Annual Teaching Plan

Academic Year: 2019-2020 **Semester: I** **Department: BCA**

Course Title: Programming in C part-I

Name of the teacher: Mr. Vijay Bapuso Pujari

Month: July			**Module/Unit: 1**	**Sub-units planned**
Lectures	Practical's	Total	**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.
15	02	17		
Month: August			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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 & Associatively. Comments-types of comments, Use of Comments, Header Files (conio,stdio,string,math). Structure of C Program, Input and Output Functions.
15	07	22		
Month: September			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Control Structures:**	Control Structures: Conditional statements: if, If-else nested if-else,switch statement. Loops: while, for, do...While loop, Unconditional statements: Break, continue, exit, goto statement.
15	05	20		
Month: October			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Arrays and Strings:**	Arrays and Strings: Arrays- Meaning 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.
15	07	22		

Academic Year: 2019-2020 **Semester: I** **Department: BCA**

Course Title: Fundamental of Computers

Name of the teacher: Mrs. Megha Sagar Patil

Month: July			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Introduction to Computers:**	Introduction to Computers: 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.
15	02	17		
Month: August			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Peripheral Devices and Number Systems:**	Peripheral Devices and Number 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,
15	02	17		
Month: September			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	Introduction to Software & ; Operating Environment:	Introduction to Software Operating Environment: Introduction to software, 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
15	03	18		
Month: October			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Arrays and Strings:**	Operating System: Operating system, Evolution of operating system. Function of operating system. Types of operating systems. Detailed study of Windows Operating System. Introduction and Features of LINUX OS.
15	05	20		

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

Academic Year: 2019-2020 **Semester: I** **Department: BCA**

Course Title: Principles of Management

Name of the teacher: Mr. Raju S. Sawant

Month: July			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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.
15	--	15		
Month: August			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Planning Organizing and staffing:**	Planning Organizing and staffing: Planning: Meaning, Definition & Nature, Advantages and limitation, Steps and types of planning Organizing: Meaning, Definition & Importance, principles of Organization. Formal and Informal Organization (Formal & Informal organization, Virtual organization.), Staffing: Meaning Definition, Process, Aspect of staffing, Recrutment and Selection, Methods of Traning and the devlopment
15	--	15		
Month: September			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Directing Motivation and leadership :**	Directing Motivation and leadership :Directing- Introduction, Meaning, Importance, Principle of directing, Leadership: Meaning & Definition, Theories of Leadership, Qualities of Leadership & Types of Leaders Motivation: Meaning, definition & importance of motivation, Theories of motivation –Maslow's Hierarchy Theory, Herzberg's theory & Theory X , Y.Communication- Types, Problems
15	--	15		
Month: October			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Controlling and Trends in Management**	Controlling and Trends in Management Management Information System: Meaning, Definition; Types of Information Management of Change: Meaning Definition & Forms or Types of Changes, Corporate Social Responsibilities. Controlling :- Meaning, Importance, Steps in Control Process, Types of control-Feed forward control, Concurrent control & feedback control, Techniques of control. Recent trend in Management, Contemporary issues in management.
15	--	15		

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: I** **Department: BCA**

Course Title: Financial Accounting with tally.

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

Month: July			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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.
15	--	15		
Month: August			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Journal and Ledger**	Journal and Ledger Journal, subsidiary Books, Cash Book, Ledger Posting
15	--	15		
Month: September			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Preparation of Financial Statements**	Preparation of Financial Statements Trial Balance – Meaning, Definition, purpose and features, preparation of Trial Balance. Final Accounts – Introduction, Objectives of Final Accounts, Adjustments before Preparing Final Accounts, Preparation of Trading Account, Profit and Loss Account, Balance Sheet.
15	--	15		
Month: October			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Introduction to Tally and Reporting**	Introduction to Tally and Reporting Tally History and Journey, Difference 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 & Expiry Dates. Reports - Profit and loss account, Balance sheet, Profit and Loss A/C, Balance Sheet, Interest Calculations, Statutory Master, CST Reports, Inventory report, Day Book, Use of Reports In Bussiness.
15	--	15		

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: II** **Department: BCA**

Course Title: Programming in C part-II

Name of the teacher: Mr. Vijay Bapuso Pujari .

