of c language, Character set, Identifiers: variables, constants, symbolic constants, keywords. Data types, Operators: Arithmetic, relational, logical, assignment, bitwise, increment/decrement and special operators, Concept of operator Precedence & December 1, Use of Comments, Header Files (conio, stdio, string, math). Structure of C Program, Input and Output Functions.
Month: Se	eptember		Module/Unit: 3	Sub-units planned
Lectures	Practical's	Total	Control Structures:	Control Structures: Conditional
15	05	20		statements: if, If-else nested if- else,switch statement. Loops: while, for, doWhile loop, Unconditional statements: Break, continue, exit, goto statement.
Month: October			Module/Unit: 4	Sub-units planned
Lectures	Practical's	Total	Arrays and Strings:	Arrays and Strings: Arrays- Meaning
15	07	22	H	and definition, Declaration, Initialization and types of arrays (single and multidimensional arrays).  Strings: Meaning and definition, Declaration, Initialization String functions strlen(), strrev(), strlwr(), strupr(), strcat(), strcmp(), strcpy().  Handling of characterarray.



Semester: I

Department: BCA

Course Title: Fundamental of Computers

Name of the teacher: Mrs. Megha Sagar Patil

Month: Ju	ly		Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	Introduction to Computers:	Introduction to Computers:
15	02	17	K	Introduction to computer, Characteristics of Computers, Block diagram of computer, History of computers, Generations of computer, Applications of computer, Types of computers and features: Mini, micro, mainframe and super, Types of Programming Languages: Machine Languages, Assembly Languages and High Level Languages.
Month: A	ugust		Module/Unit: 2	Sub-units planned
Lectures	Practical's	Total	Peripheral Devices and Number	Peripheral Devices and Number
15	02	17	Systems:	Systems: Types of Memory (Primary And Secondary): RAM, ROM, Secondary Storage Devices (FD, CD, HD, Pen drive), I/O Devices, Number Systems: Binary, Octal and Hexadecimal, Conversion from one base to another,
Month: Se	eptember		Module/Unit: 3	Sub-units planned
Lectures	Practical's	Total	Introduction to Software & ; Operating Environment:	Introduction to Software Operating Environment: Introduction to software,
15	03	18		Types of software: System, Application and utilities. Introduction to operating system, Types of O.S., Functions of O.S., Files and Directories, Batch Files Windows Operating Environment, Features of Windows, Control Panel, Taskbar, Desktop, Windows Application, Icons, Windows Accessories: Notepad and Paintbrush
Month: October			Module/Unit: 4	Sub-units planned
Lectures	Practical's	Total	Arrays and Strings:	Operating System: Operating system,
15	05	20	Arrays and Strings:	Evolution of operating system. Function of operating system. Types of operating systems. Detailed study of Windows Operating System. Introduction and Features of LINUX OS



Semester: I

Department: BCA

Course Title: Principles of Management Name of the teacher: Ms. Vaishali D. Patil

Month: Ju	ly		Module/Unit: 1	Sub-units planned
Lectures 15	Practical's	Total 15	Introduction to Management:	Introduction to Management: Definition of Management, nature and importance of management, Functions of Management, Levels of management, Role of Manager in Organization, Contribution of F.W. Taylor, Henry Fayol and Max Weber, Peter Drucker to management theory.
Month: A	ugust		Module/Unit: 2	Sub-units planned
Lectures	Practical's	Total	Planning Organizing and staffing:	Planning Organizing and staffing:
15		15		Planning: Meaning, Definition & Nature, Advantages and limitation, Steps and types of planning Organizing: Meaning, Definition & Defini
Month: Se	eptember		Module/Unit: 3	Sub-units planned
Lectures	Practical's	Total	Directing Motivation and leadership:	Directing Motivation and leadership :Directing- Introduction, Meaning,
15		15		Importance, Principle of directing, Leadership: Meaning & Definition, Theories of Leadership, Qualities of Leadership & Definition & De
Month: O	ctober		Module/Unit: 4	Sub-units planned
Lectures	Practical's	Total	Controlling and Trends in	Controlling and Trends in Management
15		15	Management	Management Information System: Meaning, Definition; Types of Information Management of Change: Meaning Definition & Defini





Academic Year: 2020-2021

Semester: I

Department: BCA

Course Title: Financial Accounting with tally.

Name of the teacher: Ms. Vaishali D. Patil.

Month: Ju	lv		Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total 15	Introduction to Financial Accounting	Introduction to Financial Accounting Meaning and Definition of Financial Accounting, Objectives of Accounting, Various users of Accounting Information, Accounting Terminologies, Accounting Concepts and Conventions, Double entry system, Types of Accounts and Golden rules of accounting.
Month: A	ugust		Module/Unit: 2	Sub-units planned
Month: August  Lectures Practical's Total  15 - 15		Total	Journal and Ledger	Journal and Ledger Journal, subsidiary Books, Cash Book, Ledger Posting
			Module/Unit: 3	Sub-units planned
Month: S Lectures	eptember Practical's	Total	Preparation of Financial Statements	Preparation of Financial Statements Trial Balance – Meaning, Definition, purpose and features, preparation of
15		15		Trial Balance. Final Accounts – Introduction, Objectives of Final Accounts, Adjustments before Preparing Final Accounts, Preparation of Trading Account, Profit and Loss Account, Balance Sheet.
Month:	October		Module/Unit: 4	Sub-units planned
Lectures		Total	Introduction to Tally and Reporting	Introduction to Tally and Reporting Tally History and Journey, Difference
15		15		between manual accounting v/s computerized accounting, Tally features, Tally Fundamentals - Company Data – Gateway of Tally, Creating and Maintaining a Company, Loading a Company, F11: Company Features, F12: Configuration. Voucher Entry, Inventory - Stock Groups, Stock Categories, Stock Items, Units of Measurement, Bills of Materials, Batches & Date & Date & Date & Profit and Loss A/C, Balance Sheet, Interest Calculations, Statutory Master CST Reports, Inventory report, Day Book, Use of Reports in Bussiness.



Academic Year: 2020-2021

Semester: 11

Department: BCA

Course Title: Programming in C part-II

Name of the teacher: Mr. Vijay Bapuso Pujari .

