VIVEKANAND COLLEGE, KOLHAPUR(AUTONOMOUS)

STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- 1st Term**

Name of teacher- Mr. Vijay Bapuso Pujari **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A I Sem-I	Programming in C (part-I)	**Module I** **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.)	**Module I** **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.)	.....	
		Module II **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 unctions.	**Module II** **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.	.....	
		Module III **Control Structures:** Conditional statements: if, If-else nested if-else, switch statement. Loops: while, for, do...While loop, Unconditional statements: Break, continue, exit, gotostatements.	**Module III** **Control Structures:** Conditional statements: if, If-else nested if-else, switch statement. Loops: while, for, do...While loop, Unconditional statements: Break, continue, exit, goto statements.	.....	

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

		Module IV **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 character array.OS.	**Module IV** **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 character array.	.....	
B.C.A III Sem-V	**Visual Programming**	**Module: Introduction** 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	**Module:Introduction** 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	.....	
		Module II 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, casting implicit and explicit 2.4 Boxing and unboxing, pass by value and pass by reference and outparameters 2.5 Partial class, DLL, Difference between DLL and EXE	**Module II 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, casting implicit and explicit 2.4 Boxing and unboxing, pass by value and pass by reference and outparameters 2.5 Partial class, DLL, Difference between DLL and EXE	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		Module-III : Introduction to Web Programming 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 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 3.8 WEB.config, globalization and localization, AppDomain	**Module-III : Introduction to Web Programming** 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 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 3.8 WEB.config, globalization and localization, AppDomain	.....	
		Module IV 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	**Module 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.NET4.9 Validation &Verification	.....	

(Signature of the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)

STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- I[st]**

Name of teacher- Ms. Vaishali D. Patil **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A I Sem-I	Fiancial Accounting with Tally	**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. Books of Prime Entry, Subsidiary Books and Ledger Creation.	**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. Books of Prime Entry, Subsidiary Books and Ledger Creation.	.....	
		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.	**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.	.....	
		Introduction to Tally 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.	**Introduction to Tally** 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.	.....	
		Report: Profit and Loss A/C, Balance Sheet, Interest Calculations, Statutory Master-VAT, Inventory report, Day Book, Use of Reports in Business	**Report:** Profit and Loss A/C, Balance Sheet, Interest Calculations, Statutory Master-VAT, Inventory report, Day Book, Use of Reports in Business	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

B.C.A II Sem-III	**Entrepreneurship Development**	Entrepreneurship:- Concept, Classification – Functions, Qualities of successful Entrepreneurship , Concept of Entrepreneur and Intrapreenur. Entrepreneurship in modern Era.	Entrepreneurship:- Concept, Classification – Functions, Qualities of successful Entrepreneurship , Concept of Entrepreneur and Intrapreenur. Entrepreneurship in modern Era.	.....	
		Entrepreneurship Development:- Concept, objectives, process, problems, measures in Entrepreneurship Development , Role of Entrepreneurship In Economic Development (Theories), Institutional support for Entrepreneurship Development - National Institute	Entrepreneurship Development:- Concept, objectives, process, problems, measures in Entrepreneurship Development , Role of Entrepreneurship In Economic Development (Theories), Institutional support for Entrepreneurship Development - National Institute	.....	
		Project Management:- Company formation, forms of business organization project- classification of project, Stages of Project Management, Reasons for failure for, Project, Project for Retail stores, Hotel, Hospital, Dairy. (Practical: student should visit any firm and prepre project report)	Project Management:- Company formation, forms of business organization project- classification of project, Stages of Project Management, Reasons for failure for, Project, Project for Retail stores, Hotel, Hospital, Dairy. (Practical: student should visit any firm and prepre project report)	.....	
		Successful Indian Entrepreneurs:- Ratan Tata, Azim Premji, Narayan Murthy, Anand Mahindra, Kumar Mangalam Birla, Nandan Nilekani.	Successful Indian Entrepreneurs:- Ratan Tata, Azim Premji, Narayan Murthy, Anand Mahindra, Kumar Mangalam Birla, Nandan Nilekani.	.....	
B.C.A III Sem-V	**Cost Accounting**	**Introduction to cost Accounting:** Concept of cost, costing, Cost Accounting and Cost Accountancy, Objectives, Advantages and Limitations of Cost Accounting, Difference between cost Accounting & Financial Accounting, CostUnit and cost centre. Elements of Cost, Preparation of cost sheet.	**Introduction to cost Accounting:** Concept of cost, costing, Cost Accounting and Cost Accountancy, Objectives, Advantages and Limitations of Cost Accounting, Difference between cost Accounting & Financial Accounting, CostUnit and cost centre. Elements of Cost, Preparation of cost sheet.	.....	
		Cost Accounting of Material, Labour and Overheads : Methods of pricing of material issues FIFO, LIFO, Simple Average, weighted Average. Methods of Wages- Time basis, Piece Basis, Labour Turn over(Theory) Classification, Allocation, Absorption and Apportionment of Overheads (Theory)	**Cost Accounting of Material, Labour and Overheads :** Methods of pricing of material issues FIFO, LIFO, Simple Average, weighted Average. Methods of Wages- Time basis, Piece Basis, Labour Turn over(Theory) Classification, Allocation, Absorption and Apportionment of Overheads (Theory)	.....	
		Methods of Costing - Process: Costing excluding calculation of Equivalent production, contract costing, service costing	**Methods of Costing - Process:** Costing excluding calculation of Equivalent production, contract costing, service costing	.....	

VIVEKANAND COLLEGE ESTD JUNE 1964 (Autonomous)

		(Transport Costing).	(Transport Costing).		
		Reconciliation of Cost and Financial Accounts: Reconciliation of Cost and Financial Accounts	**Reconciliation of Cost and Financial Accounts:** Reconciliation of Cost and Financial Accounts		

Signature of the Teacher)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Head of Department)