Month: December			**Module/Unit: 1**	**Sub-units planned**
Lectures	**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. Pre-processors-Introduction, types of Pre-processor.
15	04	19		
Month: January			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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().
15	04	19		
Month: Febuary			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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.
15	05	20		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	**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().
15	02	17		

Academic Year: 2019-2020 **Semester: II** **Department: BCA**

Course Title: Software Packages

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

Month: December			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**MS-OFFICE:**	MS-OFFICE: Introduction to Ms-office, Components and features.
15	05	20		
Month: January			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**MS-WORD**	MS-WORD– Creating letter, table , 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.
15	05	20		
Month: Febuary			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**POWER POINT**	POWER POINT: Introduction to Power Point Creation of Slides, Inserting pictures, Preparing slide show with animation. MS-ACCESS - Creation and Manipulation of Files.
15	05	20		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Networking**	Networking : Concept, Basic elements of a Communication System, Data transmission media, Topologies, LAN, MAN, WAN, Internet
15	02	17		

Academic Year: 2019-2020 **Semester: II** **Department: BCA**

Course Title: Bank Management

Name of the teacher: Mr. Raju Savant

Month: December			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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.
15	00	15		
Month: January			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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
15	00	15		
Month: Febuary			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Customer service and ombudsman scheme:**	Customer service and ombudsman scheme: 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 of Complaints, Present Scenario.
15	00	15		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Capital Management and Information Technology**	Capital Management and Information Technology Banking sector reforms- Capital adequacy-E- banking, E-money and Tele Banking- Cyber Law-Management Information system. Virtual Banking
15	00	15		

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Academic Year: 2019-2020 **Semester: II** **Department: BCA**

Course Title: Financial Accounting with tally

Name of the teacher: Ms. Vaishali D. Patil

Month: December			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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.
15	00	15		
Month: January			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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.
15	00	15		
Month: Febuary			**Module/Unit: 3**	**Sub-units planned**
Lectures	**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
15	00	15		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Reports**	Reports- Profit and Loss A/C, Balance Sheet, . Statutory Master, CST Reports, TDS Repots, TCS Reports, Inventory Report, Day Book.
15	00	15		

VIVEKANAND COLLEGE KOLHAPUR (AUTONOMOUS) ESTD JUNE 1964

Academic Year: 2019-2020 **Semester: II** **Department: BCA**

Course Title: Financial Accounting with tally

Name of the teacher: Ms. Vaishali D. Patil

Month: December			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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.
15	00	15		
Month: January			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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.
15	00	15		
Month: Febuary			**Module/Unit: 3**	**Sub-units planned**
Lectures	**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
15	00	15		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Reports**	Reports- Profit and Loss A/C, Balance Sheet, . Statutory Master, CST Reports, TDS Repots, TCS Reports, Inventory Report, Day Book.
15	00	15		

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

Academic Year: 2019-2020 **Semester: II** **Department: BCA**

Course Title: Marketing Management

Name of the teacher: Ms. Vaishali D. Patil

Month: December			**Module/Unit: I**	**Sub-units planned**
Lectures	**Practical's**	**Total**	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.
15	00	15		
Month: January			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	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.
15	00	15		
Month: Febuary			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	Marketing Research:	A) Marketing Research: - Meaning & importance, Steps in Marketing research process, Marketing Information System- concepts & components B) E-Marketing: Concept & techniques, significance of e-Marketing in 21st Century.
15	00	15		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	Practical's	Total	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.
15	00	15		

VIVEKANAND COLLEGE KOLHAPUR (AUTONOMOUS) ESTD JUNE 1964

(Mr. S. S. Kale)

