DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY
Chhatrapati Sambhajinagar.

CIRCULAR /SU/CM/Revised Syllabus/NEP/113/2024

It is hereby inform to all concerned that, in continuation Circular No/SU/CM/NEP-UG/50/2023/-18935-44 Date:13-12-2023 has prepard by the Board of Studies & on the recommendation of the Dean, Faculty of Commerce & Management; **the Academic Council at its meeting held on 08.04.2024 has accepted the *"following Revised Structure with syllabus of Hons with Research degree Programme"* as per direction by the state goverment letter dated on 13 March 2024 and Norms of National Education Policy-2020** under the Faculty of Commerce & Management **run at the Affiliated Colleges,** Dr. Babasaheb Ambedkar Marathwada University as per appended herewith.

Sr.No.	Courses	Semester
1	B.Com. E-Commerce	I to II
2	BCA	I to II
3	BBA	I to II

This is retrospective effect from the Academic Year 2024-25 and Onwards as per appended herewith.

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.
REF.NO. SU/COM/2024-25/321-30

Date:- 06-06-2024.

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Deputy Registrar,
Academic Section
Syllabus unit.

Copy forwarded with compliments to :-

1] The Principal all concerned affiliated colleges,
Dr. Babasaheb Ambedkar Marathwada University.
2] The Director, University Network & Information Centre, UNIC, with **a request to upload this Circular on University Website.**

Copy to :-

1] The Director, Board of Examination & Evaluation,
2] The Section Officer, [B.Com. Unit] Examination Branch,
3] The Section officer, [Eligibility Unit],
4] The Programmer [Computer Unit-1] Examinations,
5] The Programmer [Computer Unit-2] Examinations,
6] The In-charge, [E-Suvidha Kendra], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr. Babasaheb Ambekar Marathwada University.
7] The Public Relation Officer,
8] The Record Keeper.

Dr. Babasaheb Ambedkar Marathwada University

Chhatrapati Sambhajinagar - 431001

Three Years B.C.A.,

Four Years B.C.A. (Honours)

And

Four Years B.C.A. (Honours with Research)

Degree Program in Affiliated Colleges to

Dr. Babasaheb Ambedkar Marathwada University

Under Faculty of Commerce & Management

Course Structure

(Revised)

(AS PER NEP-2020)

Subject: Computer Applications/ Commerce/ Management Science

Effective from 2024-25

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar
Faculty of Commerce & Management
Curriculum Structure
Bachelor of Computer Applications (BCA) Honours
Academic Year 2024-2025
Semester -I

Course Type		Course Code	Course Tile	Total Lectures (Teaching Lectures /week)	Credits	Scheme of Examination			
						Max Marks	UA	IA	Min Marks
DSC : Discipline Specific Core									
Major-1 (M1)	DSC-1 & 2	BCA101T	Fundamentals of Computer	02 hrs/per week	02	50	30	20	20
		BCA102P	Fundamentals of Computer-Lab	04 hrs/per week	02	50	30	20	20
Major-2 (M2)	DSC-1 & 2	BCA103T	Principles of Management	04 hrs/per week	04	100	60	40	40
Major-3 (M3)	DSC-1 & 2	BCA104T	Accountancy-I	04 hrs/per week	04	100	60	40	40
GE/OE : Generic/Open Elective (Choose any one for other Faculty Students)									
Generic/ Open Elective (Choose any one)	GE /OE-1	BCA105T	A] Operating System	02 hrs/per week	02	50	30	20	20
			B] Computer Hardware	02 hrs/per week					
SEC : Skill Enhancement Course (Choose any one)									
SEC : Skill Enhancement Course (Choose any one)	SEC-1	BCA106P	A] M. S. Office	01 hrs/per week	02	50	30	20	20
			B] M. S. Office- Lab	01 hrs/per week					
	SEC-2		A] Web Development using HTML	02 hrs/per week					
			B] Web Development using HTML - Lab	02 hrs/per week					
AEC, VEC, IKS : (Common for all Faculty)									
AEC, VEC, IKS	AEC - 1	BCA107T	English (Common for all the faculty)	02 hrs/per week	02	50	30	20	20
	IKS-1	BCA108T	To offered by University	02 hrs/per week	02	50	30	20	20
OJT/ FP/CEP/CC/RP									
OJT/ FP/CEP/ CC/RP	CC-1	BCA109P	Health & Wellness (Common for all the faculty)	02 hrs/per week	02	50	30	20	20
					22	**550**			

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Faculty of Commerce & Management
Curriculum Structure
Bachelor of Computer Applications (BCA) Honours
Academic Year 2024-2025
Semester –II

Course Type		Course Code	Course Tile	Total Lectures (Teaching Lectures /week)	Cre-dits	Scheme of Examination			
						Max Marks	UA	IA	Min Marks
DSC : Discipline Specific Core									
Major-1 (M1)	**DSC -3 & 4**	BCA201T	Programming in C	02 hrs/per week	02	50	30	20	20
		BCA202P	Programming in C-Lab	04 hrs/per week	02	50	30	20	20
Major-2 (M2)	**DSC -3 & 4**	BCA203T	Business Statistics	04 hrs/per week	04	100	60	40	40
Major-3 (M3)	**DSC -3 & 4**	BCA204T	Accountancy-II	04 hrs/per week	04	100	60	40	40
GE/OE : Generic/Open Elective (Choose any one for other Faculty Students)									
Generic/ Open Elective (Choose any one)	**GE/ OE-2**	BCA205T	A] Personal Finance & Planning	02 hrs/per week	02	50	30	20	20
			B] DSS & MIS	02 hrs/per week					
VSE : Vocational Skill Courses (Choose any one)									
VSC : Vocational Skill Courses (Choose any one)	**VSC-1**	BCA206P	A] E-Business B] E-Business Lab	01 hrs/per week 02 hrs/per week	02	50	30	20	20
	VSC-2		A] Data Structure using C B] Data Structure using C -Lab	01 hrs/per week 02 hrs/per week					
AEC , VEC , IKS : (Common for all Faculty)									
AEC, VEC, IKS	**AEC-2**	BCA207T	Modern English Language-I (Common for all the faculty)	02 hrs/per week	02	50	30	20	20
	VEC-1	BCA208T	Constitution of India (Common for all the faculty)	02 hrs/per week	02	50	30	20	20
OJT/ FP/CEP/CC/RP									
OJT/ FP/CEP/CC/RP	**CC-2**	BCA209P	Yoga Education / Sports and Fitness (Common for all the faculty)	02 hrs/per week	02	50	30	20	20
					22	**550**			