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- II[nd]**

Name of teacher- Mrs. Vaishali D. Patil **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A- I Sem-II	HRM	**Introduction to HRM :** Introduction , Concept, Definition, HRD, Functions of HRM , Organization of HR, Role HRM , Qualities of HR Manager, Limitations & challenges of HRM.	**Introduction to HRM :** Introduction , Concept, Definition, HRD, Functions of HRM , Organization of HR, Role HRM , Qualities of HR Manager, Limitations & challenges of HRM.	.....	
		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.	**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.	.....	
		Employee Separation Employee Separation practices in I.T. industry, Voluntary Retirement Schemes, Resignation-Discharge-Dismissal-Suspension-Layoff, Exit interview.	**Employee Separation** Employee Separation practices in I.T. industry, Voluntary Retirement Schemes, Resignation-Discharge-Dismissal-Suspension-Layoff, Exit interview.	.....	
		Compensation Management: Components of remuneration, factors effecting wage and salary levels, variable compensation, incentive schemes.	Compensation Management: Components of remuneration, factors effecting wage and salary levels, variable compensation, incentive schemes.	.....	
B.C.A II Sem-IV	Principles of Marketing	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 &	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 &	.....	
		A) Distribution Marketing Management : Introduction, Need for Marketing Channels, Decision involved in setting up the channels, Channel Management strategy B) Consumer Behaviour: Meaning & significance of consumer behaviour, factors affecting consumer behaviour.	A) Distribution Marketing Management : Introduction, Need for Marketing Channels, Decision involved in setting up the channels, Channel Management strategy B) Consumer Behaviour: Meaning & significance of consumer behaviour, factors affecting consumer behaviour.	.....	
		Environmental analysis and Marketing Mix: - Elements in Macro & Micro environment, Analysis of their impact on Marketing function of an organization Marketing	Environmental analysis and Marketing Mix: - Elements in Macro & Micro environment, Analysis of their impact on Marketing function of an organization Marketing	.....	

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

		Mix-meaning , definition, elements of marketing mix.	Mix-meaning , definition, elements of marketing mix.		
		A) Marketing of Services- Meaning, Characteristics of services, problems in services Marketing, Outsourcing of I.T. services. B)E- Marketing: Concept & techniques, significance of e-Marketing in 21st Century	A) Marketing of Services- Meaning, Characteristics of services, problems in services Marketing, Outsourcing of I.T. services. B)E- Marketing: Concept & techniques, significance of e-Marketing in 21st Century	.....	
BCA III Sem-VI	**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.	**Introduction to Strategic Management** Concept of Mission, Vision, Objectives, Concept of Strategy, Importance of Strategy, Levels of Strategy, Strategic Management Process – Different Phases.	.....	
		Environment Analysis Concept and Characteristics of environment, components of internal environment, SWOC, Components of external environment, PESTEL Framework – Porter's Five Forces	**Environment Analysis** Concept and Characteristics of environment, components of internal environment, SWOC, Components of external environment, PESTEL Framework – Porter's Five Forces	.....	
		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.	**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.	.....	
		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	**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	.....	

(Signature of the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)

STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- I[st]**

Name of teacher- Mrs. Megha Sagar Patil **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A I Sem-I	Fundamental of Computers	**Module I Introduction to computer**: Computer Characteristics, Concept of Hardware, Software , Evolution of computer and Generations, Types of computer – Analog & Digital computers, Hybrid computers, General purpose & Special Purpose Computer, Limitations of Computer, Applications of Computer in Various fields. Structure and Working of Computer: Functional Block diagram of computer. CPU, ALU, Memory Unit, Bus structure of Digital Computer - Address, data and control bus.	**Introduction to computer**: Computer Characteristics, Concept of Hardware, Software , Evolution of computer and Generations, Types of computer – Analog & Digital computers, Hybrid computers, General purpose & Special Purpose Computer, Limitations of Computer, Applications of Computer in Various fields. Structure and Working of Computer: Functional Block diagram of computer. CPU, ALU, Memory Unit, Bus structure of Digital Computer - Address, data and control bus.	.....	
		Module II Input /Output Devices: Input device – Keyboard, Mouse, Scanner, MICR, OMR. Output devices – VDU, Printers – Dot Matrix, Daisy-wheel, Inkjet, Laser, Line printers and Plotters. Computer Memory : Memory Concept , Memory cell, memory organization, Semiconductor memory- RAM, ROM, PROM,EPROM, Secondary Storage devices - Magnetic tape, Magnetic Disk (floppy disk & Hard disk.), Compact Disk.	**Module II Input /Output Devices**: Input device – Keyboard, Mouse, Scanner, MICR, OMR. Output devices – VDU, Printers – Dot Matrix, Daisy-wheel, Inkjet, Laser, Line printers and Plotters. Computer Memory : Memory Concept , Memory cell, memory organization, Semiconductor memory- RAM, ROM, PROM,EPROM, Secondary Storage devices - Magnetic tape, Magnetic Disk (floppy disk & Hard disk.), Compact Disk.	.....	
		Module III Computer Language and Software: Number System - Decimal, Binary, Octal & Hexadecimal, Conversion from One base to another base. Computer Codes - : BCD, EBCDIC, ASCII, Machine Language, Assembly language, High Level language, Assembler, Compiler, Interpreter. Characteristics of good Language. Software - System and application software	**Module III Computer Language and Software:** Number System - Decimal, Binary, Octal & Hexadecimal, Conversion from One base to another base. Computer Codes - : BCD, EBCDIC, ASCII, Machine Language, Assembly language, High Level language, Assembler, Compiler, Interpreter. Characteristics of good Language. Software - System and application software	.....	

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

		Module IV 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.	**Module IV 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.	.....	
B.C.A III Sem-V	**Networking**	**Module I Basics 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 1.2.3 Network Architecture-Client-Server and Peer to peer 1.3 Multiplexing and switching 1.3.1 Frequency-Division Multiplexing, Wavelength-Division Multiplexing, Time-Division Multiplexing 1.3.2 Circuit switching, Packet Switching, Message Switching	**Module I Basics 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 1.2.3 Network Architecture-Client-Server and Peer to peer 1.3 Multiplexing and switching 1.3.1 Frequency-Division Multiplexing, Wavelength-Division Multiplexing, Time-Division Multiplexing 1.3.2 Circuit switching, Packet Switching, Message Switching	.....	
		Module II 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 2.3.3 Comparison of OSI and TCP/IP reference model 2.4 Protocol Standards 2.5 IP address scheme and characteristics of IP	**Module II 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 2.3.3 Comparison of OSI and TCP/IP reference model 2.4 Protocol Standards 2.5 IP address scheme and characteristics of IP	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		address	address		
		Module III Data link, Network and Transport layer 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	**Module III Data link, Network and Transport layer** 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	.....	
		Module IV Session, Presentation and Application layer 12 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 4.2.2 Cryptography: concept, symmetric key & asymmetric key cryptography 4.3 Application layer: 4.3.1 Function4.3.2 Domain name system (DNS),Hypertext Transfer Protocol (HTTP),Simple Mail Transfer Protocol (SMTP) ,Telnet, File Transfer Protocol (FTP)	**Module IV Session, Presentation and Application layer 12** 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 4.2.2 Cryptography: concept, symmetric key & asymmetric key cryptography 4.3 Application layer: 4.3.1 Function4.3.2 Domain name system (DNS),Hypertext Transfer Protocol (HTTP),Simple Mail Transfer Protocol (SMTP) ,Telnet, File Transfer Protocol (FTP)	.....	