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

Annual Teaching Plan

Academic Year: 2019-20 **Semester: III** **Department: BCA**

Course Title: Management Accounting

Name of the teacher: Mrs. Vaishali D. Patil

Month: September			Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	**Introduction to Management Accounting:-**	Meaning and Nature of Management Accounting, Role of Management, Accountant in Planning, Controlling and Decision Making, Difference between Financial Accounting and Management Accounting, Tools and Techniques of Management Accounting.
15	02	17		
Month: October			Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	**Financial Statement Analysis:-**	Importance of Financial Statement Analysis, Techniques of Financial Statement Analysis- Ratio Analysis, Classification of Ratios- Profitability Ratio, Turnover Ratios, Liquidity Ratios, Solvency Ratios.
15	07	22		
Month: November			Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	**Cost-Volume- Profit(CVP)**	Analysis and Decision Making- Break Even Analysis, Cost-Volume- Profit Analysis, Decision Making- Make or Buy Decisions, Shut Down or Continue Decisions, Alternative Course of Action etc.
15	05	20		
Month: December			Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	**Budgetary Control:-**	Meaning of Budget and Budgetary Control, Objectives, Advantages, Limitations of Budgetary Control, Types of Budget- Production, Sales, Cash, Master Budget, Capital Expenditure, Budgeting.
15	07	22		

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: III** **Department: BCA**

Course Title: Human Resource Management

Name of the teacher: Ms. Vaishali D. Patil

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

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: III** **Department: BCA**

Course Title: System Analysis and Design

Name of the teacher: Mrs. Megha S. Patil

<table>
<tr><td colspan="3">Month: September</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Introduction to System Concepts:</td><td rowspan="2">1Definition , Elements of System
1.2Characteristics of System
1.3Types of System
1.4System Concepts</td></tr>
<tr><td>15</td><td>02</td><td>17</td></tr>
<tr><td colspan="3">Month: October</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Requirement Analysis</td><td rowspan="2">2.1Definition of System Analysis
2.2Requirement Anticipation
2.3Knowledge and Qualities of System Analyst
2.4Role of a System Analyst
2.5Feasibility Study And It's Types
2.6Fact Gathering Techniques
2.7SRS(System Requirement Specification)</td></tr>
<tr><td>15</td><td>07</td><td>22</td></tr>
<tr><td colspan="3">Month: November</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Introduction to Software Engineering</td><td rowspan="2">3.1Definition Need for software Engineering
3.2Software Characteristics
3.3Software Qualities (McCall's Quality Factors
Software Development Methodologies
3.4 SDLC (System Development Life Cycle)</td></tr>
<tr><td>15</td><td>05</td><td>20</td></tr>
<tr><td colspan="3">Month: December</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Analysis and Design Tools</td><td rowspan="2">4.1Entity-Relationship Diagrams
4.2Decision Tree and Decision Table
4.3Data Flow Diagrams (DFD)
4.4Data Dictionary
4.4.1 Elements of DD
4.4.2 Advantage of DD
4.5 Input And Output Design
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
4.8.3 Unit testing
4.8.4 Integration testing
4.9 Validation & Verification</td></tr>
<tr><td>15</td><td>07</td><td>22</td></tr>
</table>

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

Annual Teaching Plan

Academic Year: 2019-2020 **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
Lectures	Practical's	Total	**Principles of Objective Oriented Programming**	History of OOP, Introduction to Object Oriented Programming, Basic Concepts of 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)
15	02	17		
Month: October			Module/Unit: I	Sub-units planned
Lectures	Practical's	Total	**Functions in C++, Classes & Objects**	Concept of Function, main() Function, Inline Functions, Function Overloading, Specifying a Class, Data members and Member Functions, Access Specifies, 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)
15	07	22		
Month: November			Module/Unit: I	Sub-units planned
Lectures	Practical's	Total	**Pointers, Virtual Functions &Polymorphism**	Pointer, Pointer to Object, this pointer, Pointer to Derived Classes, Polymorphism: Meaning, compile Time and Run time polymorphism, Rules for Operator Overloading, Operator Overloading (Unary & Binary)-with member function and friend function.
15	05	20		
Month: December			Module/Unit: I	Sub-units planned
Lectures	Practicals	Total	**Working with Files**	File-Definition, Use, Classes for File Stream Operations, Opening and Closing a File, File Opening Modes, File Pointers, Manipulation of File Pointer(using-seekg,seekp,tellg,tellp), Input Output Operations- get ( ) Put ( ), read ( ) Write ( )
15	07	22		