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Faculty of Commerce & Management
Curriculum Structure
Bachelor of Computer Applications (BCA) Honours
Academic Year 2024-2025
Semester -III

Course Type		Course Code	Course Tile	Total Lectures (Teaching Lectures /week)	Credits	Scheme of Examination			
						Max Marks	UA	IA	Min Mark
DSC : Discipline Specific Core									
Major-(Core) Mandatory	DSC -5	BCA301T	DBMS	02 hrs/per week	02	50	30	20	20
	DSC -6	BCA302T	OPPS Using C++	02 hrs/per week	02	50	30	20	20
	DSC -7	BCA303P	DBMS Lab	04 hrs/per week	02	50	30	20	20
	DSC -8	BCA304P	OPPS Using C++ -Lab	04 hrs/per week	02	50	30	20	20
Minor (Choose any one from each pool of course) It is from different discipline of the same faculty									
Minor	MN-1	BCA305T	A] Entrepreneurship Development	02 hrs/per week	02	50	30	20	20
			A] MIS & DSS	02 hrs/per week					
	MN-2	BCA306T	B] Functional Management	02 hrs/per week	02	50	30	20	20
			B] Mathematics	02 hrs/per week					
GE/OE : Generic/Open Elective (Choose any one for other Faculty Students)									
Generic/ Open Elective (Choose any one)	GE /OE-3	BCA307T	**A]** Advance Web Development Technology	02 hrs/per week	02	50	30	20	20
			B] Digital Electronics	02 hrs/per week					
				02 hrs/per week					
		VSC : Vocational Skill Courses (Choose any one)							
WVSC : Vocational Skill Courses (Choose any one)	VSC-3	BCA308P	**A]** Business Law	01 hrs/per week	02	50	30	20	20
			B] Business Law-Lab	02 hrs/per week					
	VSC -4		A] Advance Web Technology	01 hrs/per week					
			B] Advance Web Tech -Lab	02 hrs/per week					
AEC , VEC , IKS : (Common for all Faculty)									
AEC, VEC, IKS	AEC-3	BCA309T	English (Common for all the faculty)	02 hrs/per week	02	50	30	20	20
OJT/ FP/CEP/CC/RP									
OJT/ FP/CEP/CC/RP	FP	BCA310P	Field Project	04 hrs/per week	02	50	30	20	20
	CC-3	BCA311P	Cultural Activity / NSS, NCC (Common for all the faculty)	04 hrs/per week	02	50	30	20	20
					22	**550**			

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Academic Year 2024-2025
Semester –IV

Course Type		Course Code	Course Tile	Total Lectures (Teaching Lectures /week)	Credits	Scheme of Examination			
						Max Marks	UA	IA	Min Marks
DSC : Discipline Specific Core									
Major-(Core) Mandatory	**DSC – 9**	BCA401T	Java Programming	02 hrs/per week	02	50	30	20	20
	DSC - 10	BCA402P	Java Programming – Lab	04 hrs/per week	02	50	30	20	20
	DSC – 11 & 12	BCA403T	Cost Accountancy	04 hrs/per week	04	100	60	40	40
Minor (Choose any one from each pool of course) It is from different discipline of the same faculty									
Minor	**MN-3**	BCA404T	A] Business Communication	02 hrs/per week	02	50	30	20	20
			B] Life Skills	02 hrs/per week					
	MN-4	BCA405T	A] Quantitative Aptitude	02 hrs/per week	02	50	30	20	20
			B] Event Management	02 hrs/per week					
GE/OE : Generic/Open Elective (Choose any one for other Faculty Students)									
Generic/ Open Elective (Choose any one)	**GE /OE-4**	BCA406T	**A]** Advanced Networking	02 hrs/per week	02	50	30	20	20
			B] Linux	02 hrs/per week					
				02 hrs/per week					
SEC : Skill Enhance Courses (Choose any one)									
SEC : Skill Enhance Courses	**SEC-3**	BCA407P	**A]** RDBMS Using oracle **B)** RDBMS Using oracle Lab	01 hrs/per week 02 hrs/per week	02	50	30	20	20
	SEC-4		**A]** Web Services using XML **B)** Web Services using XML Lab	01 hrs/per week 02 hrs/per week					
AEC , VEC , IKS : (Common for all Faculty)									
AEC, VEC, IKS	**AEC-4**	BCA408T	Modern Indian Language (MIL-2) (Common for all the faculty)	02 hrs/per week	02	50	30	20	20
OJT/ FP/CEP/CC/RP									
OJT/ FP/CEP/CC/RP	**CEP-1**	BCA409P	Community engagement and Service	04 hrs/per week	02	50	30	20	20
	CC-4	BCA410P	(Fine/ Applied/ Visual/ Performing Arts) (Common for all the faculty)	04 hrs/per week	02	50	30	20	20
					22	**550**			

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Faculty of Commerce & Management
Curriculum Structure
Bachelor of Computer Applications (BCA) Honours
Academic Year 2024-2025