Month: De	ecember		Module/Unit: 1	Sub-units planned
Lectures 15	Practical's	Total	User defined functions:	User defined functions: Need, multi functioned program, form of a c function, return value and their type, calling a function, category of a functions, Actual and Formal arguments, functions with array, Storage classes: auto, external, static and register. Command line argument. Preprocessors-Introduction, types of Preprocessor.
Month: January			Module/Unit: 2	Sub-units planned
Lectures 15	Practical's 04	Total 19	Pointers:	Pointers: Understanding pointers, accessing address of variable, declaration and initializing pointers, pointer expression, pointer to array and functions, function call by value and by reference. Dynamic memory allocation-malloc(),calloc(),realloc().
Month: F	ebuary		Module/Unit: 3	Sub-units planned
Lectures 15	Practical's	Total 20	Structures and Unions:	Structures and Unions: Defining and processing a structure, array of structure, array within structure, structure within structure, Defining and processing a Unions. Difference between structure and union.
Month: March			Module/Unit: 4	Sub-units planned
Lectures 15	Practical's	Total	File Handling:	File Handling: Defining and opening a file, File opening mode- open, modify, write, Closing a file, Functions:fopen(), fclose(), fscanf(), Input/Output Operations on file: getc(), putc(), getw(), putw(), fprintf(), fscanf(), ftell() fseek(), rewind().



Semester: 11

Department: BCA

Course Title: Software Packages

Name of the teacher: Mrs. Megha S. Patil.

Month: De	ecember		Module/Unit; 1	Sub-units planned
Lectures	Practical's	Total	MS-OFFICE:	MS-OFFICE: Introduction to Ms-office, Components and features.
15	05	20		components and reatares.
Month: Ja	nuary		Module/Unit: 2	Sub-units planned
Lectures	Practical's	Total	MS-WORD	MS-WORD- Creating letter, table ,
15	05	20		fonts , page layout document formatting spell check, print preview, template, color, mail merge, auto text, inserting picture , word art.  MS EXCEL—Introduction to Excel, Sorting, Queries, Graphs, Scientific functions.
Month: Fo	ebuary		Module/Unit: 3	Sub-units planned
Lectures	Practical's	Total	POWER POINT	POWER POINT: Introduction to Power Point Creation of Slides, Inserting
15	05	20		pictures, Preparing slide show with animation.  MS-ACCESS - Creation and Manipulation of Files.
Month: March		Module/Unit: 4	Sub-units planned	
Lectures	Practical's	Total	Networking	Networking : Concept, Basic elements
15	02	17		of a Communication System, Data transmission media, Topologies, LAN, MAN, WAN, Internet



Semester: II

Department: BCA

Course Title: Bank Management

Name of the teacher: Mr. Raju Savant

Month: De	ecember		Module/Unit: 1	Sub-units planned
Lectures 15	Practical's	Total 15	Bank Organization:	Bank Organization: Meaning and concept of Bank Importance and Functions of Bank Meaning and concept of Bank Management- Customer centric v/s Business Centric management organizational set up of commercial bank-Bank organization- Role of Director, General manager- Important Provisions of and Branch manager Important Provisions of - Banking regulation Act- 1949.
Month: J	anuary		Module/Unit: 2	Sub-units planned
Lectures 15	Practical's 00	Total 15	Liquidity and credit Management	Liquidity and credit Management Liquidity policies- Day to Day management of the money position- Fund based credit management NPA- supervision and Follow up credit administration and monitoring of advances-Non fund based credit management-concept of Leasing and Hire purchase.RBI: Role as Regulator, Information about credit policy- Repo, Revise Repo, CRR Policy, RIB Selection
Month: I			Module/Unit: 3	Sub-units planned
Lectures	Practical's	Total	Customer service and ombudsman scheme:	Customer service and ombudsman scheme:
15	00	15		Customer Orientation, Basic Aspects of Customer Service: Deposit Accounts, Remittances Services, Collections Services, Loans and Advances, Discipline and Attitudes, Complaints, Other Services. Know Your Customer (KYC) Policy: Definition, Objective, Key Elements of KYC Policy, KYC and new technologies: Credit .Debit/Smart Cards.  Banking Ombudsman Scheme: Scope Complaints, Present Scenario.
Month; March			Module/Unit: 4	Sub-units planned
Lectures		Total	Capital Management and Information	Capital Management and Information
15	00	15	Technology	Technology Banking sector reforms- Capital adequacy-E- banking, E-money and Tele Banking- Cyber Law-Managemen Information system. Virtual Banking



Semester: II

Department: BCA

Course Title: Financial Accounting with tally Name of the teacher: Ms. Vaishali D. Patil

Month: De	ecember		Module/Unit: 1	Sub-units planned
Lectures 15	Practical's	Total 15	Final Accounts of Non-trading/Non-	Final Accounts of Non-trading/Non-profit making organizations-Preparation of Receipts and Payments A/C, Income and Expenditure A/C and Balance Sheet.
Month: Ja	nuary		Module/Unit: 2	Sub-units planned
Lectures 15	Practical's	Total 15	Accounting of Limited company	Accounting of Limited company- Types of shares and Debentures, Classification of Share Capital, Preparation of Profit and Loss A/C and Balance Sheet in vertical format.
Month: F	Month: Febuary		Module/Unit: 3	Sub-units planned
Lectures 15	Practical's	Total	Introduction to Tally:-	Introduction to Tally:-Introduction to GST, Features of tally, creation of company, Accounts only and Accounts with Inventory, Getway of Tally, Accounts configuration, Groups and Ledgers, Voucher entry with Bill wise details Interest computation, order processing., Cases
Month: March			Module/Unit: 4	Sub-units planned
Lectures 15	Practical's	Total	Reports	Reports- Profit and Loss A/C, Balance Sheet, . Statutory Master, CST Reports, TDS Repots, TCS Reports, Inventory Report, Day Book.