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: III** **Department: BCA**

Course Title: Object Oriented Programming with C++

Name of the teacher: V. B. Pajari

Month: September			Module/Unit: I	Sub-units planned
Lectures	Practical's	Total	**Principles of Objective Oriented Programming**	History of OOP, Introduction to Object Oriented Programming, Basic Concepts of 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).
15	02	17		
Month: October			Module/Unit: I	Sub-units planned
Lectures	Practical's	Total	**Functions in C++, Classes & Objects**	Concept of Function, main() Function, Inline Functions, Function Overloading, Specifying a Class, Data members and Member Functions, Access Specifies, 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)
15	07	22		
Month: November			Module/Unit: I	Sub-units planned
Lectures	Practical's	Total	**Pointers, Virtual Functions &Polymorphism**	Pointer, Pointer to Object, this pointer, Pointer to Derived Classes, Polymorphism: Meaning, compile Time and Run time polymorphism, Rules for Operator Overloading, Operator Overloading (Unary & Binary)-with member function and friend function.
15	05	20		
Month: December			Module/Unit: I	Sub-units planned
Lectures	Practical's	Total	**Working with Files**	File-Definition, Use, Classes for File Stream Operations, Opening and Closing a File, File Opening Modes, File Pointers, Manipulation of File Pointer(using-seekg,seekp,tellg,tellp), Input Output Operations- get ( ) Put ( ), read ( ) Write ( )
15	07	22		

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: III** **Department: BCA**

Course Title: Computer Oriented Statistical Methods

Name of the teacher: Mr. A. A. Powar

<table>
<tr><td colspan="3">Month: September</td><td>Module/Unit: I</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Introduction to Statistics:</td><td rowspan="2">Meaning and Scope of Statistics, Primary and Secondary data. Frequency, Frequency distribution, Qualitative and quantitative data, Discrete and Continuous variables. 1.3 Representation of frequency distribution by graphs: Histogram, Frequency polygon, Frequency curve, O give curve. 5 Definition: Random Experiment, Sample space, Event and Types of Events. Classical Definition of Probability of an Event. Conditional Probability.</td></tr>
<tr><td>15</td><td>02</td><td>17</td></tr>
<tr><td colspan="3">Month: October</td><td>Module/Unit: I</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Measures of Central Tendency and Dispersion:</td><td rowspan="2">Measures of Central Tendency and Dispersion
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.
2.1.3 Merits and Demerits of Mean, Median and Mode
2.1.4 Numerical examples based on 2.1.2
2.1.5 Determination of Median and Mode by Graph</td></tr>
<tr><td>15</td><td>07</td><td>22</td></tr>
<tr><td colspan="3">Month: November</td><td>Module/Unit: I</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Analysis of Bivariate data :</td><td rowspan="2">3.1 Correlation
3.1.1 Concept of Correlation, Types of correlation (Positive, Negative, Linear and Non-linear), Methods of studying correlation: Scatter diagram, Karl Pearson's Correlation Coefficient (r) and Spearman's Rank Correlation Coefficient (R).</td></tr>
<tr><td>15</td><td>05</td><td>20</td></tr>
<tr><td colspan="3">Month: December</td><td>Module/Unit: I</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Sampling Techniques and Time Series Analysis :</td><td rowspan="2">4.1 Sampling Techniques:
4.1.1 Definitions of Sample, Population, Sampling, Sampling Method and Census method. Advantages of sampling method over census method.</td></tr>
<tr><td>15</td><td>07</td><td>22</td></tr>
</table>