Semester –V

Course Type		Course Code	Course Tile	Total Lectures (Teaching Lectures /week)	Cre-dits	Scheme of Examination			
						Max Marks	UA	IA	Min Marks
DSC : Discipline Specific Core									
Major-(Core) Mandatory	DSC -13	BCA501T	Basic of Android	02 hrs/per week	02	50	30	20	20
	DSC -14	BCA502P	Basic of Android Lab	04 hrs/per week	02	50	30	20	20
	DSC -15 & 16	BCA503T	Management Accounting	04 hrs/per week	04	100	60	40	40
DSE: Discipline Specific Elective (Choose any one from each pool of course)									
DSE: Discipline Specific Elective	DSE -1	BCA504T	A] Sensors Technology	02 hrs/per week	02	50	30	20	20
			B] Software Engineering	02 hrs/per week					
	DSE -2	BCA505P	A] Sensors Technology -Lab	04 hrs/per week	02	50	30	20	20
			B] Software Engineering - Lab	04 hrs/per week					
Minor (Choose any one from each pool of course) It is from different discipline of the same faculty									
Minor	MN-5	BCA506T	A] Digital Marketing	02 hrs/per week	02	50	30	20	20
			B] Fundamentals of Insurance	02 hrs/per week					
	MN-6	BCA507T	A] Fundamentals of Banking	02 hrs/per week	02	50	30	20	20
			B] E-Commerce	02 hrs/per week					
VSC : Vocational Skill Courses (Choose any one from each pool of course)									
VSC : Vocational Skill Courses (Choose any one)	VSC-5	BCA508T	**A]** ASP.NET	02 hrs/per week	02	50	30	20	20
			B] Web Development using PHP	02 hrs/per week					
	VSC -6	BCA509P	**A]** ASP.NET- Lab	04 hrs/per week	02	50	30	20	20
			B] Web Development using PHP Lab	04 hrs/per week					
OJT/ FP/CEP/CC/RP (Choose either one from pool of courses)									
OJT/ FP/CEP/ CC/RP	FP/CEP-2	BCA510P	Field Project	04 hrs/per week	02	50	30	20	20
			Community engagement and service	04 hrs/per week					
					22	**550**			

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Faculty of Commerce & Management
Curriculum Structure
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Academic Year 2024-2025
Semester –VI

Course Type		Course Code	Course Tile	Total Lectures (Teaching Lectures /week)	Credits	Scheme of Examination			
						Max Marks	UA	IA	Min Marks
DSC : Discipline Specific Core									
Major-(Core) Mandatory	DSC -17	BCA601T	Python Programming	02 hrs/per week	02	50	30	20	20
	DSC -18	BCA602P	Python Programming lab	04 hrs/per week	02	50	30	20	20
	DSC -19 & 20	BCA603T	Marketing Management	04 hrs/per week	04	100	60	40	40
	DSC-21	BCA604T	IKS 2	02 hrs/per week	02	50	30	20	20
DSE: Discipline Specific Elective (Choose any one from each pool of course)									
SE: Discipline Specific Elective	DSE -3	BCA605T	A]Software Testing	02 hrs/per week	02	50	30	20	20
			B]Internet of Things (IOT)	02 hrs/per week					
	DSE -4	BCA606P	A]Software Testing-Lab	04 hrs/per week	02	50	30	20	20
			B]Internet of Things (IOT)-Lab	04 hrs/per week					
Minor (Choose any one from each pool of courses) It is from different discipline of the same faculty									
Minor	MN-7	BCA607T	A] Financial Management	02 hrs/per week	02	50	30	20	20
			A] Cyber Law	02 hrs/per week					
	MN-8	BCA608T	B] Company Law	02 hrs/per week	02	50	30	20	20
			B] Auditing	02 hrs/per week					
OJT/ FP/CEP/CC/RP (Choose any one from pool of courses)									
OJT/ FP/CEP/ CC/RP	OJT-1	BCA609P	On Job Training	08 hrs/per week	04	100	60	40	40
					22	**550**			

Dr. Babasaheb Ambedkar Marathwada University

Chhatrapati Sambhajinagar - 431001

Three Years B.C.A.,

Four Years B.C.A. (Honours)

And

Four Years B.C.A. (Honours with Research)

Degree Program in Affiliated Colleges to

Dr. Babasaheb Ambedkar Marathwada University

Under Faculty of Commerce & Management

SYLLABUS

(Revised) SEM I

(AS PER NEP-2020)

Subject: Computer Applications/ Commerce/

Management Science

Effective from 2024-25

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

Faculty of Commerce & Management

Curriculum Structure

Bachelor of Computer Applications (BCA) Honours

Academic Year 2024-2025

Semester -I

Program Outcomes (PO)

PO1: Computational information: Appreciate and apply mathematical organization, computing and domain information for the conceptualization of computing models from clear harms.

PO2: Difficulty Analysis: Talent to classify, significantly evaluate and prepare complex computing problems using fundamentals of computer knowledge and request domains.

PO3: Drawing / Improvement of Solutions: Facility to transform composite production scenarios and present-day issues into problems, explore, recognize and propose included solutions using rising technologies.

PO4: Accomplish Investigations of Compound Computing Troubles: Ability to invent and ways experiments interpret data and present well up to date conclusions.

PO5: Current Implement Procedure: Skill to select recent computing tools, skills and techniques compulsory for original software solutions

PO6: Acquire Knowledge of business functions and associated regulations

PO7: Develop Problem solving abilities

PO8: Acquire Administrative and managerial skills with desired technical proficiency

DSC: Discipline Specific Core

BCA I SEMESTER

Paper BCA101T **FUNDAMENTALS OF COMUTER**

Fundamentals of Computer: Theory 30 **Sessional 20** **Credit 02**

CO 1: Recognize the importance of computer in education and career,
CO 2: Understand the basic knowledge of computer,
CO 3: Perform common functional operations in windows. Identify software and hardware
CO 4: Understand Testing, errors and debugging,
CO 5: Understand the usage of Computer

30 Lectures

1) Introduction to Computers and its components: 6

Computer:

Introduction to Computer, the Components of Computer, Advantages and Disadvantages of Computer, Generations of Computer, Computer Software, Categories of Computers - Personal Computers, Mobile Computers and Mobile Devices, Consoles, Servers, Mainframes, Super Computers, Embedded Computers

Examples of Computer Usage, Applications of Computer in Society

Components of Computer:

The System Unit, Processor, Data Representation, Memory, Expansion Slots and Adaptor Cards, Ports and Connectors, Buses, Bays, Power Supply, Mobile Computers and Devices

2) Input and Output Units: 6

Input Devices:

Introduction to Input Devices, Keyboard,

Pointing Devices: Mouse, Trackball, Touchpad, Pointing Stick, Light Pen, Touch Screen,

Pen Input

Controllers for Gaming and Media Players: Gamepads, Joysticks and Wheels, Light Guns, Dance Pads, Motion-Sensing Game Controllers, Touch-Sensitive Pads

Voice Input, Input for PDAs, Smart Phones and Tablet PC, Digital Camera

Video Input: PC Video Cameras, Web Cams, Video Conferencing

Scanners and Reading Devices: Optical Scanners, Optical Readers (OCR, OMR, BCR, RFID Reader, MICR, Magnetic Stripe Card Reader, Data Collection Devices), Terminals (Point-of-Sale Terminal, Automated Teller Machine), Biometric Input

