Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE (AUTONOMOUS), KOLHAPUR

DEPARTMENT OF BCA

Syllabus for the F.Y.B.C.A.

SYLLABUS OF COURSE TO BE OFFERED

Core Courses, Elective Courses & Ability Enhancement Courses

Credit Based Semester and Grading System with effect from the academic year 2021–2022

Structure of Syllabus
BCA-I

Sem-I							
Sr.No.		Title of Paper	Course Code	Credit	CIE	CA	Total
1	CC	Fundamentals of Computer	BCA-1433-A	4	30	70	100
2	CC	Programming Using C Part-I	BCA-1434-A	4	30	70	100
3	CC	Principles of Management	BCA-1435-A	4	30	70	100
4	CC	Financial Accounting with Tally	BCA-1436-A	4	30	70	100
5	AECC	Business Communication	BCA-1437-A	4	30	70	100
6	CCL	Lab Course-I Based on Fundamental of Computers	BCA-1438-A	2	-	50	50
7	CCL	Lab course-II Based on C Programming	BCA-1439-A	2	-	50	50
8	CCC	Compulsory Civic Course (CCC)		-	-	-	-
				24	150	450	600

BCA-I

Sem-II							
Sr. No.		Title of Paper	Course Code	Credit	CIE	CA	Total
1	CC	Basics Web Technology	BCA-1440-B	4	30	70	100
2	CC	Programming Using C Part-II	BCA-1441-B	4	30	70	100
3	CC	Operating System	BCA-1442-B	4	30	70	100
4	CC	Database Management System	BCA-1443-B	4	30	70	100
5	CC	Human Resource Management	BCA-1444-B	4	30	70	100
6	CCL	Lab Course-III Based on Web Technology + DBMS	BCA-1445-B	2	-	50	50
7	CCL	Lab course-IV Based on C Programming	BCA-1446-B	2	-	50	50
				24	150	450	600

Vivekanand College, Kolhapur (Autonomous)

B.C. A. Part – I (Semester I)
For the Academic year 2021-2022

Course Code: BCA-1433A	Course Name: Fundamental of Computer	Credits: 04	Marks : 100
Course Objective	1. To know the basic of Computer. 2. To provide knowledge of Basics of Operating systems.		
Course Outcomes	After completion of this course students will be able to – 1. Describe peripheral devices and number systems. 2. Understand operating environment. 3. Demonstrate the use of Linux Operating system commands.		
Module	**Descriptions**		**Teaching Hrs.**
I	**Introduction to Computers**: Introduction to computer, Characteristics of Computers, Block diagram of computer, History of computers, Generations of computer, Applications of computer, Types of computers and features : Mini, micro, mainframe and super, Types of Programming Languages : Machine Languages, Assembly Languages and High Level Languages.		**15**
II	**Peripheral Devices and Number Systems:** Types of Memory (Primary And Secondary) : RAM, ROM, Secondary Storage Devices (FD, CD, HD, Pen drive) , I/O Devices, Number Systems : Binary, Octal and Hexadecimal, Conversion from one base to another,		**15**
III	**Introduction to Software & Operating Environment**: Introduction to software, Types of software: System, Application and utilities. Introduction to operating system, Types of O.S. , Functions of O.S., Files and Directories , Batch Files Windows Operating Environment, Features of Windows, Control Panel, Taskbar, Desktop, Windows Application, Icons, Windows Accessories : Notepad and Paintbrush		**15**
IV	**Linux**: Introduction Linux, Features, **Structure of Linux, File system, Linux Commands , Permission and Inodes, I/O redirection, Pipes ,VI Editor .**		**15**
	Books Recommended: 1. Computer fundamentals by Rajaraman 2. Computer fundamentals by P.K.Sinha and Priti sinha 3. Computer fundamentals, architecture and organization by B. Ram 4. Computer Today – Basandara 5. Computer Fundamentals 1st Edition 2017 by RS Salaria, Khanna Publishing House. 6. Fundamentals Of Computers, by E Balagurusamy.		