Semester: 11

Department: BCA

Course Title: Marketing Management Name of the teacher: Ms. Vaishali D. Patil

Month: De	ecember		Module/Unit: 1	Sub-units planned
Lectures 15	Practical's	Total 15	Introduction	Introduction: Meaning, & definition of Marketing, features of Marketing, Significance of marketing, core concepts of Marketing- Need, Want, Demand, Value, Satisfaction, exchange, transaction & relationship. Modern Marketing concept, holistic marketing & green marketing. Marketing in 21st Century- Challenges & opportunities.
Month: Ja	nuary		Module/Unit: 2	Sub-units planned
Lectures 15	Practical's	Total 15	Marketing Mix:	A) Marketing Mix: Elements in Micro & Micro environment, Analysis of their impact on Marketing function of an organization B) Marketing of Services- Meaning, Characteristics of services, problems in services Marketing, Outsourcing of I.T. services.
Month: F	ebuary		Module/Unit: 3	Sub-units planned
Lectures	Practical's	l's Total Marketing Research:	A) Marketing Research: - Meaning & importance, Steps in Marketing	
15	00	15		research process, Marketing Information System- concepts & components B) E-Marketing: Concept & techniques, significance of e-Marketing in 21st Century.
Month: N	larch		Module/Unit: 4	Sub-units planned
Lectures 15	Practical's 00	Total 15	Distribution Marketing Management	A) Distribution Marketing Management: Introduction, Need for Marketing Channels, Decision involved in setting up the channels, Channel Management strategy B) Consumer Behavior: Meaning & significance of consumer behavior, factors affecting consumer behavior.



(Mr. S. S. Kale)

Co-ordinator
Department of B.C.A.
Vivekanand College, Kolhapur

Academic Year: 2020-2021

Semester: III

Department: BCA

Course Title: Management Accounting

Name of the teacher: Mrs. Vaishali D. Patil

Month:	September		Module/Unit: 1	Sub-units planned
ectu es	Practical's	Total	Introduction to Management Accounting:-	Meaning and Nature of Management Accounting, Role of Management,
15	02	17		Accountant in Planning, Controlling and Decision Making, Difference between Financial Accounting and Management Accounting, Tools and Techniques of Management Accounting.
Month	ı: October		Module/Unit: 1	Sub-units planned
Lectur es	Practical	's Total	Financial Statement Analysis:-	Importance of Financial Statement Analysis, Techniques of
15	07	22	. ,	FinancialStatement Analysis- Ratio Analysis, Classification of Ratios- ProfitabilityRatio, Turnover Ratios, Liquidity Ratios, Solvency Ratios.
Mont	h: Novembe	r	Module/Unit: I	Sub-units planned
Lectu s			Cost-Volume- Profit(CVP)	Analysis and Decision Making- Break Even Analysis, Cost-Volume- ProfitAnalysis, Decision Making- Make
15	05	20		or Buy Decisions, Shut Down or ContinueDecisions, Alternative Course of Action etc.
Mon	Month: December		Module/Unit: 1	Sub-units planned
Lecti			Budgetary Control:-	Meaning of Budget and Budgetary Control, Objectives, Advantages,
15	07	22	A.	Limitations of Budgetary Control, Types of Budget- Production, Sales, Cash, Master Budget, Capital Expenditure, Budgeting.



Academic Year: 2020-2021

Semester: III

Department: BCA

Course Title: Human Resource Management

Name of the teacher: Mr. R. S. Sawant

Month: S	September		Module/Unit: 1	Sub-units planned
Lectu	Practical's	Total	Introduction to HRM:	Introduction , Concept, Definition, HRD, Functions of HRM , Organization of HRD
15	02	17		Role HRM ,Qualities of HR Manager, Limitations & challenges of HRM
Month:	October		Module/Unit: 1	Sub-units planned
Lectur Practical's Total		Total	Human resource Planning & Development :	Meaning and need of HRP , Process of HRP in I.T. Industry, Factors affecting HRP
15	07	22		, Job Analysis , Job Description, Recruitment and Selection procedures in I.T. Industry. Training and Development methods followed in I.T. Industry
Month:	November		Module/Unit: 1	Sub-units planned
Lecture	es Practical' s	Total	Virtual Organization :	Virtual Organization: meaning, type., Difference between Traditional and Virtual Organization., features of Virtual
15	05	20		Organization, HRM in Virtual Organization,
Month: December			Module/Unit: 1	Sub-units planned
Lecture	es Practic	Total	Employee Separation	Employee Separation practices in I.T. industry, Voluntary Retirement Schemes
15	07	22		, Resignation-Discharge-Dismissal- Suspension-Layoff, Exit interview,



Academic Year: 2020-2021

Semester: III

Department: BCA

Course Title: System Analysis and Design

Name of the teacher: K. C. Budhale

Month: Sc	ptember		Module/Unit: 1	Sub-units planned
ectu F es	Practical's	Total	Introduction to System Concepts:	1Definition , Elements of System 1.2Characteristics of System 1.3Types of System 1.4System Concepts
Month: C	etober		Module/Unit: 1	Sub-units planned
Lectur es	Practical's	Total	Requirement Analysis	2.1Definition of System Analysis 2.2Requirement Anticipation
15	07	22	ž.	<ul> <li>2.3Knowledge and Qualities of System</li> <li>Analyst</li> <li>2.4Role of a System Analyst</li> <li>2.5Feasibility Study And It's Types</li> <li>2.6Fact Gathering Techniques</li> <li>2.7SRS(System Requirement Specification)</li> </ul>
Month: 1	l Vovember		Module/Unit: 1	Sub-units planned
Lectures	Practical' s	Total	Introduction to Software Engineering	3.1Definition Need for software Engineering 3.2Software Characteristics
15	05	20		3.3Software Qualities ( McCall's Quality Factors  Software Development Methodologies  3.4 SDLC (System Development Life Cycle)  3.5 Waterfall Model  3.6 Spiral Model  3.7 Prototyping Model  3.8 RAD Model
Month:	December	-	Module/Unit: 1	Sub-units planned
Lecture	al's	Total	Analysis and Design Tools	4.1Entity-Relationship Diagrams 4.2Decision Tree and Decision Table
15	07	22		4.3Data Flow Diagrams (DFD) 4.4Data Dictionary 4.4.1 Elements of DD 4.4.2 Advantage of DD 4.6 CASE STUDIES (Based on Above Topic Software Testing 4.7 Definition, Test characteristics 4.8 Types of testing 4.8.1 Black-Box Testing 4.8.2 White-Box Testing