VIVEKANAND COLLEGE ESTD JUNE 1964 (Autonomous)

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: IV** **Department: BCA**

Course Title: Organizational Behavior

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

Month: March			Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	**Introduction to Organizational Behavior:**	Definition, Importance, Scope, Fundamental Concepts of OB, Disciplines continuing to O.B. Evolution of O.B
15	02	17		
Month: April			Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	**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 Need Hierarchy Theory
15	07	22		
Month: May			Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	**Organizational culture, Quality Work Life and Stress Management :**	A) Organization Culture & Stress Management: B) Stress Management C) Quality Work Life
15	05	20		
Month: June			Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	**Group Behavior ,Conflict and Stress:**	Nature of Group. Types of Groups, Team Building and Effective team works, Stages of group Formation, Concept of conflict-Conflicts & Stress – Concept, why and how & Management5.5Case Studies: On line Shopping Website, University Website
15	07	22		

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: IV** **Department: BCA**

Course Title: Web Technology

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

<table>
<tr><td colspan="3">Month: March</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Internet and WWW :</td><td rowspan="2">1.1 Network, Client, Server,
1.2 What is Internet & Applications, WWW
1.3 URL, DNS, Browsers,
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</td></tr>
<tr><td>15</td><td>02</td><td>17</td></tr>
<tr><td colspan="3">Month: April</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">HTML tags :</td><td rowspan="2">3.1 Heading and paragraph tags, font tag. <table> tag
3.2 List Tags-ordered and unordered list tags:
, <HR>.,<Marquee>
3.3 : Hyperlink, <A> Image and Image maps, <form> tag, form controls to design UI</td></tr>
<tr><td>15</td><td>07</td><td>22</td></tr>
<tr><td colspan="3">Month: May</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">JAVA SCRIPT :</td><td rowspan="2">4.1 Introduction, Difference in Client-Side and Server-Side Script, features, introduction to Java script
4.2 keywords, data types, control statements (if-else, looping) with examples
4.3 objects in java. Events and Event Handlers,</td></tr>
<tr><td>15</td><td>05</td><td>20</td></tr>
<tr><td colspan="3">Month: June</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Introduction to Server-Side scripting :</td><td rowspan="2">5.1 ASP – Advantages and limitations, server set-up for ASP (PWS/IIS), built in ASP objects
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</td></tr>
<tr><td>15</td><td>07</td><td>22</td></tr>
</table>

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: IV** **Department: BCA**

Course Title: Database Management System

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

<table>
<tr><td colspan="3">Month: March</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Introduction of Database</td><td rowspan="2">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</td></tr>
<tr><td>15</td><td>02</td><td>17</td></tr>
<tr><td colspan="3">Month: April</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Organization of Database System</td><td rowspan="2">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
2.3.3 Reading and Writing</td></tr>
<tr><td>15</td><td>07</td><td>22</td></tr>
<tr><td colspan="3">Month: May</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Data Models</td><td rowspan="2">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. 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</td></tr>
<tr><td>15</td><td>05</td><td>20</td></tr>
<tr><td colspan="3">Month: June</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Relational algebra</td><td rowspan="2">4.1 Introduction 4.2 Operations
a. Select b. Project c. Union
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 5.5Case Studies: On line Shopping Website, University Website</td></tr>
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</table>