B.C. A. Part – I (Semester I)
For the Academic year 2021-2022

Course Code: BCA-1434A	Course Name: Programming in C part-I	Credits: 04	Marks : 100
Course Objective	1) To provide problem solving techniques. 2) To gain the basic terms used in C programming. 3) To know program writing skills		
Course Outcomes	After the successful completion of the course the students are able to, 1. Understand the problem solving techniques. 2. Develop algorithm and flowcharts for different problems. 3. Design programs using control statements. 4. Handle multi dimensional array.		

Module	Descriptions	Teaching Hrs.
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.)	15
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.	15
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.	15
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.	15
	Books Recommended: 1. The C programming Language by Ritchie and Kernighan. 2. Let us C by Y.C. Kanetkar 3. Introduction to programming using C by Prof.D.R.Patil, Pawar, Shinde and Lad(Dreamtech). 4. Programming in C by D Ravichandran. 5. C Programming by Venugopal. 6. Programming in C – E. Balagurusamy 7. Pointers in C – Yashwant Kanetkar	

Course Code: BCA1435A	Course Name: Principles of Management	Credits: 04	Marks : 100
Course Objective	1. To gain understanding of the function and responsibility of managers. 2. To provide them tools and techniques to be used in the performance of the managerial job.		
Course Outcomes	After completion of this course students will be able to - 1. Understand the influence of historical forces on current practice of management. 2. Utilize frameworks in the functions of management. 3. Understand leadership styles to anticipate the consequences of each leadership style 4. Identify and apply appropriate management techniques for organizations; and understand social responsibility involved in business situations.		

Module	Descriptions	Teaching Hrs.
I	**Introduction to Management:** Definition of Management, nature and importance of management, Functions of Management, Levels of management, Role of Manager in Organization, Contribution of F.W. Taylor, Henry Fayol and Max Weber, **Peter Drucker to management theory**.	**15**
II	**Planning Organizing and staffing:** Planning: Meaning, Definition & Nature, Advantages and limitation, Steps and types of planning **Organizing**: Meaning, Definition & Importance, principles of Organization. Formal and Informal Organization (Formal & Informal organization, Virtual organization.), **Staffing: Meaning Definition, Process, Aspect of staffing, Recrutment and Selection, Methods of Traning and the devlopment**	**15**
III	**Directing Motivation and leadersheep :** **Directing-** Introduction, Meaning, Importance, Principle of directing, **Leadership**: Meaning & Definition, Theories of Leadership, Qualities of Leadership & Types of Leaders **Motivation**: Meaning, definition & importance of motivation, Theories of motivation –Maslow's Hierarchy Theory, Herzberg's theory & Theory X & Y. **Communication- Types, Problems**	**15**
IV	**Controlling and Trends in Management** Management Information System: Meaning, Definition & Types of Information Management of Change: Meaning Definition & Forms or Types of Changes, Corporate Social Responsibilities. Controlling :- Meaning, Importance, Steps in Control Process, Types of control- Feed forward control, Concurrent control & feedback control, Techniques of control. **Recent trend in Management, Contemporary issues in management.**	**15**
	Books Recommended: 1. Principles of Management : T. Ramasamy 2. Management Concepts and Practices : Dr. Manmohan Prasad 3. Principles of Management- P. Subba Rao 4. Management –L.M.Prasad 5. Essential of Management by Kncotz & O' Donnel,	