Academic Year: 2020-2021

Semester: III

Department: BCA

Course Title: Object Oriented Programming with C++

Name of the teacher: V. B. Pujari

Month:	September		Module/Unit: I	Sub-units planned
ectu	Practical's	Total	Principles of Objective Oriented Programming	History of OOP, Introduction to Object Oriented Programming, Basic Concepts of
15	02	17		Object Oriented Programming, Benefits of Object Oriented Programming, Object Oriented Languages, Difference between C and C++.  Beginning with C++:- Tokens, Keywords, Identifiers and Constants, Data Types, Type Compatibility, Variables, Operators in C++, Operator Precedence, Control Structures (Conditional, Unconditional and Looping).
Month:	October		Module/Unit: I	Sub-units planned
Lectur	Practical's	Total	Functions in C++, Classes & Objects	Concept of Function, main() Function, Inline Functions, Function Overloading,
<u>es</u> 15	07	22		Specifying a Class, Data members and Member Functions, Access Specifiers, Friend Function, Static data Member, Object declaration and Initialization, Arrays of Objects  Constructors & Destructors, Inheritance  Constructors-Definition, Use of Constructors, Types of Constructors (Default, Parameterized, Copy, Dynamic), Destructors-Definition, Use, Inheritance-Definition, Types of Inheritance (Single, Multiple, Multilevel, Hierarchical, Hybrid)
Montl	h: November	_	Module/Unit: 1	Sub-units planned
Lectu		Total	Pointers, Virtual Functions &Polymorphism	Pointer, Pointer to Object, this pointer, Pointer to Derived Classes, Polymorphism: Meaning, compile Time and Run time
15	05	20		polymorphism, Rules for Operator Overloading, Operator Overloading (Unary & Binary)-with member function and friend function.
Mon	th: December		Module/Unit: I	Sub-units planned
Lectu		Total	Working with Files	File-Definition, Use, Classes for File Stream Operations, Opening and Closing a
15	07	22	T:	File, File Opening Modes, File Pointers, Manipulation of File Pointer (using- seekg, seekp, tellg, tellp), Input Output Operations- get () Put (), read () Write ( ).



Academic Year: 2020-2021

Semester: IV

Department: BCA

Course Title: Entrepreneurship Development

Name of the teacher: Mrs. V. D. Patil

Month:	September		Module/Unit: I	Sub-units planned	
Lectu res	Practical's	Total	Introduction to Statistics:	Meaning and Scope of Statistics, Primary and Secondary data.	
15	02	17		Frequency, Frequency distribution, Qualitative and quantitative data, Discrete and Continuous variables.	
Month:	October	-	Module/Unit: 1	Sub-units planned	
Lectur es	Practical's	Total	Measures of Central Tendency and Dispersion:	Measures of Central Tendency and Dispersion	
15	07	22		2.1 Measures of central Tendency (Averages) 2.1.1 Meaning of averages, Requirements of good average 2.1.2 Definitions of Arithmetic mean (A.M.), Combined mean, Median, Quartiles, Mode, Relation between mean, median and mode.	
Month:	November		Module/Unit: I	Sub-units planned	
Lecture s	Practical 's	Total	Analysis of Bivariate data	3.1 Correlation 3.1.1 Concept of Correlation, Types of correlation (Positive,	
15	05	20		Negative, Linear and Non-linear), Methods of studying correlation: Scatter diagram, Karl Pearson's Correlation Coefficient (r) and Spearman's Rank Correlation Coefficient (R).	
Month:	Month: December		Module/Unit: 1	Sub-units planned	
Lecture	s Practi cal's	Total	Sampling Techniques and Time Series Analysis:	4.1 Sampling Techniques: 4.1.1 Definitions of Sample,	
15	07	22		Population, Sampling, Sampling Method and Census method. Advantages of sampling method over census method. 4.1.2 Types of sampling:	



Academic Year: 2020-2021

Semester: IV

Department: BCA

Course Title: Entrepreneurship Development

Name of the teacher: Mrs. V. D. Patil

Month:	March		Module/Unit: I	Sub-units planned
Lectu res 15	Practical's	Total	Entrepreneurship:-	Concept, Classification – Functions, Qualities of successful Entrepreneurship, Concept of Entrepreneur and entrepreneur. Entrepreneurship in modern Era.
Month:	April		Module/Unit: 1	Sub-units planned
Lectur es 15	Practical's	Total 22	Entrepreneurship Development:-	Concept, objectives, process, problems, measures in Entrepreneurship Development, Role of Entrepreneurship In Economic Development ( Theories), Institutional support for Entrepreneurship Development - National Institute for Entrepreneurship and Small Business Development ( NIESBD), Small Industry Development Bank of India ( SIDBI), District Industry Censes (DIC)
Month:	May		Module/Unit: I	Sub-units planned
Lecture	Practical' s	Total	Project Management:-	Project- classification of project, Stages of Project Management, Reasons for failure for, Project, Project for Retail stores, Hotel, Hospital, Dairy.
Month:	: June		Module/Unit: I	Sub-units planned
Lecture	al's	Total	Successful IT Indian Entrepreneurs:-	Ratan Tata, AzimPremji, Narayan Murthy, Anand Mahindra, Kumar Mangalam Birla,
15	07	22		NandanNilekani.