(Signature of the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- II[nd]**

Name of teacher- Mrs. Megha Sagar Patil **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A- I Sem-II	**DBMS**	**Module I 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.	**Module I 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.	.....	
		Module II 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 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 2.5.1 Files of Unordered Records (Heap Files)	**Module II 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 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 2.5.1 Files of Unordered Records (Heap Files)	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		2.5.2 File of Ordered Records (Sorted Files) 2.5.3 Hash Files 2.5.4 Indexed file	2.5.2 File of Ordered Records (Sorted Files) 2.5.3 Hash Files 2.5.4 Indexed file		
		Module III 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. 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 3.6. Relational Database Design 3.6.1 Introduction 3.6.2Normalization 3.6.3 Normal Form 3.6.1 1 NF 3.6.2 2 NF 3.6.3 3 NF	**Module III 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. 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 3.6. Relational Database Design 3.6.1 Introduction 3.6.2Normalization 3.6.3 Normal Form 3.6.1 1 NF 3.6.2 2 NF 3.6.3 3 NF	.....	
		Module IV Relational algebra 4.1 Introduction 4.2 Operations a. Select b. Project	**Module IV Relational algebra** 4.1 Introduction 4.2 Operations a. Select b. Project	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		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 4.3.9 Clauses	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 4.3.9 Clauses		
B.C.A III Sem-VI	**DWDM**	**Module I 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	**Module I 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	.....	
		Module II Data Mining techniques 2.1 Frequent item - set and association rule mining: apriori algorithm, use of sampling for frequent item- set tree algorithm 2.2 graph sampling : frequent sub graph mining . tree mining ,sequence mining 2.3 **Classification and prediction:** 2.3.1 Decision tree [3 hrs]	**Module II Data Mining techniques** 2.1 Frequent item - set and association rule mining: apriori algorithm, use of sampling for frequent item- set tree algorithm 2.2 graph sampling : frequent sub graph mining . tree mining ,sequence mining 2.3 **Classification and prediction:** 2.3.1 Decision tree [3 hrs]	.....	

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

		2.3.2 Construction, performance, attribute selection 2.3.3 Issues : Over fitting tree pruning methods, missing values, continuous classes 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	2.3.2 Construction, performance, attribute selection 2.3.3 Issues : Over fitting tree pruning methods, missing values, continuous classes 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		
		Module III Clustering 3.1 K-means 3.2 expectation maximization (EM) algorithm 3.3 Hierarchical clustering , Carrolton clustering	**Module III Clustering** 3.1 K-means 3.2 expectation maximization (EM) algorithm 3.3 Hierarchical clustering , Carrolton clustering	.....	
		Module IV Software for Data mining and application of Data mining 10 4.1 R 4.2 Weka 4.3 Sample applications of data mining	**Module IV Software for Data mining and application of Data mining 10** 4.1 R 4.2 Weka 4.3 Sample applications of data mining	.....	

(Signature of the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- I**

Name of teacher- Mr. Raju Shivaji Sawant Department- BCA

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A III Sem-V	Visual Programming	**Module: 1** **Introduction** 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	**Module: 1** **Introduction** 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		
		Module: 2 **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	**Module:2** **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		

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		Module:3 **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 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 3.8 WEB.config, globalization and localization, AppDomain	**Module:3** **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 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 3.8 WEB.config, globalization and localization, AppDomain		
		Module:4 **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	**Module:4** **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		

(Signature of the Head of Department)

DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE ESTD JUNE 1964 (Autonomous)

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- II**

Name of teacher- Mr. Raju Shivaji Sawant **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A- I Sem-II	**Basics of Web Technology**	**Module I** **Introduction:** Introduction to internet and its applications, E-mail, telnet, FTP, E-commerce, video conferencing, e-business. Internet service providers, domain name server, internet address, World Wide Web, uniform resource locator (URL), browsers – internet explorer, Netscape navigator etc. search engine, web saver – Apache, proxy server, HTTP protocols.	**Module I** **Introduction:** Introduction to internet and its applications, E-mail, telnet, FTP, E-commerce, video conferencing, e-business. Internet service providers, domain name server, internet address, World Wide Web, uniform resource locator (URL), browsers – internet explorer, Netscape navigator etc. search engine, web saver – Apache, proxy server, HTTP protocols	.....	
		Module II **HTML-5** What is HTML-5 , Basic Tags, Structure, Layout, Web Development Process Overview of HTML Tags, Formatting Tags, Headings(H1-H6), Tags and Attributes, Paragraph Tag, FONT Tag, List Tags, Ordered and Unordered Tags, Hyperlink, <HR><Marquee> Tags, Image <img> Tag with all attributes, Image and Image map. <TABLE>..</TABLE> tag with all attributes .<FORM> tag, Examples and case studies based on all tags.	**Module II** **HTML-5** What is HTML-5 , Basic Tags, Structure, Layout, Web Development Process Overview of HTML Tags, Formatting Tags, Headings(H1-H6), Tags and Attributes, Paragraph Tag, FONT Tag, List Tags, Ordered and Unordered Tags, Hyperlink, <HR><Marquee> Tags, Image <img> Tag with all attributes, Image and Image map. <TABLE>..</TABLE> tag with all attributes .<FORM> tag, Examples and case studies based on all tags	.....	

VIVEKANAND COLLEGE ESTD JUNE 1964 KOLHAPUR (Autonomous)

		Module III **Basic of CSS** Introduction to CSS, CSS Basics, Syntax / Rule of CSS, Selectors, properties and values, Applying CSS to HTML tags, Types: Internal, Inline, External CSS, CSS Colors, Background and color, CSS Box Model, CSS Margins, Padding, Borders CSS Text and Font Properties	**Module III** **Basic of CSS** Introduction to CSS, CSS Basics, Syntax / Rule of CSS, Selectors, properties and values, Applying CSS to HTML tags, Types: Internal, Inline, External CSS,CSS Colors, Background and color, CSS Box Model, CSS Margins, Padding, Borders CSS Text and Font Properties	.....	
		Module IV **CSS – Page Layout** Classes IDs DIVs Spans, The Box, Styling Page Divisions, Paragraph Formatting. Nav Bars: Adding a Navigation Bar, Customizing a Navigation Bar. Case Study: Select any topic of your interest and Design Project using above technologies which suit for Desktop and Laptop computer screen only.	**Module IV** **CSS – Page Layout** Classes IDs DIVs Spans, The Box, Styling Page Divisions, Paragraph Formatting. Nav Bars: Adding a Navigation Bar, Customizing a Navigation Bar. Case Study: Select any topic of your interest and Design Project using above technologies which suit for Desktop and Laptop computer screen only.	.....	
B.C.A- I Sem-II	**Operating System**	**Module-I : Introduction of Operating System** Definition, Objectives, Functions, Generations of OS, Types of OS (Batch, Multiprogramming, Time Sharing, Real time, Distributed, Personal, Mobile). OS Structure (Monolithic, Layered, Microkernel, Exokernel, Client-Server).	**Module-I : Introduction of Operating System** Definition, Objectives, Functions, Generations of OS, Types of OS (Batch, Multiprogramming, Time Sharing, Real time, Distributed, Personal, Mobile). OS Structure (Monolithic, Layered, Microkernel, Exokernel, Client-Server).		
		Module II : Process Management Process Management- Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.	**Module II : Process Management** Process Management- Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.		
		Module III: Memory Management Memory Management- Introduction to memory management, Requirements (Relocation, Protection, Sharing, Logical organization, Physical organization). Memory partitioning-Fixed partitioning, Dynamic partitioning, Paging, Segmentation. Concept of Virtual memory.	**Module III: Memory Management** Memory Management- Introduction to memory management, Requirements (Relocation, Protection, Sharing, Logical organization, Physical organization). Memory partitioning-Fixed partitioning, Dynamic partitioning, Paging, Segmentation. Concept of Virtual memory.		