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: V** **Department: BCA**

Course Title: Management Accounting

Name of the teacher: Ms. Vaishali D.Patil

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

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: IV** **Department: BCA**

Course Title: Mathematics Foundation

Name of the teacher: Miss Snehal Patil

<table>
<tr><td colspan="3">Month: March</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">SETS:</td><td rowspan="2">1.1 Meaning of a set.
1.2 Methods of describing of a set. 1.2.1 Tabular form 1.2.2 Set builder 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</td></tr>
<tr><td>15</td><td>02</td><td>17</td></tr>
<tr><td colspan="3">Month: April</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Logic :</td><td rowspan="2">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. 2.6 Logical Operations: Negation, Conjunction, Disjunction, Implication, Double Implication.</td></tr>
<tr><td>15</td><td>07</td><td>22</td></tr>
<tr><td colspan="3">Month: May</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Matrices :</td><td rowspan="2">3.1 Meaning of a matrix, Order of matrix.3.2 Types of matrices 3.2.1 Row matrix, Column matrix, Null matrix, Unit matrix</td></tr>
<tr><td>15</td><td>05</td><td>20</td></tr>
<tr><td colspan="3">Month: June</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">Graph Theory</td><td rowspan="2">4.1 Introduction to Graph 4.2 Kinds of Graph : Simple, Multi and Pseudo Graph 4.3 Digraph 4.4 Weighted Graph 4.5 Degree of Vertex, Isolated Vertex
4.6 Path, Cycle, A-Cycle, 4.7 Types of Graph: Complete, Regular, Bi-Partite, Complete Bi-partite, Isomorphism of Graph
4.8 Matrix Representation of Graph: Adjacency and Incidence Matrix 4.9 Operation on Graph: Union, Intersection, Complement, Product of Graphs, Fusion of Graphs 4.10 Examples based on above.</td></tr>
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VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Mr. S. S. Kale)

Co-ordinator

Department of B.C.A.

Vivekanand College, Kolhapur

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: IV** **Department: BCA**

Course Title: Mathematics Foundation

Name of the teacher: Miss Snehal Patil

<table>
<tr><td colspan="3">Month: March</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
<tr><td>Lectures</td><td>Practical's</td><td>Total</td><td rowspan="2">SETS:</td><td rowspan="2">1.1 Meaning of a set.
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<tr><td colspan="3">Month: May</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
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<tr><td colspan="3">Month: June</td><td>Module/Unit: 1</td><td>Sub-units planned</td></tr>
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4.8 Matrix Representation of Graph: Adjacency and Incidence Matrix 4.9 Operation on Graph: Union, Intersection, Complement, Product of Graphs, Fusion of Graphs 4.10 Examples based on above.</td></tr>
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VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

(Mr. S. S. Kale)

Co-ordinator

Department of B.C.A.

Vivekanand College, Kolhapur

Annual Teaching Plan

Academic Year: 2019-2020 **Semester: V** **Department: BCA**

Course Title: Management Accounting

Name of the teacher: Ms. Vaishali D.Patil

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

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Academic Year: 2019-2020 **Semester: V** **Department: BCA**

Course Title: E Commerce

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

Month: July			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Introduction to E-Commerce:**	Introduction to E-Commerce: Defining Commerce; Main Activities of Electronic Commerce; Benefits of E-Commerce; Broad Goals of Electronic Commerce; Main Components of E-Commerce; Functions of Electronic Commerce – Communication, Process Management, Service Management, TransactionCapabilities; Limitations, Challenges and opportunities, Process of E-Commerce; Types of E-Commerce; Role of Internet and Web in E-Commerce; Technologies Used; E-Commerce Systems; Pre-requisites of E-Commerce; Scope of E-Commerce; E-Business Models. EDI-Concept, Components, working mechanism of EDI, Advantages and disadvantages of EDI. Difference between E-Business and E-Commerce,Introduction to M-Commerce.
15	00	15		
Month: August			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Electronic payment System**	Electronic payment System Concept of e-payment, Difference between 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.
15	00	15		
Month: September			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**E-Security**	E-Security Concept of E-security, Security threats-concept and types, Malicious code, Phishing and identity theft, Hacking and cyber vandalism, Credit card fraud/Theft, Spoofing, Denial of service (DoS), Firewall and proxy server.
15	00	15		
Month: October			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Security Solutions**	Security Solutions Concept of encryption and decryption, Symmetric and asymmetric key encryption, Cipher text, Digital Envelopes, Digital certificates, Security socket layer (SSL), Limitations of encryption solutions.
15	00	15		