Output Devices:

Introduction to Output Devices, Display Devices, Flat-Panel Displays, CRT Monitors,

Printers:

Non-Impact Printers (Ink-Jet, Photo, Laser, Thermal, Mobile, Label and Postage, Plotters and Large-format Printers)

Impact Printers (Dot-matrix, Line)

Speakers, Headphones and Earphones, Fax Machines and Fax Modems, Multifunction Peripherals, Data Projectors, Force-Feedback Joysticks, Wheels and Gamepads

3) Storage: 6

Storage: Introduction to Storage, Magnetic Disks, Optical Disks, Tape, PC Cards and Express Card Modules, Miniature Mobile Storage Media, Microfilm and Microfiche, Enterprise Storage

Files: Introduction to Files, Types of Files

4) Computer Code 6

Computer Codes: Introduction to Computer Codes, Decimal System, Binary System, Hexadecimal System, Octal System, 4-bit BCD System, 8-bit BCD System, ASCII code, 16-bit Unicode

5) Conversion of Numbers (includes fixed and fractional numbers) 6

Non-Decimal to Decimal, Binary to Decimal, Decimal to Binary, Binary to Octal, Octal to Binary, Octal to Decimal, Decimal to Octal, Binary to Hexadecimal, Hexadecimal to Binary, Hexadecimal to Decimal, Decimal to Hexadecimal, Hexadecimal to Octal, Octal to Hexadecimal

Textbook:

Introduction to Computers (First Edition 2008) Publisher: Cengage Learning By Gary B. Shelly, Thomas J. Cashman and Misty E. Vermaat

Reference Books:

1. Fundamentals of Computer (First Edition- 2009) Publisher: McGraw-Hill by Balaguruswamy

2. Computer Fundamentals (Fourth Edition- 2007) Publisher: BPB Publications by Pradeep Sinha and Priti Sinha

3. Computer Fundamentals (First Edition-2010) Publisher: Pearson by Anita Goel

Paper BCA102P Fundamentals of Computer Lab: UA 30 IA 20 **Credit 02**

At the end of the course, students will be able to:

CO-1 : Understand the basis applications of Computer Software

CO-2 : Study the basic components of Computer system

CO-3 : Learn browsing & searching

CO-4 : Establish virtual communication using various online platforms

List of Practical's

1) Connecting Internet using wire & wireless.
2) Make Bootable pen drive of windows 7/8/10/11
3) Creating user in windows & configure
4) Browsing & Surfing on internet
5) Creating email address, sending receiving mail etc.
6) Practical Based on remote desktop on platform
7) Online meeting using zoom, google meet, skype etc.
8) Google form
9) Accessing network, identifying computer name & sharing drive & folder
10) Google Classroom

DSC: Discipline Specific Core

BCA I SEMESTER

Paper BCA 103T **Principles of Management**

Principles of Management: Theory 60 Sessional 40 **Credit 04 04 hrs/per week**

CO1: Understand the concepts related to Business.
CO2: Define management and explain the characteristics of Managers in organizations
CO3: Demonstrate the roles, skills and Levels of management.
CO4: List and describe major management theories as represented through the history of modern management thought.

60 Lectures

1. Definition, Nature & Scope of Management, Importance, Management as an Art, Science and Profession, Different approaches to Management. **12**
2. Evolution of Management thought and contribution of Taylor, Fayol, Follet, Mayo, Druker etc. **12**
3. Management Process, Planning, organizing, staffing, Direction, Controlling, coordination, leadership. **12**
4. Functional Management, Human Resource Management, Marketing Management, Financial Management, Materials Management. **12**
5. New Trends in Management: Six Sigma, TQM, Kaizen, Muda, Kanban, JIT, Toyota Production System, 5-S. **12**

Recommended Books:

1) Agarwal R.D. Organisation& Management
2) Varnashi Murthy Management Practice
3) Tripathi & Reddy Principles of Management
4) Ramasmy T Principles of Management

DSC: Discipline Specific Core

BCA I SEMESTER

Paper BCA104T **ACCOUNTINCY – I**

Accountancy – I: Theory 60 Sessional 40 **Credit 04** **04 hrs/per week**

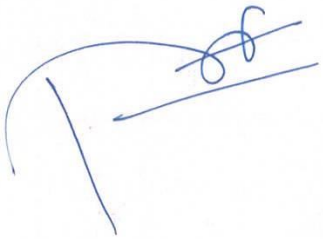
CO 1. Demonstrate accounting skills in business and economic world.
CO 2. Interpret the principles of accounting, book keeping and cash book.
CO 3. Understand the applications of accounting rules in determining financial results and preparation of financial statement with analytical perspective.
CO 4. Understand the utility of double entry accounting system.
CO 5 Comprehend different methods of depreciation with critical thinking

60 Lectures

1. Double Entry Accounting System Introduction and concept & Advantages, Accounting Cycle, Types of Account, Journalizing Rules, Subsidiary Books, Ledger, Trial Balance **12**
2. Cash Book – Single Column & Double Column. **12**
3. Trading ,Profit and Loss Account and Balance Sheet (Simple exercise on Sole Trader, Final Account expected) **12**
4. Partnership Account: Introduction, Preparation of Partnership Final Accounts. **12**
5. Depreciation Introduction, meaning and definition, methods of Depreciation 1. Fixed Installment Method 2. Reducing Balance Method **12**

Reference Books:

1. Shukla & Greval " Advanced Accounts " S. Chand & Co.
2. Batliboy " Advanced Accounting " , Standard Accounting Publication.
3. Khan & Jain " Financial Management " Tats Mc Graw Hill.
4. S.C Kuchal " Financial Management "



Skill Enhancement Course

(Choose any one)

A] M. S. Office

B] Web Development using HTML

Skill Enhancement Course

BCA I SEMESTER

PAPER BCA106P **A] M. S. Office**

M. S. Office: Theory 30 Sessional 20 **Credit 02** **02 hrs/per week**

CO 1. Understand fundamentals of computer
CO 2. Identify utility of computer equipment, including both hardware and software.
CO 3. Understand need and characteristics of data for business.
CO 4. Interpret the concept of Data Communication.
CO 5. Distinguish use of the Microsoft Office programs to create professional and academic documents.

30 Lectures

Familiarizing with different devices and facilities of computer system.