VIVEKANAND COLLEGE ESTD JUNE 1964 (Autonomous)

		Module – IV File System Files & File system, File structure, File types, File access, File attributes, Basic file operations. Directories- Single-level & Hierarchical directory systems, Path names & Directory operations. Differentiate between Windows and Linux OS.	**Module – IV File System** Files & File system, File structure, File types, File access, File attributes, Basic file operations. Directories- Single-level & Hierarchical directory systems, Path names & Directory operations. Differentiate between Windows and Linux OS.		
B.C.A II Sem-IV	**RDBMS Using ORACLE**	**Module I** **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.	**Module I** **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.	.....	
		Module II **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.	**Module II** **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.	.....	

VIVEKANAND COLLEGE ESTD JUNE 1964 (Autonomous)

		Module III **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 III** **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 IV **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.	**Module IV** **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.	.....	

VIVEKANAND COLLEGE ESTD JUNE 1964 (Autonomous)

(Signatureof the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLKATA
(AUTONOMOUS)

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR(AUTONOMOUS)
STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- II[nd]**

Name of teacher- Mr. RajuShivajiSawant **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A-III Sem-VI	**Java Programming**	**Module IIntroduction 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	**Module IIntroduction 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	.....	
		Module II 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	**Module II 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.	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		Module III 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 Files.	**Module III 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	.....	
		Module IV 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)	**Module IV 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)	.....	
B.C.A II Sem-IV	**Web Technology**	**Module I : Internet and WWW :** 1.1 Network, Client, Server, 1.2 What is Internet & Applications, WWW 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	**Module I : Internet and WWW :** 1.1 Network, Client, Server, 1.2 What is Internet & Applications, WWW 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	.....	
		Module II HTML tags : 3.1 Heading and paragraph tags, font tag. <table> tag 3.2 List Tags-ordered and unordered list tags: , <HR>.,<Marquee>	**Module II HTML tags :** 3.1 Heading and paragraph tags, font tag. <table> tag 3.2 List Tags-ordered and unordered list tags: , <HR>.,<Marquee>	.....	

VIVEKANAND COLLEGE KOLHAPUR
ESTD JUNE 1964
(Autonomous)

		3.3 : Hyperlink, <A> Image and Image maps, <form> tag, form controls to design UI	3.3 : Hyperlink, <A> Image and Image maps, <form> tag, form controls to design UI		
		Module IIIJAVA SCRIPT : 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, 4.4 Dialogue boxes, Built-in functions and Validations	**Module III JAVA SCRIPT :** 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, 4.4 Dialogue boxes, Built-in functions and Validations	.....	
		Module IV Introduction to Server-Side scripting 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 4.3.8 Aggregate Functions 4.3.9 Clauses	**Module Introduction to Server-Side scripting** 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 4.3.8 Aggregate Functions 4.3.9 Clauses	.....	

(Signatureof the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR(AUTONOMOUS)

STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- I**

Name of teacher- Mrs. Kishori Abhijeet Sawardekar (Budhale) Department- BCA

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A I Sem-I	Programming in C (part-I)	**Module I** **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.)	**Module I** **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.)	.....	
		Module II **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 unctions.	**Module II** **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.	.....	
		Module III **Control Structures:** Conditional statements: if, If-else nested if-else, switch statement. Loops: while, for, do...While loop, Unconditional statements: Break, continue, exit, goto statements.	**Module III** **Control Structures:** Conditional statements: if, If-else nested if-else, switch statement. Loops: while, for, do...While loop, Unconditional statements: Break, continue, exit, goto statements.	.....	
		Module IV **Arrays and Strings:** Arrays- Meaning and definition, Declaration, Initialization and types	**Module IV** **Arrays and Strings:** Arrays- Meaning and definition, Declaration, Initialization and types	.....	

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

		of arrays (single and multidimensional arrays). Strings: Meaning and definition, Declaration, Initialization String functions strlen(), strrev(), strlwr(), strupr(), strcat(), strcmp() , strcpy(). Handling of character array.OS.	of arrays (single and multidimensional arrays). Strings: Meaning and definition, Declaration, Initialization String functions strlen(), strrev(), strlwr(), strupr(), strcat(), strcmp() , strcpy(). Handling of character array.		
B.C.A II Sem-III	**Software Engineering**	**Module I** **Introduction:** Software Engineering approach, Need of engineering aspect for Software Design, SDLC, Software Crisis, Software Process, Process models (Classical Waterfall Model, Build-n- Fix Model, Iterative Waterfall Model, Prototyping Model, Evolutionary Model and Spiral Model)	**Module -I** **Introduction:** Software Engineering approach, Need of engineering aspect for Software Design, SDLC, Software Crisis, Software Process, Process models (Classical Waterfall Model, Build-n- Fix Model, Iterative Waterfall Model, Prototyping Model, Evolutionary Model and Spiral Model)	.....	
		Module II **Software Requirement Analysis and Specifications:** Software Requirement Specifications, Need of SRS, Steps for constructing good SRS, Behavioral and Non-Behavioral requirements, Analysis Model	**Module II** **Software Requirement Analysis and Specifications:** Software Requirement Specifications, Need of SRS, Steps for constructing good SRS, Behavioral and Non-Behavioral requirements, Analysis Model	.....	
		Module III **Software Design:** Design Concepts & Principle, problem partitioning, abstraction, and top down and bottom up-design, Cohesion & Coupling, How to measure degree of Cohesion and Coupling, Function Oriented Design, DFDs, Structure Chart, Object Oriented Design.	**Module III** **Software Design:** Design Concepts & Principle, problem partitioning, abstraction, and top down and bottom up-design, Cohesion & Coupling, How to measure degree of Cohesion and Coupling, Function Oriented Design, DFDs, Structure Chart, Object Oriented Design.	.....	
		Module IV **Software Testing:** Validation and Verification, Black Box testing approach, White Box testing approach, Levels of testing: Unit Testing, Integration Testing, Validation testing, System testing and debugging. Software Maintenance: Software Maintenance Process and its types.	**Module IV** **Software Testing:** Validation and Verification, Black Box testing approach, White Box testing approach, Levels of testing: Unit Testing, Integration Testing, Validation testing, System testing and debugging. Software Maintenance: Software Maintenance Process and its types.	.....	