Academic Year: 2020-2021

Semester: IV

Department: BCA

Course Title: Web Technology

Name of the teacher: Mr. R. S. Sawant

Sub-units planned Module/Unit: 1 Month: March Internet and WWW: 1.1 Network, Client, Server, Practical's Total Lectu 1.2 What is Internet & Applications, res www 17 15 02 1.3 URL, DNS, Bbrowsers, Web Development: 2.1 :Introduction, features, steps in web development, . 2.2 Scripting Languages 2.3 HTML, structure 2.4 Basic Tags 2.5 Formatting tags, examples Sub-units planned Module/Unit: 1 Month: April 3.1 Heading and paragraph tags, font HTML tags: Total Practical's Lectur tag. tag es 3.2 List Tags-ordered and unordered 22 15 07 list tags: <BR>, <HR>.,<Marquee> 3.3 : Hyperlink, <A> Image and Image maps, <form> tag, form controls to design UI Sub-units planned Module/Unit: 1 Month: May 4.1 Introduction, Difference in Client-JAVA SCRIPT: Total Lecture Practical Side and Server-Side Script, features, 's introduction to Java script 4.2 keywords, data types, control 15 05 20 statements (if-else, looping) with examples 4.3 objects in java. Events and Event Handlers, 4.4 Dialogue boxes, Built-in functions and Validations Sub-units planned Module/Unit: 1 Month: June 5.1 ASP - Advantages and limitations, Introduction to Server-Side scripting Total Lectures Practi server set-up for ASP (PWS/IIS), built cal's in ASP objects 15 07 22 5.2 loop Structure, control structure (If-Else-Then), methods to get data from 5.3 Clients - (GET and POST), difference between GET and POST 5.4, database handling, connections and record set object. 5.5Case Studies: On line Shopping Website, University Website



Academic Year: 2020-2021

Semester: IV

Department: BCA

Course Title: Database Management System

Name of the teacher: Mrs. M. S. Patil

**Annual Teaching Plan** 

1onth: N	Aarch			Module/Unit: 1	Sub-units planned
ectu es	Practica 02	al's	Total	Introduction of Database	1.1 Introduction 1.2 Definition of DBMS 1.3 file processing system Vs DBMS 1.3.1 Limitation of file processing system 1.3.2 Comparison of File processing system and DBMS 1.4 Advantages and Disadvantages of DBMS 1.5 Users of DBMS 1.5.1 Database Designers 1.5.2 Application programmer 1.5.3 Sophisticated Users 1.5.4 End Users 1.6 Capabilities of good DBMS 1.7 Types of Database System: 1.7.1 Centralized database system 1.7.2 client-server system 1.7.3 Distributed database system.
Month:	April		1	Module/Unit: 1	Sub-units planned
Lectur Practical's Tota		Total	Organization of Database System	2.1 Introduction 2.2. Logical and Physical Files 2.2.1 Logical and Physical Files Definitions 2.2.2 File Structure 2.3 Basic File Operations 2.3.1 Opening Files 2.3.2 Closing Files	
15	07		22		2.3.3 Reading and Writing 2.3.4 Seeking 2.4 File Organization 2.4.1 Field and Record structure in file 2.4.2 Record Types 2.5 Types of file organization.
Month	: May			Module/Unit: I	Sub-units planned
Lectur		actical'	Total	Data Models	3.1 Introduction 3.2 Data Models 3.2.1 Object Based Logical Model 3.2.2 Record Base Logical Model a. Relational Model b
15	05	5	20		Network Model c. Hierarchical Model 3.3 Entity Relationship Model 3.3.1 Entity Set 3.3.2 Attribute 3.3.3 Relationship Set 3.4 E-R Model terms Introduction a. Relation b. Tuple c. Attribute d. Cardinality e. Degree f. Domain 3.5 Keys 3.5.1 Super Key 3.5.2 Candidate Key 3.5.3 Primary Key 3.5.4 Foreign Key
Mont	h: June			Module/Unit: I	Sub-units planned
Lectu	ıres	Practic al's	Total	Relational algebra	4.1 Introduction 4.2 Operations a. Select b. Project c. Union
15		07	22		d. Difference e. Intersection f. Cartesian Product g. Natural Join 4.3. SQL (Structured Query Language) 4.3.1 Introduction 4.3.2 History of SQL 4.3.3 Basic Structure 4.3.4 DDL Commands 4.3.5 DML Commands 4.3.6 Simple Queries 4.3.7 Nested Queries 4.3.8 Aggregate Functions 4.3.9

Academic Year: 2020-2021

Semester: IV

Department: BCA

Course Title: Organizational Behavior

Name of the teacher: Mrs. V. D. Patil

Month:	March		Module/Unit: 1	Sub-units planned	
Lectu res 15	Practical's	Total	Introduction to Organizational Behavior:	Definition, Importance, Scope, Fundamental Concepts of OB, Disciplines continuing to O.B. Evolution of O.B	
Month:	April	- W	Module/Unit: I	Sub-units planned	
Lectur es			Attitude, Values and Motivation:	Meaning of attitude, perception, Effects of employee attitudes, components of Attitude, Organizational Values, Importance of Motivation, Motivation process, Motivation model. Maslow's	
15	07	22		Need Hierarchy Theory	
Month:	: May		Module/Unit: 1	Sub-units planned	
	Lectures Practical' Total		Organizational culture, Quality Work Life and Stress Management :	A) Organization Culture & Stress Management: B) Stress Management C)	
15	05	20		Quality Work Life	
Month	: June		Module/Unit: I	Sub-units planned	
Lecture	es Practic	Total	Group Behavior ,Conflict and Stress:	Nature of Group. Types of Groups, Team Building and Effective team works, Stages	
15	07	22		of group Formation, Concept of conflict- Conflicts & Stress – Concept, why and how & Management5.5Case Studies: On line Shopping Website, University Website	



Academic Year: 2020-2021

Semester: IV

Department: BCA

Course Title: Mathematics Foundation
Name of the teacher: Miss Snehal Patil

				Module/Unit: 1	Sub-units planned
es Practical's		Total	SETS:	1.1 Meaning of a set. 1.2 Methods of describing of a set. 1.2.1 Tabular form 1.2.2 Set builder	
5	02		17		form 1.3 Types of a set 1.3.1 Finite set, Infinite set, Empty set, Subset, Universal set. 1.3.2 Equal sets, Disjoint sets, Complementary set. 1.4 Operation on Sets 1.4.1 Union of sets 1.4.2 Intersection of sets 1.4.3 Difference of sets. 1.5 De Morgan's Laws (without proof).
Month: April			Module/Unit: I	Sub-units planned	
		Total	Logic:	2.1 Introduction 2.2 Meaning of Statement (Proposition). 2.3 Simple and compound statements. 2.4 Truth values of a statement.2.5 Law of excluded middle.	
15	(	07	22		Sub-units planned
Mo	nth: M	1ay		Module/Unit: 1	3.1 Meaning of a matrix, Order of
1	ture	Practical 's	Total	Matrices:	matrix.3.2 Types of matrices 3.2.1 Row matrix, Column matrix, Null matrix, Unit matrix
15		05	20		Sub-units planned
Month: June			Module/Unit: I	4.1 Introduction to Graph 4.2 Kinds of	
	ctures		Total	Graph Theory	Graph 4.3 Digraph 4.4 Weighted
15	5	07	22		Graph 4.5 Degree of Vertex, Isolated Vertex