Study of MS-Word , Excel & Power Point:

1. Features and tools of MS-Office, Word, Excel, Power Point. 5

2. **Word:** Creating word documents, menu, office assistant working with files , editing text, saving, printing , undo, redo, spelling, formatting, ruler, selecting, cutting, copying, numbering, bullets, page, orientation, margins, tables in a document, formatting text in table, addition deletion of rows columns, record handling, sorting, label, & envelop, using forms, Recycle bin. Protection of documents, mail merge. 8

3. **Excel:** Excel Sheet creation, entering data, layout and formatting of sheet preview & print, working with range, rows, columns, total, sorting using formatting toolbars, format cells, cell content moving & coping grouped & ungrouped worksheet alignment of text, border colors, page setup, chart, types of chart merging sizing printing chart objects, formatting charts, formula palette , functions & uses - Analysing data with excel. 9

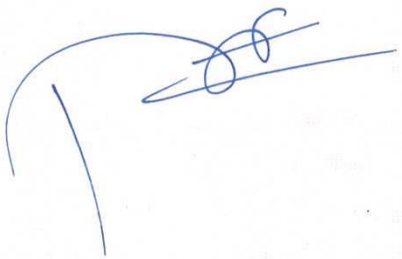
4. **Power Point:** Creating a presentation, modifying visual elements, adding objects, applying transition, animation and linking, preparing layouts, presenting a slide show. 8

Reference Books:-

1. Courter Marquis - Office - 2000
2. Courter Marquis - Office - 97
3. Mansfield - MS- Office
4. Swell - MS- Office - 97
5. Syber Publication - Office- 2000 Complete Ulrich, L. - Sams Teach Your self 2000.

MS-office Lab

1. Write an application to the College Principle for one week leave Ms-word
2. Prepare Resume in Ms-word
3. Design front page for MS-word Report
4. Prepare Certificate using MS-word
5. Design Index using Hyperlink and Bookmarks using MS-word
6. Prepare students details using ms-excel
7. Prepare class Time-table using MS-excel
8. Prepare five different types of Graph on any data in ms-excel
9. Prepare HSC mark sheet using formula in ms-excel
10. Practical Based on different formulas in ms-excel
11. Prepare presentation of your college
12. Prepare presentation using audio, video and Hyperlinks



Skill Enhancement Course

BCA I SEMESTER

PAPER BCA106P B]WEB DEVELOPMENT USING HTML

Web Development Using HTML: Theory 30 Sessional 20 Credit 02 02 hrs/per week

CO 1: To introduce the fundamentals of Internet, and the principles of web design.

CO 2: To construct basic websites using HTML and Cascading Style Sheets.

CO 3: To build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms.

CO 4: To develop modern interactive web applications using PHP, XML and MySQL

30 Lectures

Unit I HTML & Forms

Introduction To HTML, WWW, W3C, web publishing, Common HTML, Tags Physical & Logical, Some basic tags like, changing background color of page, text color etc., Text formatting tags, ,tags, Ordered & Unordered Lists Tags, Inserting image, Links: text, image links, image mapping , 7

Unit II Table

Tables , Frames, Form Introduction with text box, text area, buttons, List box, radio, checkbox, header & footer, Index form creating, mobile responsive, videos, songs. 7

Unit III CSS

Introduction To Style sheet, types of style sheets- Inline, External, Embedded CSS, text formatting properties, CSS Border, margin properties, Positioning Use of classes in CSS, color properties, use of & <spam>, padding, CSS multiple columns. 8

Unit IV JavaScript Basic

Introduction to Java Script, variable, commands, operations, syntax, objects, data types, JavaScript DOM theory. 8

Reference Books:

1. HTML, DHTML, JavaScript, Perl & CGI Ivan Bayross
2. HTML & CSS : The Complete reference, Fifth Edition By Thomas Powell
3. Html, Xhtml, And Css Bible (English) 5th Edition (paperback) by Schafer, Steven
4. HEAD FIRST HTML AND CSS, 2/ED (UPDATED FOR HTML) by ROBSON
5. Beginning HTML and CSS (English) (Paperback) by Rob Larsen
6. Learn to Code HTML and CSS (English) (Paperback) by Howe
7. Javascript Bible (English) 7th Edition by Danny Goodman Michael Morrison Paul Novitski Tia GustaffRayl
8. Javascript Programming: Pushing the Limits (English) 1st Edition By (2013)Jon Raasch
9. Head First Java

B|Web Development Technology -Lab

1

1. Write HTML programs to demonstrate following :
   - Bold - Italics -underline
   - Font – Times new roman - Font size – 24 - Font color – red
   - Paragraph - Strikethrough -Left align sentence
   - Right align sentence -Center align sentence
   - Page with yellow background - New line -Horizontal line
   - All headings -Moving text

2

2. Write HTML code to display following lists:

Fruits

- Apple
- Mango
- banana

1. Cold -drinks
   - Sprite
   - Thumps –up
   - Coke

- this
- is

1. the
2. unordered
   - ordered
   - list
3. example
4. of

- HTML.