HEAD
DEPARTMENT OF B.C.A.
VIVEKANAND COLLEGE, KOLKATA
(AUTONOMOUS)

(Signature of the Head of Department)

VIVEKANANDA COLLEGE ESTD JUNE 1964 (Autonomous)

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR(AUTONOMOUS)

STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- II**

Name of teacher- Mrs. Kishori Abhijeet Sawardekar (Budhale) **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabu not to Covere
B.C.A I Sem-II	Programming in C (part-II)	**Module I** **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.	**Module I** **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.	.....
		Module IIPointers: 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().	**Module II 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().	.....
		Module III 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.	**Module III 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.	.....
		Module IV 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().	**Module IV 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().	.....
B.C.A I Sem-II	Operating System	**Module I** **Introduction of Operating System-** Definition, Objectives, Functions, Generations of OS, Types of OS (Batch, Multiprogramming, Time Sharing,	**Module I** **Introduction of Operating System-** Definition, Objectives, Functions, Generations of OS, Types of OS (Batch, Multiprogramming, Time	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		Real time, Distributed, Personal, Mobile). OS Structure (Monolithic, Layered, Microkernel, Exokernel, Client-Server).	Sharing, Real time, Distributed, Personal, Mobile). OS Structure (Monolithic, Layered, Microkernel, Exokernel, Client-Server).	
		Module II Process Management – Process Management- Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.	**Module II Process Management –** Process Management- Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.	
		Module III Memory Management- Memory Management- Introduction to memory management, Requirements (Relocation, Protection, Sharing, Logical organization, Physical organization). Memory partitioning- Fixed partitioning, Dynamic partitioning, Paging, Segmentation. Concept of Virtual memory.	**Module III Memory Management-** Memory Management- Introduction to memory management, Requirements (Relocation, Protection, Sharing, Logical organization, Physical organization). Memory partitioning- Fixed partitioning, Dynamic partitioning, Paging, Segmentation. Concept of Virtual memory.	
		Module IV File System- Files & File system, File structure, File types, File access, File attributes, Basic file operations. Directories- Single-level & Hierarchical directory systems, Path names & Directory operations. Differentiate between Windows and Linux OS.	**Module IV File System-** Files & File system, File structure, File types, File access, File attributes, Basic file operations. Directories- Single-level & Hierarchical directory systems, Path names & Directory operations. Differentiate between Windows and Linux OS.	
B.C.A II Sem IV	**Advance Web Technology**	**Module I** **HTML Forms :-** Overview of HTML5 and Revisions on FORMS ,CSS,InsertingImage,Creatingwebsites,Hyperlinks,<DIV> tag	**Module I** **HTML Forms:-** Overview of HTML5 and Revisions on FORMS ,CSS,InsertingImage,Creatingwebsites,Hyperlinks,<DIV> tag	
		Module II **Java Script:** Overview, Client-Side JavaScript, Advantages of JavaScript, Limitations of JavaScript, Syntax:- First JavaScript Code, Internal File, External File, Java Script Variables:- Data types, Variables, Operators:- Reserve words ,Control statements, Loops, Function:- Function Definition.	**Module II** **Java Script :**Overview, Client-Side JavaScript, Advantages of JavaScript, Limitations of JavaScript, Syntax:- First JavaScript Code, Internal File, External File, Java Script Variables:- Data types, Variables, Operators:- Reserve words ,Control statements, Loops, Function:- Function Definition.	
		Module III **Eevnts in JavaScript &DOM:** What is an Event?, onclick Event Type, onsubmit Event Type, onmouseover and onmouseout, Standard Events, Dialog Box:- Alert Dialog Box, Confirmation Dialog Box, Prompt Dialog Box, JAVA Script Objects:- Object Properties, Object Methods, User Defined Objects, Defining Methods for an Object DOM	**Module III** **Eevnts in JavaScript &DOM:** What is an Event?, onclick Event Type, onsubmit Event Type, onmouseover and onmouseout, Standard Events, Dialog Box:- Alert Dialog Box, Confirmation Dialog Box, Prompt Dialog Box, JAVA Script Objects:- Object Properties, Object Methods, User	

		(Document Object Model), Array, String, Form Validation:- Basic Form Validation.	Defined Objects, Defining Methods for an Object DOM (Document Object Model), Array, String, Form Validation:- Basic Form Validation.	
		Module IV **Introduction to PHP:** History, WebServer, WAMP server, Basic Programming Concepts of PHP : Syntax, Operators, Variables, Constants, Control statement loops ,Language construct and functions, Function –Syntax, Arguments, Variables, References, Returns and Variable Scope.	**Module IV** **Introduction to PHP:** History, WebServer, WAMP server, Basic Programming Concepts of PHP : Syntax, Operators, Variables, Constants, Control statement loops ,Language construct and functions, Function –Syntax, Arguments, Variables, References, Returns and Variable Scope.	

(Signature of the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR(AUTONOMOUS)

STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- I**

Name of teacher- Miss Renuka.S.Satpute **Department- BCA**

Subject :Principles of management

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A I Sem-I	Principles of 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**.	**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**.	.....	
		Planning, Organizing and Staffing: Planning: Meaning, Definition & Nature, Steps in Planning Organizing: Meaning, Definition & Classification. (Formal & Informal organization, Virtual organization.), **Staffing: Meaning Definition & Functions.**	**Planning, Organizing and Staffing:** Planning: Meaning, Definition & Nature, Steps in Planning Organizing: Meaning, Definition & Classification. (Formal & Informal organization, Virtual organization.), **Staffing: Meaning Definition & Functions.**	.....	
		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**	**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**	.....	
		Controlling and Trends in Management Management Information System: Meaning, Definition & Types of Information	**Controlling and Trends in Management** Management Information System: Meaning, Definition & Types of Information Management of Change: Meaning Definition & Forms or Types of Changes, Corporate	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		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.**	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.**		
Class	**Subject**	**Syllabus assigned**	**Syllabus Covered**	**Syllabus not to Covered**	**Remark**
B.C.A II Sem-V	**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, Transaction Capabilities; 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.**	**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, Transaction Capabilities; 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.**	.....	
		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	**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,	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		instant payment system, Electronic funds transfer, Concept of e-banking.	Electronic funds transfer, Concept of e-banking.		
		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.	**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.	.....	
		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.	**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.	.....	