Course Code: BCA1436A	**Course Name: Financial Accounting with Tally**	**Credits: 04**	**Marks : 100**
Course Objective	1. To Study the process of financial accounting. 2. To helps students to work with well known accounting software i.e. Tally. 3. To create company, enter accounting voucher entries including advance voucher entries,		
Course Outcomes	After completion of this course students will be able to - i. Use basic accounting terminology, procedures and systems of maintaining accounting records. ii. Understand financial statements. iii. Learn to create company, enter accounting voucher entries and also print financial statements etc. in tally. iv. Demonstrate various reports in tally.		
Module	**Descriptions**		**Teaching Hrs.**
I	**Introduction to Financial Accounting** Meaning and Definition of Financial Accounting, Objectives of Accounting, Various users of Accounting Information, Accounting Terminologies, Accounting Concepts and Conventions, Double entry system, Types of Accounts and Golden rules of accounting.		15
II	**Journal and Ledger** Journal, subsidiary Books, Cash Book, Ledger Posting		15
III	**Preparation of Financial Statements** Trial Balance – Meaning, Definition, purpose and features, preparation of Trial Balance. Final Accounts – Introduction, Objectives of Final Accounts, Adjustments before Preparing Final Accounts, Preparation of Trading Account, Profit and Loss Account, Balance Sheet.		15
IV	**Introduction to Tally and Reporting** Tally History and Journey, Difference between manual accounting v/s computerized accounting, Tally features, Tally Fundamentals - Company Data – Gateway of Tally, Creating and Maintaining a Company, Loading a Company, F11: Company Features, F12: Configuration. Voucher Entry, Inventory - Stock Groups, Stock Categories, Stock Items, Units of Measurement, Bills of Materials, Batches & Expiry Dates. **Reports -**Profit and loss account, Balance sheet, Profit and Loss A/C, Balance Sheet, Interest Calculations, Statutory Master, CST Reports, Inventory report, Day Book, Use of Reports in Bussiness.		15
	Books Recommended: 1. Advance Accountancy: M.C. Shukla & T.S. Grewal 2. Advance Accountancy: S.C. Jain & K.L. Narang 3. Advance Accountancy: S.M. Shukla 4. Advance Accountancy: Maheshwari 5. Advance Accountancy: R.L.Gupta		

BCA-I (SEM-I)
Lab Course I (Based on Fundamental of Computers)
Course Code- BCA-1438A
For the Academic year 2021-2022

Credits: 2	List of Practical's:
Sr. No.	**Description**
1	Create an E-mail account, Retrieving messages from inbox, replying, attaching files filtering and forwarding
2	Preparing a Govt. Order / Official Letter / Business Letter / Circular Letter Covering formatting commands - font size and styles - bold, underline, upper case, lower case, superscript, subscript, indenting paragraphs, spacing between lines and characters, tab settings etc.
3	Preparing a newsletter: To prepare a newsletter with borders, two columns text, header and footer and inserting a graphic image and page layout.
4	Creating and using styles and templates To create a style and apply that style in a document To create a template for the styles created and assemble the styles for the template.
5	Creating and editing the table To create a table using table menu To create a monthly calendar using cell editing operations like inserting, joining, deleting, splitting and merging cells To create a simple statement for math calculations viz. Totaling the column.
6	Creating numbered lists and bulleted lists To create numbered list with different formats (with numbers, alphabets, roman letters) To create a bulleted list with different bullet characters.
7	Printing envelopes and mail merge. To print envelopes with from addresses and to addresses To use mail merge facility for sending a circular letter to many persons To use mail merge facility for printing mailing labels.
8	Using the special features of word To find and replace the text To spell check and correct. To generate table of contents for a document To prepare index for a document
9	Creating a Presentation with Slide Transition – Automatic and Manual with different effects.
10	Creating a Presentation applying Custom Animation effects – Applying multiple effects to the same object and changing to a different effect and removing effects.

BCA-I (SEM-I)
Lab Course II (Based on Programming in C part-I)
Course Code- BCA-1439A
For the Academic year 2021-2022

Credits:2	List of Practical's:
Sr. No.	**Description**
1	Write a program to get number from user and display its square and cube.
2	Write a program to calculate the mean/Average of given 2 or 3 or 5 numbers
3	Write a program to display whether a given number is even or odd.
4	Write a program to find greater number from given two/three number.
5	Write a program to calculate factorial of given number.
6	Write a program to calculate sum of digits of a given number.
7	Write a program to reverse the given number and find whether it is palindrome or not.
8	Write a program to find whether a given number is prime number or not.
9	Write a program of Matrix Arithmetic's
10	Write a program to find given number is Armstrong or not.