VIVEKANAND COLLEGE ESTD JUNE 1964 (Autonomous)

Academic Year: 2019-2020 **Semester: V** **Department: BCA**

Course Title: Computer Network

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

Month: July			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**1Basics of Data communication**	1Basics of Data communication 1.1. Data Communication concept 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
15	00	15		
Month: August			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Transmission media and Reference Models**	Transmission media and Reference Models 2.1 Transmission Media 2.1.1 Guided Media - Twisted-Pair Cable, 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) 2.3 Reference Models 2.3.1 OSI reference model 2.3.2 TCP/IP reference model
15	00	15		
Month: September			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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 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
15	00	15		
Month: October			Module/Unit: 4	Sub-units planned
Lectures	Practical's	Total	**Session, Presentation and Application layer**	4.1 Session layer: 4.1.1 Services: dialog management, synchronization, activity management, exception handling 4.1.2 Remote procedure calls 4.2 Presentation layer: 4.2.1 Services: Translation, compression, encryption
15	00	15		

Academic Year: 2019-2020 **Semester: V** **Department: BCA**

Course Title: RDBMS with Oracle

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

Month: July			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Relational Database Management System**	Relational Database Management System: 1.1 Concept of RDBMS, Difference between 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.
15	05	20		
Month: August			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Introduction to sql**	INTRODUCTION TO SQL: 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, Aggregate functions, String functions.
15	07	22		
Month: September			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Join and sub queries:**	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.
15	07	22		
Month: October			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Introduction to pl/sql**	INTRODUCTION TO PL/SQL: 4.1 Introduction to PL/SQL, Block Structure 4.2 Data types in PL-SQL 4.3 Control Structures-Branching statements, Iterative Control statements. 4.4 Cursors -Concept, Types- Implicit, Explicit, Procedure to create explicit cursors, Cursor Attributes. 4.5 TRIGGERS: Concept and types.
15	07	22		

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Academic Year: 2019-2020 **Semester: V** **Department: BCA**

Course Title: Visual Programming

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

Month: July			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Introduction**	Introduction 12 1.1 overview, Architecture, Features of .NET 1.2 Meta data, CLR, Managed and unmanaged code 1.3 CTS, CLS, .NET base classes 1.4 Introduction to Visual Studio .NET IDE 1.5 Types of JIT compiler
15	02	17		
Month: August			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Introduction To C#**	Introduction To C# 12 2.1 Introduction to C#, Entry point method, command line arguments 2.2 Compiling and building projects, Compiling a C# program using command line utility, CSC.EXE, Different valid forms of main. 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 2.5 Partial class, DLL, Difference between DLL and EXE
15	07	22		
Month: September			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Introduction to Web Programming**	Introduction to Web Programming 12 3.1 Understanding role of WEB server and WEB browser, HTTP request and response structure. 3.2 Introduction to ASP, Types of path, FORM tag 3.3 Types of server controls
15	05	20		
Month: October			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**ADO .NET**	ADO .NET 12 4.1 Introduction to ADO.Net 4.2 ADO.NET Architecture- Conncetion, command, dat reader, data adapter, data set 4.3 Understanding connected layaer of ADO.NET and disconnected layer of ADO.NET
15	07	22		

VIVEKANAND COLLEGE KOLH ESTD JUNE 1964 (Autonomous)