(Signature of the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR
ESTD
JUNE
1964
(Autonomous)

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR(AUTONOMOUS)

STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- II**

Name of teacher- Miss Renuka. S. Satpute **Department- BCA**

Subject :E-Commerce

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A II Sem-IV	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, Transaction Capabilities; 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.**	**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, Transaction Capabilities; 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.**	.....	
		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.	**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.	.....	
		E-Security Concept of E-security, Security threats- concept and types, Malicious code, Phishing and identity theft,	**E-Security** Concept of E-security, Security threats- concept and types, Malicious code, Phishing and identity theft,	.....	

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

		Hacking and cyber vandalism, Credit card fraud/Theft, Spoofing, Denial of service (DoS), Firewall and proxy server.	Hacking and cyber vandalism, Credit card fraud/Theft, Spoofing, Denial of service (DoS), Firewall and proxy server.		
		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.	**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.	.....	
B.C.A I Sem-II	**Human Resource Management**	**Introduction to HRM :** Introduction , Concept, Definition, HRD, Functions of HRM , Organization of HR, Role HRM , Qualities of HR Manager, Limitations & challenges of HRM.	**Introduction to HRM :** Introduction , Concept, Definition, HRD, Functions of HRM , Organization of HR, Role HRM , Qualities of HR Manager, Limitations & challenges of HRM.		
		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.	**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.		
		Employee Separation Employee Separation practices in I.T. industry, Voluntary Retirement Schemes, Resignation-Discharge-Dismissal-Suspension-Layoff, Exit interview.	**Employee Separation** Employee Separation practices in I.T. industry, Voluntary Retirement Schemes, Resignation-Discharge-Dismissal-Suspension-Layoff, Exit interview.		
		Compensation Management: Components of remuneration, factors effecting wage and salary levels, variable compensation, incentive schemes.	**Compensation Management**: Components of remuneration, factors effecting wage and salary levels, variable compensation, incentive schemes.		

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

(Signatureof the Head of Department)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- II[nd]**

Name of teacher- Mr. Sumedrao Manikrao Gaikwad **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A- I Sem-II	**Basics of Web Technology**	**Module I** **Introduction:** Introduction to internet and its applications, E-mail, telnet, FTP, E-commerce, video conferencing, e-business. Internet service providers, domain name server, internet address, World Wide Web, uniform resource locator (URL), browsers – internet explorer, Netscape navigator etc. search engine, web saver – Apache, proxy server, HTTP protocols.	**Module I** **Introduction:** Introduction to internet and its applications, E-mail, telnet, FTP, E-commerce, video conferencing, e-business. Internet service providers, domain name server, internet address, World Wide Web, uniform resource locator (URL), browsers – internet explorer, Netscape navigator etc. search engine, web saver – Apache, proxy server, HTTP protocols	.....	
		Module II **HTML-5** What is HTML-5 , Basic Tags, Structure, Layout, Web Development Process Overview of HTML Tags, Formatting Tags, Headings(H1-H6), Tags and Attributes, Paragraph Tag, FONT Tag, List Tags, Ordered and Unordered Tags, Hyperlink, <HR><Marquee> Tags, Image <img> Tag with all attributes, Image and Image map. <TABLE>..</TABLE> tag with all attributes .<FORM> tag, Examples and case studies based on all tags.	**Module II** **HTML-5** What is HTML-5 , Basic Tags, Structure, Layout, Web Development Process Overview of HTML Tags, Formatting Tags, Headings(H1-H6), Tags and Attributes, Paragraph Tag, FONT Tag, List Tags, Ordered and Unordered Tags, Hyperlink, <HR><Marquee> Tags, Image <img> Tag with all attributes, Image and Image map. <TABLE>..</TABLE> tag with all attributes .<FORM> tag, Examples and case studies based on all tags	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		Module III **Basic of CSS** Introduction to CSS, CSS Basics, Syntax / Rule of CSS, Selectors, properties and values, Applying CSS to HTML tags, Types: Internal, Inline, External CSS, CSS Colors, Background and color, CSS Box Model, CSS Margins, Padding, Borders CSS Text and Font Properties	**Module III** **Basic of CSS** Introduction to CSS, CSS Basics, Syntax / Rule of CSS, Selectors, properties and values, Applying CSS to HTML tags, Types: Internal, Inline, External CSS,CSS Colors, Background and color, CSS Box Model, CSS Margins, Padding, Borders CSS Text and Font Properties	.....	
		Module IV **CSS – Page Layout** Classes IDs DIVs Spans, The Box, Styling Page Divisions, Paragraph Formatting. Nav Bars: Adding a Navigation Bar, Customizing a Navigation Bar. Case Study: Select any topic of your interest and Design Project using above technologies which suit for Desktop and Laptop computer screen only.	**Module IV** **CSS – Page Layout** Classes IDs DIVs Spans, The Box, Styling Page Divisions, Paragraph Formatting. Nav Bars: Adding a Navigation Bar, Customizing a Navigation Bar. Case Study: Select any topic of your interest and Design Project using above technologies which suit for Desktop and Laptop computer screen only.	.....	
B.C.A- I Sem-II	**Operating System**	**Module-I : Introduction of Operating System** Definition, Objectives, Functions, Generations of OS, Types of OS (Batch, Multiprogramming, Time Sharing, Real time, Distributed, Personal, Mobile). OS Structure (Monolithic, Layered, Microkernel, Exokernel, Client-Server).	**Module-I : Introduction of Operating System** Definition, Objectives, Functions, Generations of OS, Types of OS (Batch, Multiprogramming, Time Sharing, Real time, Distributed, Personal, Mobile). OS Structure (Monolithic, Layered, Microkernel, Exokernel, Client-Server).		
		Module II : Process Management Process Management- Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.	**Module II : Process Management** Process Management- Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.		
		Module III: Memory Management Memory Management- Introduction to memory management, Requirements (Relocation, Protection, Sharing, Logical organization, Physical organization). Memory partitioning-Fixed partitioning, Dynamic partitioning, Paging, Segmentation. Concept of Virtual memory.	**Module III: Memory Management** Memory Management- Introduction to memory management, Requirements (Relocation, Protection, Sharing, Logical organization, Physical organization). Memory partitioning-Fixed partitioning, Dynamic partitioning, Paging, Segmentation. Concept of Virtual memory.		