Nesting lists

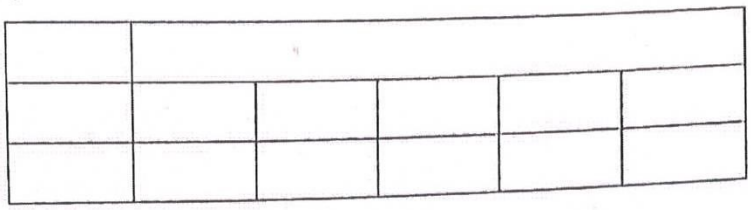
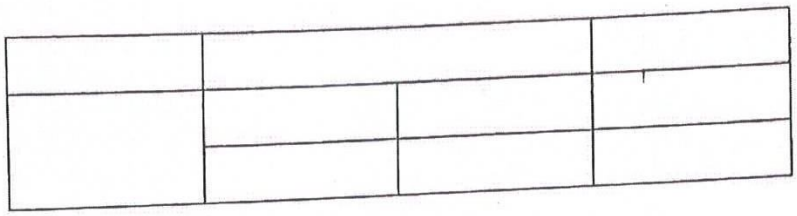
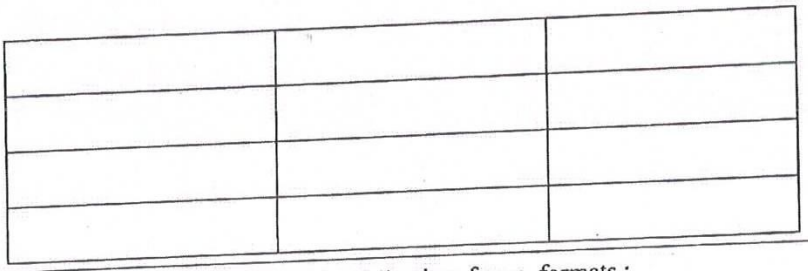
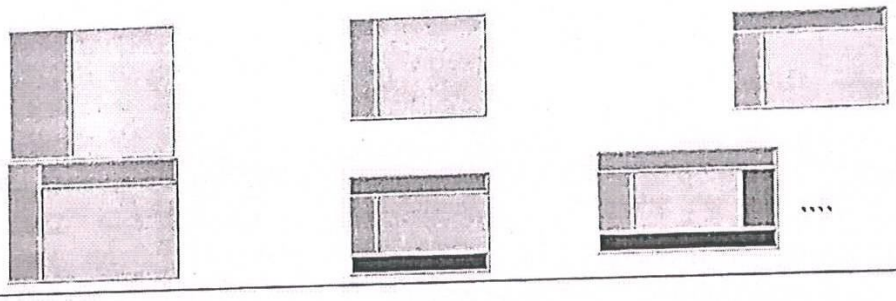
i. item 1
   - sub item 1
   - sub item 2
     a. sub item 1
     b. sub item 2

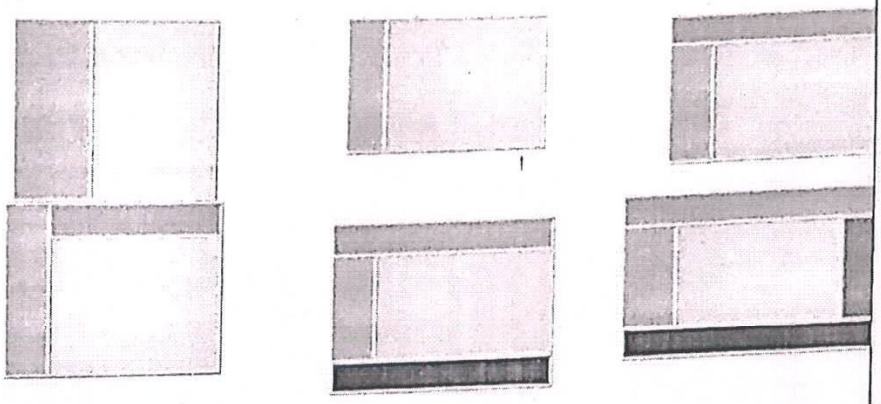
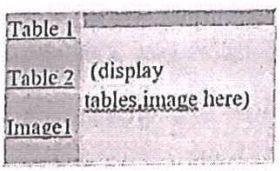
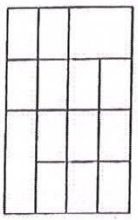
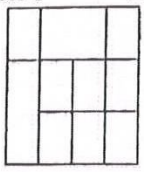
ii. item 2
   1. sub item 1
      - sub item 1
      - sub item 2
   2. sub item 2

iii. item 3

3

1. Write an HTML code that will display an image on webpage.
2. Write an HTML code that will display link, on click navigate to another webpage.
3. Write an HTML code that will use image as a link , on click to that image navigate to another webpage.
4. Write an HTML code that will divide image into different shapes (image mapping), on click to that image hot spot navigate to another webpage. (use shapes like rectangle, circle etc.)

4	1. Write an HTML code that will display following Table formats : (insert suitable row & column content) 1.  2.  3. 
5	Write an HTML code that will display following frame formats : 

6	Write an HTML code that will display following frame formats & use **target attribute** : 
7	1. Write an HTML code that will display a **Registration** form on a webpage. (Use text box, text area, buttons, list box, radio, checkbox). 2. Write an HTML code that will display a **feedback** form on a webpage.(Use suitable form elements). 3. Design an HTML form that will **accept student information** from webpage (Use suitable form elements). 4. Design an HTML form that will use all HTML5 controls. 5. Design an HTML form that will **accept student information** from webpage (Use suitable form elements). 6. Design an HTML form that will use all HTML5 controls.
8	19. write an HTML code for displaying following: When user clicks on Table 1, Table 2, display following   Table 1 Table 2 

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

Faculty of Commerce & Management

Curriculum Structure

Bachelor of Computer Applications (BCA) Honours

Academic Year 2024-2025

Semester –II

DSC: Discipline Specific Core

BCA II SEMESTER

PAPER BCA201T **PROGRAMMING IN C**

Programming in C: Theory 30 **Sessional 20** **Credit 02** **2hrs/per week**

Course Outcome

CO1: Illustrate the flowchart and design an algorithm for a given problem and to develop IC programs using operators

CO2: Develop conditional and iterative statements to write C programs

CO3: Exercise user defined functions to solve real time problems

CO4: Inscribe C programs that use Pointers to access arrays, strings and functions.

CO5: Exercise user defined data types including structures and unions to solve problems

30 Lectures

1. Introduction and importance of C language **2**

2. Constants, variables and data types:-Character set - tokens-constant-keywords and identifiers - variables- data types- declaration and assignment of variables- defining symbolic constants.

3.Operators and Expressions: Arithmetic, Relational and Logical Operators Assignment, increment and decrement of operators - conditional bitwise and special operators – arithmetic expression and its evaluation - hierarchy of arithmetic operations - evaluations, precedence and associatively - mathematical functions. **3**

4.Decision-Making and branching: If statement Switch statement - GOTO statement - The ? : Operators. 2

5.Decision - Making and Looping: WHILE, DO, and FOR statements. 3

6.Arrays: One-dimensional - Two - dimensional and Multi-dimensional arrays. 3

7.Handling of Character Set: Declaration & Initialization of string variables - reading from and Writing toscreen -Arithmetic operations - String handling functions 2

8.Structures and Unions: Definitions initialization and assigning values to member's arrays of Structures andarrays within structures structure with in structure- unions- size of structures. 3

9.Pointers: Declaration and initialization of pointers - pointer expression - pointer and arrays - pointer and character strings pointers and functions - pointers and structures, pointer on pointers. 3

10.File Maintenance in "C": Defining, Opening and closing a file - Input/output operations on a file- random access to file - command line arguments. 3

11.User Defined Functions: Form of "C" functions- calling a function - nesting of functions – recursion -functions with arrays. 3

Books:

1. Programming in "C" E Balgurusamy Tata Cm Graw-Hill
2. The "C" Programming Language :Briain W. Kenigham& Dennis Ritchie
3. The Spirit of "C"- Henrry Mulish, Herbert L. Cooper.
4. Mastering "C" - Crain Bolon.