(Mr. S. S. Kale)

Co-ordinator
Department of B.C.A.
Vivekanand College, Kolhapur

Academic Year: 2020-2021

Course Title: Management Accounting Name of the teacher: Ms. Vaishali D.Patil Semester: V

Department: BCA

			Module/Unit: 1	Sub-units planned
onth: July	Practical's	Total	Introduction to Management Accounting:-	Meaning and Nature of Management
ectures	OO	15		Accounting, Role of Management, Accountant in Planning, Controlling and Decision Making, Difference between Financial Accounting and Management Accounting, Tools and Techniques of Management Accounting.
			Module/Unit: 2	Sub-units planned
Month: Au			Financial Statement Analysis:-	Importance of Financial Statement Analysis,
Lectures	Practical's	Total	Financial Statement	Techniques of FinancialStatement Analysis-
15	00	15		Ratio Analysis, Classification of Ratios- ProfitabilityRatio, Turnover Ratios, Liquidity Ratios, Solvency Ratios.
			Module/Unit: 3	Sub-units planned
Month: S	eptember		Cost-Volume- Profit(CVP)	Analysis and Decision Making- Break Even
Lectures	Practical's	Total	Introduction to Management	Analysis, Cost-Volume- ProfitAnalysis,
15	00	15	Accounting:- Introduction to Managemen Accounting:-	Decision Making- Make or Buy Decisions, Shut Down o Continue Decisions, Alternative Course of Action etc.
	1		Module/Unit: 4	Sub-units planned
Month: October			Budgetary Control:-	Meaning of Budget and Budgetary Contro
Lecture	s Practical's	Total	Budgetary Constant	Objectives, Advantages,
15	00	15		Limitations of Budgetary Control, Types of Budget- Production, Sales, Cash,



Semester: V

Department: BCA

Course Title: E Commerce

Name of the teacher: Mr. V.B. Pujari

			Module/Unit: 1	Sub-units planned	
onth: July			Introduction to E-Commerce:	Introduction to E-Commerce:	
tures	Practical's	Total	Introduction to E common s	Defining Commerce; Main Activities of	
	00	15		Electronic Commerce; Benefits of E-	
			1	Commerce; Broad Goals of Electronic	
				Commerce; Main Components of E-	
				Commerce; Functions of Electronic	
	\			Commerce – Communication, Process	
			21	Management, Service Management,	
		1		TransactionCapabilities; Limitations,	
		V		Challenges and opportunities, Process of E-	
	1			Commerce; Types of E-Commerce; Role of	
	1			Internet and Web in E-Commerce;	
				Technologies Used; E-Commerce Systems;	
				Technologies Used, E-confinered Systems	
				Pre-requisites of E-Commerce; Scope of E-	
				Commerce; E-Business Models. EDI-	
				Concept, Components, working mechanism	
			0	of EDI, Advantages and disadvantages of	
				EDI. Difference between E-Business and E-	
	K			Commerce,Introduction to M-Commerce.	
			Module/Unit: 2	Sub-units planned	
Month: A	ugust			Electronic payment System	
Lectures	Practical'		Electronic payment System	Concept of e-payment, Difference between	
15	00	15		traditional and electronics payment system,	
				UPI, NCPI, Digital cash, Credit and Debit card	
				system, Smart Card, E Wallet, Prepaid, post	
				paid and instant payment system, Electronic	
				funds transfer, Concept of e-banking	
				Sub-units planned	
Month:	September		Module/Unit: 3	E Security	
Lecture	1	l's Total	E-Security	Concept of F-security. Security threats-	
15	00	15		concept and types, Malicious code, Phishing and identity theft, Hacking and cyber	
13				Landalism Credit Card IIduu/IIIcis	
				Spoofing, Denial of service (DoS), Firewar	
				and proxy server.	
			Module/Unit: 4	Sub-units planned	
Month: October				Security Solutions	
Lectur	la sta		Security Solutions	Concept of encryption and decryption	
15	()()	15		Symmetric and asymmetric key encryption Cipher text, Digital Envelopes, Digital	
				certificates. Security socket layer (33)	
				Limitations of encryption solutions.	



Semester: V

Department: BCA

Course Title: Computer Network

Name of the teacher: Mrs. Megha S. Patil.

			Module/Unit: 1	Sub-units planned
ionth: July	y Practical's	Total	1Basics of Data communication	1Basics of Data communication 1.1. Data Communication concept
ectures 5	00	15		1.1.1 Components-sender, receiver, message, transmission media 1.1.2 Data Flow- simplex, half-duplex, or full-duplex 1.2 Networks 1.2.1 Definition, Advantages and disadvantages 1.2.2 Categories of Networks- LAN, WAN. MAN
			Module/Unit: 2	Sub-units planned
Month: A			Transmission media and Reference Models	Transmission media and Reference Models
Lectures	Practical's	Total	Transmission means	2.1 Transmission Media 2.1.1 Guided Media - Twisted-Pair Cable,
15	00	15		Coaxial Cable, Fiber-Optic Cable 2.1.2 Unguided Media: Radio Waves Microwaves, Infrared, satellite communication 2.2 Transmission Modes- Parallel and Serial (Asynchronous, Synchronous)
			Module/Unit: 3	Sub-units planned
Month: S	September		Data link, Network and Transport layer	Data link, Network and Transport layer 12 3.1 Data link Layer- 3.1.1Design issues 3.1.2 Framing, error detection and
Lectures	Practical's	Total	Data lilly, News	
15	00	15		correction 3.2 Network layer 3.2.1 design issues of network layer 3.2.2 Routing algorithm (shortest path, Flooding, distance vector,) 3.2.3 Congestion control 3.3 Transport layer 3.3.1 Transport Layer Primitives: listen, connect, send, receive, disconnect 3.3.2 Protocols: TCP, UDP
N.A. alla	Outobox		Module/Unit: 4	Sub-units planned
	()ctober	Total	Session, Presentation and Application	4.1 Session layer: 4.1.1 Services: dialog management,
Lecture 15	es Practical's	15	layer	synchronization, activity management, exception handling 4.1.2 Remote procedure calls 4.2 Presentation layer: 4.2.1 Services: Translation, compression, encryption 4.2.2 Cryptography: concept, symmetric key & asymmetric key cryptography