VIVEKANAND COLLEGE KOLHAPUR
ESTD JUNE 1964
(Autonomous)

		Module – IV File System Files & File system, File structure, File types, File access, File attributes, Basic file operations. Directories- Single-level & Hierarchical directory systems, Path names & Directory operations. Differentiate between Windows and Linux OS.	**Module – IV File System** Files & File system, File structure, File types, File access, File attributes, Basic file operations. Directories- Single-level & Hierarchical directory systems, Path names & Directory operations. Differentiate between Windows and Linux OS.		
B.C.A II Sem-IV	**Data Structure Using C++**	**Module I** **Introduction to data structures** Introduction to Array, Introduction to Data Structures, Concept of Abstract Data types, Array as ADT, Data structures and its types, Data structures operations	**Module I Introduction to data structures** Introduction to Array, Introduction to Data Structures, Concept of Abstract Data types, Array as ADT, Data structures and its types, Data structures operations	.....	
		Module II **Searching and Sorting and Methods** Introduction to Searching and Sorting, Searching: Linear search, Binary search and hashing, Sorting: Bubble Sort, Insertion sort, Selection sort, Merge sort,	**Module II** **Searching and Sorting and Methods** Introduction to Searching and Sorting, Searching: Linear search, Binary search and hashing, Sorting: Bubble Sort, Insertion sort, Selection sort, Merge sort,	.....	
		Module III **Stacks and Queues** Introduction to stack, Primitive Stack operations: Push & Pop, Array and Linked Implementation of Stack in C++, Application of stack: Prefix and Postfix Expressions Evaluation, Definition of queue, Operations on queue, Types of queue-Linear, Circular, Applications of queue	**Module III** **Stacks and Queues** Introduction to stack, Primitive Stack operations: Push & Pop, Array and Linked Implementation of Stack in C++, Application of stack: Prefix and Postfix Expressions Evaluation, Definition of queue, Operations on queue, Types of queue-Linear, Circular, Applications of queue	.....	
		Module IV **Linked Lists and Trees** Introduction to Pointer, Introduction to linked lists, Implementation of Linked list,	**Module IV** **Linked Lists and Trees** Introduction to Pointer, Introduction to linked lists, Implementation of Linked list,	.....	

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		Types of Linked List: Singly, Doubly and Circular, Operations on linear linked list: Traversal, Insertion, Deletion, Searching Trees: definition, terminologies, representation, types, Tree Traversal- (Preorder, Inorder, Postorder)	Types of Linked List: Singly, Doubly and Circular, Operations on linear linked list: Traversal, Insertion, Deletion, Searching Trees: definition, terminologies, representation, types, Tree Traversal- (Preorder, Inorder, Postorder)		

(Signatureof the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Teacher)

VIVEKANAND COLLEGE, KOLHAPUR(AUTONOMOUS)

STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- I**

Name of teacher-Miss. Shivani Subhhash Kagale **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabus not to Covered	Remark
B.C.A I Sem-I	Programming in C (part-I)	**Module I** **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.)	**Module I** **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.)	.....	
		Module II **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 unctions.	**Module II** **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.	.....	
		Module III **Control Structures:** Conditional statements: if, If-else nested if-else, switch statement. Loops: while, for, do...While loop, Unconditional statements: Break, continue, exit, goto statements.	**Module III** **Control Structures:** Conditional statements: if, If-else nested if-else, switch statement. Loops: while, for, do...While loop, Unconditional statements: Break, continue, exit, goto statements.	.....	
		Module IV **Arrays and Strings:** Arrays- Meaning and definition, Declaration, Initialization and types	**Module IV** **Arrays and Strings:** Arrays- Meaning and definition, Declaration, Initialization and types	.....	

VIVEKANAND COLLEGE (Autonomous) ESTD JUNE 1964

		of arrays (single and multidimensional arrays). Strings: Meaning and definition, Declaration, Initialization String functions strlen(), strrev(), strlwr(), strupr(), strcat(), strcmp() , strcpy(). Handling of character array.OS.	of arrays (single and multidimensional arrays). Strings: Meaning and definition, Declaration, Initialization String functions strlen(), strrev(), strlwr(), strupr(), strcat(), strcmp() , strcpy(). Handling of character array.		
B.C.A I Sem-I	**Fundamental of Computers**	**Module I Introduction to computer**: Computer Characteristics, Concept of Hardware, Software , Evolution of computer and Generations, Types of computer – Analog & Digital computers, Hybrid computers, General purpose & Special Purpose Computer, Limitations of Computer, Applications of Computer in Various fields. Structure and Working of Computer: Functional Block diagram of computer. CPU, ALU, Memory Unit, Bus structure of Digital Computer - Address, data and control bus.	**Introduction to computer**: Computer Characteristics, Concept of Hardware, Software , Evolution of computer and Generations, Types of computer – Analog & Digital computers, Hybrid computers, General purpose & Special Purpose Computer, Limitations of Computer, Applications of Computer in Various fields. Structure and Working of Computer: Functional Block diagram of computer. CPU, ALU, Memory Unit, Bus structure of Digital Computer - Address, data and control bus.	.....	
		Module II Input /Output Devices: Input device – Keyboard, Mouse, Scanner, MICR, OMR. Output devices – VDU, Printers – Dot Matrix, Daisy-wheel, Inkjet, Laser, Line printers and Plotters. Computer Memory : Memory Concept , Memory cell, memory organization, Semiconductor memory- RAM, ROM, PROM,EPROM, Secondary Storage devices - Magnetic tape, Magnetic Disk (floppy disk & Hard disk.), Compact Disk.	**Module II Input /Output Devices**: Input device – Keyboard, Mouse, Scanner, MICR, OMR. Output devices – VDU, Printers – Dot Matrix, Daisy-wheel, Inkjet, Laser, Line printers and Plotters. Computer Memory : Memory Concept , Memory cell, memory organization, Semiconductor memory- RAM, ROM, PROM,EPROM, Secondary Storage devices - Magnetic tape, Magnetic Disk (floppy disk & Hard disk.), Compact Disk.	.....	
		Module III Computer Language and Software: Number System - Decimal, Binary, Octal & Hexadecimal, Conversion from One base to another base. Computer Codes - : BCD, EBCDIC, ASCII, Machine Language, Assembly language, High Level language, Assembler, Compiler, Interpreter. Characteristics of good Language. Software - System and application software	**Module III Computer Language and Software:** Number System - Decimal, Binary, Octal & Hexadecimal, Conversion from One base to another base. Computer Codes - : BCD, EBCDIC, ASCII, Machine Language, Assembly language, High Level language, Assembler, Compiler, Interpreter. Characteristics of good Language. Software - System and application software	.....	
		Module IV Operating System: Operating system, Evolution of operating system. Function	**Module IV Operating System:** Operating system, Evolution of operating system.	.....	