DSC: Discipline Specific Core

BCA II SEMESTER

PAPER BCA202P

Programming in C Lab **Credit 2** **4hrs/per week**

1Write a program to print a message "welcome to c language ".

2. Write a program to swap values of two variables with and without using third variable.

3. Write a C program to perform addition, subtraction, division and multiplication of two numbers.

4. Write a program to accept the personal information and print

5. Write a program to input two numbers and display the maximum number.

6. Write a program to print the table of given number

7. Write a program to find that entered number is even or odd.

8. Write a program to print to print the even and odd number up to given number.

9. Write a program to print the sum of digits of a number using for loop

10. Write a program to print the alphabets from from a to z and z to a.

11. Write a program to input name, marks of 5 subjects of a student and display the name of the student, the total marks scored, percentage scored and the class of result.

12. Write a program to find the largest and smallest among three entered numbers and also display whether the identified largest/smallest number is even or odd.

13. Write a program to find the positive and negative number using if-else statement

14. Write a program to print 2 X 2 matrix

15. Write a Program to access an element in 2-D Array

16.Demonstrate file handling

17. Demonstrate pointers

18. Write a program to find biggest among three numbers using pointer.

19. Write a program to read and print an Employee's Details using Structure

20. Write a program to illustrate the use of unary prefix and postfix increment and decrement operators

21. Demonstrate recursion function

DSC: Discipline Specific Core

BCA II SEMESTER

PAPER BCA203T **BUSINESS STATISTICS**

Business Statistics: Theory 60 **Sessional 40** **Credit 04** **04hrs/per week**

Course Outcomes

CO 1. Comprehend the concept and scope of statistics.
CO 2. Understand types and classification of data with analytical perspective
CO 3. Application of various statistical tools.
CO 4. Identify and apply various methods of survey

60 Lectures

1. Introduction, Origin & Growth of Statistics, Definitions, Functions, Scopes and Limitations. 6

2. Organising Statistical Survey, Planning the Survey, Scope of Survey Techniques of data Collection. 6

3. Sampling and sample designs. 6

4. Classification and Tabulation of Data. 6

5. Measures of Central Value - Mean, Median and Mode. 12

6. Measures of Dispersion - Range,Quartile Deviation, Mean Deviation, Standard Deviation. 12

7. Correlation Analysis: Introduction, Utility of the study of correlation, Correlation and Causation, Types of correlation - Positive and Negative Correlation Karl Pearson's Coefficient 12

Reference Books:-

1. Seymour Lipschutz Probablity - Schaum Outline series. McGraw Hill.
2. M.C. Shukla and S.S. Gulshan - Statistic S. Chand & Co. New Delhi.
3. V. Seetharaman - A Text book of Statistics - M. Nandana South Bros.
4. Gupta and Kapoor Fundamental of Statistics.
5. D.N. Elhance Statistical Methods

DSC: Discipline Specific Core

BCA II SEMESTER

PAPER BCA204T **ACCOUNTANCY – II**

Accountancy-II: **Theory 60** **Sessional 40** **Credit 04** **04 hrs/per week**

Course Outcomes

CO1: Describe concept and methods of goodwill for business with social perspective.

CO2: Understand preparation of receipt and payment accounts.

CO3: Understand accounts of non-trading with company final accounts

CO4: Describe concept of Single Entry System

CO5: Apply steps to prepare income and expenditure account with balance sheet for business

60 Lectures

1. Goodwill of Partnership Firm

   Meaning, Need, factors affecting Goodwill, Methods of valuing

   Goodwill, - Average Profit Method, Super Profit Method **14**

2. Accounts of Non Trading Concern –

   Preparation of Receipts and Payment Accounts, Income and Expenditure Account and

   Balance Sheet **12**

3. Company Final Accounts

   (Treatment of Provisions, Treatment of Dividends, Interim & FinalDividend on shares,

   Income Tax on Dividends, Payment of Dividends, Unclaimed Dividends, Treatment of

   Preliminary Expenses, Capital Profit, Income TaxProvision, Advance Payment, Payment

   of Tax, TDS, -- Simple exercises expected). **17**

4. Single Entry System

   Concept- Ascertainment of Profit from records of singleentry method **17**

Books:-

1. Shukla &Greval "Advanced Accounts" S. Chand & Co.

2.Batliboy "Advance Accounting", Standard Accounting Publication.

3. Khan&Jain "Financial Management" Tats McGraw Hill.

4. S.C Kuchal "Financial Management"

VSE: Vocational Skill Courses

(Choose any one)

A] E-Business

B] Data Structure using C

BCA II SEMESTER

Paper BCA206P **E-Business**

E-Business: Theory 30 **Sessional 20** **Credit 02** **1 hrs/per Week**

Course Outcome

CO 1. Understand e-Commerce and e-Business and their different platform.
CO 2. Understand business models of E- marketing.
CO 3. Infer online financial services with all recent changes as per global need .
CO 4. Acquire knowledge about e-Business systems and network topology
CO 5. Analyze growth of e-Commerce and associated regulatory act

30 Lectures

Unit I: E-Commerce:
What is E-Commerce (Introduction And Definition), Main activities E-Commerce, Goals of E-Commerce, Technical Components of E-Commerce, Functions of E-Commerce, Advantages and disadvantages of E-Commerce, Scope of E-Commerce, Electronic Commerce Applications, Electronic Commerce and Electronic Business (B2B, B2C, C2C, B2G) **6**

Unit II: The Internet and WWW:
Evolution of Internet, Domain Names and Internet Organization (.edu, .com, .ac, .mil, .gov, .net etc., Types of Network, Internet Service Provider, World Wide Web **6**