Course Title: RDBMS with Oracle

iame of the			Module/Unit: 1	Sub-units planned
4onth: July	Practical's	Total	Relational Database Management System	Relational Database Management System: 1.1 Concept of RDBMS, Difference between
ectures 5	05	20		DBMS and RDBMS, Features of RDBMS.  1.2 Introduction of Oracle, Role and responsibilities of DBA.  1.3 RDBMS Terminology- Relation, Tuple, Cardinality, Attribute, Degree, Primary Key, Domain, Codd's Rules  1.4 Relational Model, Functional Dependencies, Normalization and its types.
			Module/Unit: 2	Sub-units planned
Month: A			Introduction to sql	INTRODUCTION TO SQL:
Lectures 15	Practical's	Total 22	Introduction to sq.	2.1 Features of SQL, Data types, 2.2 Classification of SQL Commands – DDL (create, alter, drop), DML (insert, update, delete), DCL (grant, revoke), TCL (rollback, commit). 2.3 SQL Integrity Constraints-(Primary key, Foreign key, unique key, not null, default, check) 2.4 Select statement with group by and order by clause 2.5 SQL Operators-arithmetic, relational, Logical, Like, Between, IN operator 2.6 SQL Functions- Arithmetic functions, Conversion Functions, Date function,
l,				Aggregate functions, String functions.  Sub-units planned
Month:	September		Module/Unit: 3	IOIN AND SUB OUERIES:
Lectures 15	The stant's	Total 22	Join and sub queries:	3.1 Join types - Inner Join, Outer Join, Cross Join and self-Join 3.2 Sub-queries, Multiple sub queries, nesting of sub queries, sub queries in DML commands. 3.3 Correlated queries, Indexes, Sequences Views-Create View, Drop, View and its Advantages. , Denial of service (DoS) Firewall and proxy server.
			Module/Unit: 4	Sub-units planned
Month	: October		Introduction to pl/sql	INTRODUCTION TO PL/SQL:
Lectur 15	es Practica	Total 22	Introduction to prysqu	4.1 Introduction to PL/SQL, Block Structure 4.2 Data types in PL-SQL 4.3 Control Structures-Branchin statements, Iterative Control statements. 4.4 Cursors –Concept, Types- Implic Explicit, Procedure to create explicit cursors, Cursor Attributes. 4.5 TRIGGERS: Concept and types.



Semester: V

Department: BCA

Academic Year: 2020-2021

, Course Title: Visual Programming

Name of the teacher: Mr. R. S. Sawant

Sub-units planned Module/Unit: 1 Month: July Introduction 12 Introduction 1.1 overview, Architecture, Features of .NET Total Practical's Lectures 1.2 Meta data, CLR, Managed and 17 02 15 unmanaged code 1.3 CTS, CLS, .NET base classes 1.4 Introduction to Visual Studio .NET IDE 1.5 Types of JIT compiler Sub-units planned Module/Unit: 2 Month: August Introduction To C# 12 Introduction To C# 2.1 Introduction to C#, Entry point method, Total Practical's Lectures command line arguments 22 15 2.2 Compiling and building projects, Compiling a C# program using command line utility, CSC.EXE, Different valid forms of 2.3 Global stack and heap memory, reference type and data type, castingimplicit and explicit 2.4 Boxing and unboxing, pass by value and pass by reference and out parameters Sub-units planned Module/Unit: 3 Month: September Introduction to Web Programming 12 Introduction to Web Programming 3.1 Understanding role of WEB server and Total Practical's Lectures WEB browser, HTTP request and response structure. 20 05 15 3.2 Introduction to ASP, Types of path, FORM tag 3.3 Types of server controls 3.4 Validation controls-Base validator, compare validator, range validator, grouping control validator 3.5 Web forms life cycle 3.6 Event handling in WEB forms, response.redirect, server.response, cross page post back property of button 3.7 ASP.NET state management globalization and WEB.config, localization, AppDomain Sub-units planned Module/Unit: 4 Month: October ADO .NET 12 ADO .NET 4.1 Introduction to ADO.Net Total Lectures Practical's 4.2 ADO.NET Architecture- Conncetion, 22 07 15 command, dat reader, data adapter, data set 4.3 Understanding connected layaer of ADO.NET and disconnected layer of ADO.NET



Semester: VI

Department: BCA

, Course Title: Strategic Management

Name of the teacher: Ms. Vaishali D. Patil.

Month: Dec	ember		Module/Unit: 1	Sub-units planned
	Practical's	Total	Introduction to Strategic Management	Introduction to Strategic Management Concept of Mission, Vision, Objectives,
ectures 5	00	15		Concept of Strategy, Importance of Strateg Levels of Strategy, Strategic Management Process – Different Phases.
			Module/Unit: 2	Sub-units planned
Month:Jar		-		Environment Analysis
Lectures	Practical's	Total	Environment Analysis	Concept and Characteristics of environment,
15	00	15	compon SWOC, 0 environ	components of internal environment, SWOC, Components of external environment, PESTEL Framework – Porter's Five Forces Model.
			Module/Unit: 3	Sub-units planned
Month: February			Strategies Types and Analysis	Strategies Types and Analysis
Lectures 15	Practical's	Total	Strategies Types and Analysis	Corporate strategies: stability strategy expansion strategy, retrenchment strategy; adv/disadv. Competitive strategy: cosleadership, Differentiation and Focustrategy – Types – adv/disadv. BCG Matrix, TOWS Matrix, ANSOFF Matrix.
			Module/Unit: 4	Sub-units planned
Month:	March			Strategic Evaluation and Control
Lectures	Practical's	Total	Strategic Evaluation and Control	Strategic evaluation: imp, problems -
15	00	15	Strategic Evaluation and Control	Benchmarking for strategy evaluation. Strategic Control: Types and techniques or strategic control, -operational control-managing strategic change-types, mechanism and process of managing strategic change-strategy in global environment-Social & environmental sustainability issues in strategic management, Triple bottom line—Role of Different Strategists-Contemporary practices of strategic management.