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

		of operating system. Types of operating systems. Detailed study of Windows Operating System. Introduction and Features of LINUX OS.	Function of operating system. Types of operating systems. Detailed study of Windows Operating System. Introduction and Features of LINUX OS.		

(Signature of the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

(Signature of the Teacher)

VIVEKANAND COLLEGE K...
ESTD
JUNE
1964
(Autonomous)

VIVEKANAND COLLEGE, KOLHAPUR(AUTONOMOUS)

STATEMENT OF SYLLABUS COVERED

Year- 2022-23 **Term- II**

Name of teacher- Miss.Shivani Subhash K **Department- BCA**

Class	Subject	Syllabus assigned	Syllabus Covered	Syllabu not to Covere
B.C.A I Sem-II	Programming in C (part-II)	**Module I** **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.	**Module I** **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.	.....
		Module IIPointers: 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().	**Module II 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().	.....
		Module III 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.	**Module III 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.	.....
		Module IV 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().	**Module IV 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().	.....
B.C.A I Sem-II	Operating System	**Module I** **Introduction of Operating System-** Definition, Objectives, Functions, Generations of OS,	**Module I** **Introduction of Operating System-** Definition, Objectives, Functions, Generations of OS,	.....

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		Types of OS (Batch, Multiprogramming, Time Sharing, Real time, Distributed, Personal, Mobile). OS Structure (Monolithic, Layered, Microkernel, Exokernel, Client-Server).	Types of OS (Batch, Multiprogramming, Time Sharing, Real time, Distributed, Personal, Mobile). OS Structure (Monolithic, Layered, Microkernel, Exokernel, Client-Server).	
		Module II Process Management – Process Management- Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.	**Module II Process Management –** Process Management- Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.	.....
		Module III Memory Management- Memory Management- Introduction to memory management, Requirements (Relocation, Protection, Sharing, Logical organization, Physical organization). Memory partitioning- Fixed partitioning, Dynamic partitioning, Paging, Segmentation. Concept of Virtual memory.	**Module III Memory Management-** Memory Management- Introduction to memory management, Requirements (Relocation, Protection, Sharing, Logical organization, Physical organization). Memory partitioning- Fixed partitioning, Dynamic partitioning, Paging, Segmentation. Concept of Virtual memory.	.....
		Module IV File System- Files & File system, File structure, File types, File access, File attributes, Basic file operations. Directories- Single-level & Hierarchical directory systems, Path names & Directory operations. Differentiate between Windows and Linux OS.	**Module IV File System-** Files & File system, File structure, File types, File access, File attributes, Basic file operations. Directories- Single-level & Hierarchical directory systems, Path names & Directory operations. Differentiate between Windows and Linux OS.	.....
B.C.A II Sem IV	**Advance Web Technology**	**Module I** **HTML Forms :-** Overview of HTML5 and Revisions on FORMS ,CSS,InsertingImage,Creatingwebsites,Hyperlinks,<DIV> tag	**Module I** **HTML Forms:-** Overview of HTML5 and Revisions on FORMS ,CSS,InsertingImage,Creatingwebsites,Hyperlinks,<DIV> tag	.....
		Module II **Java Script:** Overview, Client-Side JavaScript, Advantages of JavaScript, Limitations of JavaScript, Syntax:- First JavaScript Code, Internal File, External File, Java Script Variables:- Data types, Variables, Operators:- Reserve words ,Control statements, Loops, Function:- Function Definition.	**Module II** **Java Script :**Overview, Client-Side JavaScript, Advantages of JavaScript, Limitations of JavaScript, Syntax:- First JavaScript Code, Internal File, External File, Java Script Variables:- Data types, Variables, Operators:- Reserve words ,Control statements, Loops, Function:- Function Definition.	.....
		Module III **Eevnts in JavaScript &DOM:** What is an Event?, onclick Event Type, onsubmit Event Type, onmouseover and onmouseout, Standard Events, Dialog Box:- Alert Dialog	**Module III** **Eevnts in JavaScript &DOM:** What is an Event?, onclick Event Type, onsubmit Event Type, onmouseover and onmouseout, Standard Events, Dialog Box:- Alert	.....

ESTD JUNE 1964 (Autonomous)

		Box, Confirmation Dialog Box, Prompt Dialog Box, JAVA Script Objects:- Object Properties, Object Methods, User Defined Objects, Defining Methods for an Object DOM (Document Object Model), Array, String, Form Validation:- Basic Form Validation.	Dialog Box, Confirmation Dialog Box, Prompt Dialog Box, JAVA Script Objects:- Object Properties, Object Methods, User Defined Objects, Defining Methods for an Object DOM (Document Object Model), Array, String, Form Validation:- Basic Form Validation.	
		Module IV **Introduction to PHP:** History, WebServer, WAMP server, Basic Programming Concepts of PHP : Syntax, Operators, Variables, Constants, Control statement loops ,Language construct and functions, Function –Syntax, Arguments, Variables, References, Returns and Variable Scope.	**Module IV** **Introduction to PHP:** History, WebServer, WAMP server, Basic Programming Concepts of PHP : Syntax, Operators, Variables, Constants, Control statement loops ,Language construct and functions, Function –Syntax, Arguments, Variables, References, Returns and Variable Scope.	.....
B.C.A - I Sem-II	**DBMS**	**Module I 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.	**Module I 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.	.....
		Module II 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 2.3.3 Reading and Writing	**Module II 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 2.3.3 Reading and Writing	.....

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Autonomous)

		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 2.5.1 Files of Unordered Records (Heap Files) 2.5.2 File of Ordered Records (Sorted Files) 2.5.3 Hash Files 2.5.4 Indexed file	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 2.5.1 Files of Unordered Records (Heap Files) 2.5.2 File of Ordered Records (Sorted Files) 2.5.3 Hash Files 2.5.4 Indexed file	
		Module III 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. 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 3.6. Relational Database Design 3.6.1 Introduction 3.6.2Normalization 3.6.3 Normal Form 3.6.1 1 NF 3.6.2 2 NF 3.6.3 3 NF	**Module III 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. 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 3.6. Relational Database Design 3.6.1 Introduction 3.6.2Normalization 3.6.3 Normal Form 3.6.1 1 NF 3.6.2 2 NF 3.6.3 3 NF	....

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

		Module IV Relational algebra 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 4.3.9 Clauses	**Module IV Relational algebra** 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 4.3.9 Clauses	

(Signature of the Head of Department)

HEAD
DEPARTMENT OF B. C. A.
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

(Signature of the Teacher)