Note: All practical's are done through gcc.

Vivekanand College, Kolhapur (Autonomous)

B.C. A. Part – I (Semester II)
For the Academic year 2021-2022

Course Code: BCA-1440B	Course Name: Basics of Web Technology	Credits: 04	Marks : 100
Course Objective	To provide knowledge of Web designing techniques.		
Course Outcomes	After completion of this course students will be able to - 1) Understand the basic working of Internet and its main services. 2) Create web pages using HTML. 3) Applying CSS styles in web page development. 4) Utilize theoretical skills and practical experience of web design.		

Module	Descriptions	Teaching Hrs.
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.	15
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.	15
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	15
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.	15
	Books Recommended: 1. Internet 6-in-1 by Kraynak and Habraken, Prentice Hall of India Pvt. Ltd., New Delhi 2. Internet for Everyone by Alexis Leon and Mathews Leon; Vikas Publishing House Pvt. Ltd., New Delhi. 3. Josh Hill, HTML5 and CSS3 in Simple Steps, 2011, Pearson. 4. Joel Sklar, Principle of Web Design, 2014, 5th Edition, Cengage Learning. 5. Alexis Goldstein, Louis Lazaris, Estelle Way, HTML5 and CSS3 for the Real World, 2015, SitePoint	

Vivekanand College, Kolhapur (Autonomous)
B.C. A. Part – I (Semester II)
For the Academic year 2021-2022

Course Code: BCA-1441B	Course Name: Programming in C Part –II	Credits: 04	Marks : 100
Course Objective	1. To provide knowledge of user defined function. 2. To gain skills of program writing using advance C concepts.		
Course Outcomes	After completion of this course students will be able to - 1. Understand the different techniques used in C programming. 2. Write programs using advance C concepts.		

Module	Descriptions	Teaching Hrs.
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.	15
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().**	15
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**.	15
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().	15
	Books Recommended: 1. Internet 6-in-1 by Kraynak and Habraken, Prentice Hall of India Pvt. Ltd., New Delhi 2. Internet for Everyone by Alexis Leon and Mathews Leon; Vikas Publishing House Pvt. Ltd., New Delhi. 3. Josh Hill, HTML5 and CSS3 in Simple Steps, 2011, Pearson. 4. Joel Sklar, Principle of Web Design, 2014, 5th Edition, Cengage Learning. 5. Rference Books 1. Alexis Goldstein, Louis Lazaris, Estelle Way, HTML5 and CSS3 for the Real World, 2015, SitePoint	

Vivekanand College, Kolhapur (Autonomous)
B.C. A. Part – I (Semester II)
For the Academic year 2021-2022

Course Code: BCA-1442B	Course Name: Operating System		Credits: 04	Marks : 100
Course Objectives	1. To make the students familiar with the basics of operating system. 2. To explain the structure and functions of an operating system			
Course Outcomes	After completion of this course students will be able to - 1. Possess knowledge of Operating Systems and their types. 2. Apply the concept of a process and scheduling algorithms. 3. Realize the concept of deadlock and different ways to handle it. 4. Understand various memory management techniques and file system.			
Module	**Descriptions**			**Teaching Hrs.**
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).			15
II	**Process Management –** Process Management- Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.			15
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.			15
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.			15
	Books Recommended: A. Modern Operating Systems, Andrew S Tanenbaum, 3rd Edition, PHI, 2010. B. Operating Systems, Achyut S Godbole, 2nd Edition, McGraw Hill Publications. C. Operating Systems a Concept Based Approach by Dhananjay Dhamdhere D. Operating System Principles by Silberschatz , Galvin , Gagne. E. Operating System Concepts by Abraham Silberschatz, Peter B. Galvin, Greg Gagne			

Course Code: BCA-1442B	Course Name: Database Management System	Credits: 04	Marks : 100
Course Objectives	After completion of this course students will be able to – 1. To know the fundamentals of Data Management System. 2. To understand how to use data base in day to day applications.		
Course Outcomes	After completion of this course students will be able to - 1. To analyze the difference between traditional file system and DBMS 2. Acquire knowledge in fundamentals of Database Management System		

Module	Descriptions	Teaching Hrs.