Academic Year: 2019-2020 **Semester: VI** **Department: BCA**

Course Title: Strategic Management

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

Month: December			Module/Unit: 1	Sub-units planned
Lectures	Practical's	Total	Introduction to Strategic Management	Introduction to Strategic Management Concept of Mission, Vision, Objectives, Concept of Strategy, Importance of Strategy, Levels of Strategy, Strategic Management Process – Different Phases.
15	00	15		
Month:January			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Environment Analysis**	Environment Analysis Concept and Characteristics of environment, components of internal environment, SWOC, Components of external environment, PESTEL Framework – Porter's Five Forces Model.
15	00	15		
Month: February			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Strategies Types and Analysis**	Strategies Types and Analysis Corporate strategies: stability strategy, expansion strategy, retrenchment strategy.- adv/disadv. Competitive strategy: cost leadership, Differentiation and Focus Strategy – Types – adv/disadv. BCG Matrix, TOWS Matrix, ANSOFF Matrix.
15	00	15		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Strategic Evaluation and Control**	Strategic Evaluation and Control Strategic evaluation: imp, problems - Benchmarking for strategy evaluation. Strategic Control : Types and techniques of 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.
15	00	15		

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Academic Year: 2019-2020 **Semester: VI** **Department: BCA**

Course Title: Data warehousing and data mining

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

Month: December			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Introduction to Data Mining**	Introduction to Data Mining 1.1 Basic Data mining Task 1.2 DM versus Knowledge Discovery in Databases 1.3 Data Mining Issues 1.4 Data Mining Metrics 1.5 Social Implementation of Data Mining 1.6 Overview of Application of Data mining 1.6.1 Architecture of DW 1.6.2 OLAP and Data Cubes 1.6.3 Dimensional Data Modeling - star , snowflake schemas 1.6.4 Data processing - Need Data cleaning. Data integration and Transformation, Data reduction 1.6.5 machine learning 1.6.6 pattern matching
15	00	15		
Month: January			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Data Mining techniques**	Data Mining techniques 2.1 Frequent item - set and association rule 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
15	00	15		
Month: February			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Clustering**	Clustering 3.1 K-means 3.2 expectation maximization (EM) algorithm 3.3 Hierarchical clustering , Carrolton clustering
15	00	15		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Software for Data mining and application of Data mining**	Software for Data mining and application of Data mining 4.1 R 4.2 Weka 4.3 Sample applications of data mining
15	00	15		

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

Academic Year: 2019-2020 **Semester: VI** **Department: BCA**

Course Title: Linux Operating System

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

Month: December			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**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
15	02	17		
Month: January			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Handling files and directory's**	Handling files and directory's 2.1 Concept of file, types, file system tree 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.
15	07	22		
Month: February			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**VI editor**	VI editor 3.1 Vi Editor, use of VI , features of VI 3.3 Different modes and working with VI 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 (I,o,r,s,a,I,O,R,S,A) 3.6 ex mode – saving (w, x, q)
15	05	20		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	**Simple Shell programming**	Simple Shell programming 4.1 Concept of Shell Script, running a shell script 4.2 Statements – read , echo , test , If, case , exit. 4.3 Loops- while, until, for 4.4 Command line arguments 4.5 Exit status of a command
15	05	20		

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

Academic Year: 2019-2020 **Semester: VI** **Department: BCA**

Course Title: Java Programming

Name of the teacher: MS. Shivani S. Kagale.

Month: December			**Module/Unit: 1**	**Sub-units planned**
Lectures	**Practical's**	**Total**	Introduction To Java	Introduction To Java 1.1 History and features of Java 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
15	02	17		
Month: Jnuary			**Module/Unit: 2**	**Sub-units planned**
Lectures	**Practical's**	**Total**	Inheritance and Packages	Inheritance and Packages 2.1 Defining sub class, subclass constructor 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
15	07	22		
Month: February			**Module/Unit: 3**	**Sub-units planned**
Lectures	**Practical's**	**Total**	Multithreading and Exception Handling	Multithreading and Exception Handling 3.1 Creating threads, extending a thread class- declaring the class, run() 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
15	05	20		
Month: March			**Module/Unit: 4**	**Sub-units planned**
Lectures	**Practical's**	**Total**	Applets Programming & Introduction to AWT	Applets Programming & Introduction to AWT 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)
15	05	20		

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Mr. S. S. Kale)

Co-ordinator

Department of B.C.A.

Vivekanand College, Kolhapur