Semester: VI

Department: BCA

Course Title: Data warehousing and data mining

Name of the teacher: Mrs. Megha S. Patil.

onth: Dec	ember		Windule/Unit: 1	ub-units planned
ctures	Practical's	Total	Introduction to Data Willing	ntroduction to Data Mining .1 Basic Data mining Task
ctures	00	15		.2 DM versus Knowledge Discovery in Databases .3 Data Mining Issues .4 Data Mining Metrics .5 Social implementation of Data Mining .6 Overview of Application of Data mining .6.1 Architecture of DW .6.2 OLAP and Data Cubes .6.3 Dimensional Data Modeling - star , snowflake schemas .6.4 Data processing - Need Data cleaning. Data integration and Transformation, Data reduction .6.5 machine learning .6.6 pattern matching
Month: Ja	nuary		Module/Unit: 2	Sub-units planned
ectures	Practical's	Total	Data Mining techniques	Data Mining techniques 2.1 Frequent item - set and association rule
.5	00	15	Modulo/Hinit: 3	mining: apriori algorithm, use of sampling for frequent item- set tree algorithm  2.3.4 Classification and regression tree(CART)  2.3.5 Bayesians Classification [ 6 hrs]  2.3.6 Bayesians theorem , Narvee Bayes classifier  2.3.7 Bayesian networks  2.3.8 Inference  2.3.9 Parameter and structure learning  2.3.10 Leaner classification [4 hrs]  2.3.11 Least squares, logistics , perception and SVM classifiers  2.3.12 Prediction [3 hrs]  2.3.13 Linear regression  2.3.14 Non-linear regression
Month:	February		Module/Unit: 3	Clustering
Lectures	Practical's	Total	Clustering	3.1 K-means
15	00	15		algorithm 3.3 Hierarchical clustering , Carrolto clustering
Month: March			Module/Unit: 4	Sub-units planned
Month: March  Lectures Practical's Total		Total	Software for Data mining and application of Data mining	4.1 R 4.2 Weka
15	00	15		4.3 Sample applications of data mining



Department: BCA

, Course Title: Linux Operating System

Name of the teacher: Mr. Vijay B. Pujari.

Ionth: December			Module/Unit: 1	Sub-units planned
ectures 5	Practical's	Total 17	Introduction	Introduction 1.1 Operating system 1.2 Types of operating system 1.3 Functions of operating system 1.4 History and development of Linux 1.5 Features of Linux 1.6 Login, logout procedure, Concept of shell, kernel, Kernel-shell relationship
Monthy la	nuary		Module/Unit: 2	Sub-units planned
Month: January  Lectures Practical's Total			Handling files and directory's	Handling files and directory's 2.1 Concept of file, types, file system tree
Lectures	07	22		2.2 Different GPU ( clear ,cal , date, wc, who )  2.3 file handling- ls ,cat ,cp, mv , rm commands , listing file names, using meta characters (*, ?,[]).  2.4 Concept of directory , home directory , directory handling commands- cd , mkdir, rmdir,pwd.  2.5 Basic file attributes, change file/directory, chmod command  2.6 Filters-cut, paste, sort, unique, head, tail, grep commands.  2.7 Command linking using pipe ( ) operator, command substitution.
Month: February			Module/Unit: 3	Sub-units planned
Lectures Practical's Total		Total	VI editor	VI editor  3.1 Vi Editor, use of VI, features of VI  3.3 Different modes and working with VI
15	05	20		editor 3.4 Command mode -cursor movements( k,j,h,l), delete( character, line, word), Screen up , down, use of repeat factor , joining lines (J), searching for pattern ( / and ?) 3.5 Input mode- switching with ( l,o,r,s,a,l,O,R,S,A) 3.6 ex mode – saving ( w, x, q)
Month: March			Module/Unit: 4	Sub-units planned
Lecture		Total	Simple Shell programming	Simple Shell programming 4.1 Concept of Shell Script, running a siscript 4.2 Statements – read, echo, test, if, caexit. 4.3 Loops- while, until, for 4.4 Command line arguments 4.5 Exit status of a command
15	05	20		



Course Title: Java Programming

Name of the teacher: Mr. R. S. Sawant

Semester: VI

Department: BCA

Module/Unit: 1 Sub-units planned Month: December Introduction To Java Introduction To Java Lectures Total Practical's 1.1 History and features Java 17 15 02 Programming 1.2 Difference between Java & C++ 1.3 Java Environment 1.4 Java tokens, constants, variables, data types, type casting 1.5 Operators and Expressions 1.6 Implementing Java Program 1.7 Branching and looping statements 1.8 Class, objects, methods 1.9 Constructors and destructor Module/Unit: 2 Sub-units planned Month: Jnuary Inheritance and Packages Inheritance and Packages Lectures Practical's Total 2.1 Defining sub class, subclass constructor 15 07 22 2.2 Inheritance-Multiple and hierarchical 2.3 Defining packages, system packages 2.4 Creating & accessing packages 2.5 Adding a class to package 2.6 Polymorphism- function overloading and over ridding, its difference Module/Unit: 3 Sub-units planned Month: February Multithreading and Exception Handling Multithreading and Exception Handling Lectures Practical's Total 3.1 Creating threads, extending a thread class- declaring the class, run() 15 20 05 method 3.2 Stopping and blocking threads 3.3 Life cycle of thread 3.4 Using thread method 3.5 Thread priority 3.6 Introduction to exception 3.7 Syntax of exception handling code 3.8 Multiple catch statement 3.9 Using finally statement 3.10 Throwing exception Module/Unit: 4 Sub-units planned Month: March Applets Programming & Introduction to Applets Programming & Introduction to Lectures Practical's Total AWT **AWT** 15 05 20 4.1 Introduction to applets 4.2 Building applet code 4.3 Applet life cycle 4.4 Adding applet code to HTML file 4.5 Introduction to Abstract Window Toolkit





(AWT)

Co-ordinator
Department of B.C.A.
Vivekanand College, Kolhapur