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.
		15

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)
	2.5.2 File of Ordered Records (Sorted Files)
	2.5.3 Hash Files
	2.5.4 Indexed file
		15

III	**Data Models**	15
	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	
	3.6.2 Normalization	
	3.6.3 Normal Form	
	3.6.1. 1 NF, 3.6.2 2 NF, 3.6.3 3 NF	
IV	**Relational algebra**	15
	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	
	Books Recommended:	
	1) Database System Concepts By Henry korth and A. Silberschatz	
	2) An Introduction to Database System by Bipin Desai	
	3) File Structure by Michael J. Folk, Greg, Riccardi	
	4) Teach Yourself SQL in 14 days by Jeff Parkins and Bryan Morgan	
	5) Database Management System by Raghu Ramakrishnan	
	6) An Introduction to Database System by Bipin Desai	

Vivekanand College, Kolhapur (Autonomous)
B.C. A. Part – I (Semester II)
For the Academic year 2021-2022

Course Code: BCA-1444B	Course Name: Human Resource Management		Credits: 04	Marks : 100
Course Objectives	After completion of this course students will be able to – 1. To provide knowledge of concepts of human resource management within the organization 2. To know the proper recruitment and selection procedure in organization			
Course Outcomes	After completion of this course students will be able to – 1. Students should understand the concept of Human Resource Management within the organization. 2. To know the proper Recruitment and Selection Procedure in organization.			

Module	Descriptions	Teaching Hrs.
I	**Introduction to HRM :** Introduction , Concept, Functions of HRM , Organization of HR, Role HRM , Qualities of HR Manager, challenges and recent trends of HRM in I.T.	15
II	**Human resource Planning & Development :** Meaning and need of HRP, Objectives of HRP, Process of HRP in I.T. Industry, Factors affecting HRP , Job Analysis , Job Description, Recruitment and Selection procedures in I.T. Industry. Training and Development methods followed in I.T. Industry.	15
III	**Employee Separation** Introduction, Concept and Objectives of Employee Separation, Employee Separation practices in I.T. industry, Voluntary Retirement Schemes, Resignation-Discharge-Dismissal-Suspension, Exit interview.	15
IV	**Compensation Management: Introduction, Concept and Objectives, Components of remuneration, factors effecting wage and salary levels, variable compensation, incentive schemes.**	15
	Books Recommended: 1. Human resource management by Ian Breadsevace. 2. Human resource management by S. S. Khankar. 3. Human resource management by Biswajeet Patanayak. 4. Human Resource Management 6E, By Aswathappa 5. Human Resource Management By Gary Dessler 6. The HR Scorecard By Brian Becker, Mark Huselid, Dave Ulrich	

Lab Course III (Based on DBMS and Web Technology)
Course Code- BCA-1445B
For the Academic year 2021-2022

Credits:2	List of Practical's of DBMS
Sr. No.	**Description**
1	Create tables for the information given below by giving appropriate integrity constraints as specified.
2	Create table for the information given below by choosing appropriate data types and integrity constraints as specified.
3	1. Create the following tables (primary keys are underlined.). Property(pno,description, area) Owner(oname,address,phone) An owner can have one or more properties, but a property belongs to exactly one owner . Create the relations accordingly, so that the relationship is handled properly and the relations are in normalized form (3NF). a) Insert two records into owner table. b) insert 2 property records for each owner . c) Update phone no of "Mr. Nene" to 9890278008 d) Delete all properties from "pune" owned by " Mr. Joshi"
4	To understand & get a Hands-on on Select statement
5	To understand & get a Hands-on on using set operations (union ,intersect and except) with select statement.
6	Create the following relations, for an investment firm emp(emp-id ,emp-name, address, bdate) Investor(inv-name , inv-no, inv-date, inv-amt) An employee may invest in one or more investments; hence he can be an investor. But an investor need not be an employee of the firm. Create the Relations accordingly, so that the relationship is handled properly and the relations are in normalized form (3NF). Assume appropriate data types for the attributes. Add any new attributes, as required by the queries. Insert sufficient number of records in the relations / tables with appropriate values as suggested by some of the queries. Write the following queries & execute them. 1. List the distinct names of customers who are either employees, or investors or both. 2. List the names of customers who are either employees, or investors or both. 3. List the names of employees who are also investors. 4. List the names of employees who are not investors.
7	To understand & get a Hands-on on nested queries & subqueries, that involves joining of tables.
8	To understand & get a Hands-on on nested queries & subqueries, that involves joining of tables, to demonstrate set cardinality.
9	Assignment related to small case studies (Each case study will involve creating tables with specified constraints, inserting records to it & writing queries for extracting records from these tables)
10	Assignment related to small case studies (Each case study will involve creating tables with specified constraints, inserting records to it & writing queries for extracting records from these tables)
Note: All practical's are done through My SQL	
Practical of Advance Web Technology	
1	Create HTML page to add basic tags :
2	Create home page to use header, formatting tag

3	Write an HTML code to illustrate the usage of the following: • Ordered List • Unordered List • Definition List.
4	Write HTML page to add image and 2 paragraph
5	Create Table FIFA World Cup as year and place
6	Use <a href> tag and Div tag and design page
7	Write an HTML code to demonstrate the usage of inline CSS. C3
8	Write an HTML code to demonstrate the usage of internal CSS.
9	Write an HTML code to demonstrate the usage of external CSS.
10	Design a simple website using Header, Menu bar, content, footer on any topic Home page having three links: About Us, Our Services and Contact Us.

Lab Course IV (Based on Programming in C part-II)
Course Code- BCA-1446B
For the Academic year 2021-2022

Credits:2	List of Practical's:
Sr. No.	Description
1	Write the programs to understand categories of function. (Minimum three programs)
2	Write a program to demonstrate actual arguments and formal arguments.
3	Write a program to demonstrate storage classes.
4	Write a program to calculate mean two numbers which are given at command line.
5	Write a programs based on Pointer
6	Write a program which swap two number using a) call by value and b) call by reference.
7	Write programs based on Structure..
8	Write a program based on union.
9	Write a program to copy content of one file into another file.
10	Write a file handling program which accept student information store it into disk file using binary mode.

Note: All practicals are done through gcc.

QUESTION PAPER PATTERN FOR ALL SEMESTERS

Duration: 3 Hours   Total Marks – 70

Instructions: **1) Que.1 and Que.8 are compulsory.**
                           2) Attempts any three Questions from Que. No.2 to Que. No. 7.
                           3) Figures to the right indicate marks.

Qu.1) Five MCQ / Short answer Questions / Match the Pairs   05
Qu.2) Broad answer question   14
Qu.3) Broad answer question   14
Qu.4) Broad answer question   14
Qu.5) Broad answer question   14
Qu.6) Broad answer question   14
Qu.7) Broad answer question   14
Qu.8) Write notes on (Any three out of five)   09

Note: Que.2 to Que.7 may contain sub-questions (A) & (B) carrying 7 marks each.

Internal Marks Distribution:

1.   Ten Marks for Tests. (Two test of 10 Marks would be conducted and convert these marks to Ten marks.)
2.   Ten Marks for designing apps or software or working model/ Field Work/online learning activity or Home Assignment etc.
3.   Five Marks for Oral.
4.   Five Marks for Department activity participation and Attendance.(75% to 80%- 02 marks, 81% to 85 %- 03 marks, 86% to 90%- 04, marks 91% to 100% - 5 mark)