Unit III: Internet and Extranet:
Definition of Internet, Advantages and Disadvantages of the Internet, Component of a Internet, Information technology structure, Development of a Intranet, Extranet and Intranet Difference, Role of Internet in B2B Application **6**

Unit IV: Electronic Data Exchange:
Introduction, Concepts of EDI and Limitation, Applications of EDI, Disadvantages of EDI, EDI model, Digital Signature **6**

Unit V: Electronic Payment System:
Introduction, Types of Electronic Payment System, Payment Types, Traditional Payment, Value Exchange System, Credit Card System, Electronic Fund Transfer, Paperless bill, Modern Payment Cash, Electronic Cash/Digicash 6

Recommended Books:

1. Rayudu C S E-Commerce- E-Business
2. Ravi Kalakots& Andrew B. Whinston Electronic Commerce
3. Ravi Kalakots& Marcia Robinson E-business
4. Rich, Joson R Starting an E-Commerce Business
5. K K Bajaj E Commerce

VSE: Vocational Skill Courses

BCA II SEMESTER

E-Business: Lab 30 **Sessional 20** **Credit 02** **2 hrs/per Week**

1. Students shall prepare a report on growth and evolution of Ecommerce from authentic source. Provide statistical growth till recent year. Collect data from net.
2. Students shall list out the top Ecommerce Web Sites in India.
3. List out the websites whose advertisement is aired on television.
4. Categorise the Ecommerce website as B2B, B2C and C2C websites and prepare a list.
5. Study various Payment modes offered by the ecommerce websites.
6. Study the Payment gateways used by different ecommerce websites.
7. Place a mock purchase order.
8. Study the complete layout of a particular website dealing with different payment options.
9. Study different types of advertisements sponsored on the websites.
10. List out different books related to BCA III Sem subjects from www.flipkart.com. Place a Mock purchase order.
11. List out the details required for online purchase.
12. Students shall prepare a practical journal covering all the above points and also include Screen shots of ecommerce websites studied.

VSE: Vocational Skill Courses

BCA II SEMESTER

PAPER BCA206P **DATA STRUCTURE USING C**

Data Structure Using C: Theory 30 **Sessional 20** **Credit 02** **1 hrs/per Week**

Course Outcome

CO1: Make use of knowledge of Non-Primitive, Linear Data Structure – Arrays to solve the Problems

CO2: Make use of Non-Primitive, Linear Data Structure – Stack, Queues, recursion to solve Certain Problems

CO3: Illustrate the various types of linked list structures with their applications including Representations and operations.

CO4: Make use of Non-Linear Data Structure – Trees solve certain Problems

CO5: Make use of Non-Primitive Non-Linear Data Structure – Graphs, Hashing etc. to solve certain Problems.

30 Lectures

Unit -I Introduction to Data Structures: Algorithms and Flowcharts, Basics Analysis on Algorithm, Complexity of Algorithm, Introduction and Definition of Data Structure, Classification of Data, Arrays, Various types of Data Structure, Static and Dynamic Memory Allocation, Function, Recursion. Arrays, Pointers and Strings: Introduction to Arrays, Definition, One Dimensional Array and Multidimensional Arrays, Pointer, Pointer to Structure, various Programs for Array and Pointer. Strings. Introduction to Strings, Definition, Library Functions of Strings. **8**

Unit-II Stacks and Queue: Introduction to Stack, Definition, Stack Implementation, Operations of Stack, Applications of Stack and Multiple Stacks. Implementation of Multiple Stack Queues, Introduction to Queue, Definition, Queue Implementation, Operations of Queue, Circular Queue, De-queue and Priority Queue. **7**

Unit-III Linked Lists and Trees: Introduction, Representation and Operations of Linked Lists, Singly Linked List, Doubly Linked List, Circular Linked List, And Circular Doubly Linked List. Trees Introduction to Tree, Tree Terminology Binary Tree, Binary Search Tree, Strictly Binary Tree, Complete Binary Tree, Tree Traversal, Threaded Binary Tree, AVL Tree B Tree, B+ Tree.

8

Unit -IV Graphs: Searching, Sorting and Hashing Graphs: Introduction, Representation to Graphs, Graph Traversals Shortest Path Algorithms. Searching and Sorting: Searching, Types of Searching, Sorting, Types of sorting like quick sort, bubble sort, merge sort, selection sort. Hashing: Hash Function, Types of Hash Functions, Collision, Collision Resolution Technique (CRT), Perfect Hashing 7

Reference Book:

1. Robert Kruse, C.L Tondo and Bruce Leung, "Data Structure and Programming in C", Pearson Education.

2. Yedidyah Langsam, Moshe J. Augenstein, and Aaron M. Tenenbaum, "Data Structure using C and C++", Pearson Education 2nd Edition.

3. Seymour Lipschutz and G A VijayalakshmiPai, "Data Structures", Tata Mc Grew Hills

4. Robert Lafore, " Sams Teach Yourself Data Structures and Algorithms in 24 Hours", Sams Techmedia

5. Alfred V Aho, John E Hopcroft and Jeffery D Ullman, " Data Structures and Algorithms", Pearson Education.

6. Samiran Chattopadhyay, Debabrata Ghosh Dastidar and Matagini Chattopadhyay, " Data Structures through C Language", BPB Publication.

PAPER BCA206P DATA STRUCTURE USING C-LAB Credit 02 2hrs/per Week

	Data Structure using C Lab
1	Write a program to demonstrate basic operations on array , such as create single dimension array, display array and search elements in array
2	Write a program to demonstrate basic operations on array , such as create double dimension array, display array and search elements in array
3	Write a program to demonstrate malloc and calloc functions
4	Write a program to demonstrate a pointer passing as an argument to function
5	Write a program to demonstrate passing a structure as an argument to function
6	Write a program to demonstrate recursion function using call by value
7	Write a program to implement stack using an array (Push , Pop , display and Search operations)
8	Write a program to implement stack using Linked List (Push , Pop , display and Search operations)
9	Write a program to implement queue using an array(Create ,Insert , display , delete and Search operations)
10	Write a program to implement queue using Linked List (Create ,Insert , display , delete and Search operations)
11	Write a program to implement Linked List and perform (Create ,Insert , display , delete and Search operations)

12	Write a program to implement Doubly Linked List and perform (Create ,Insert , display , delete and Search operations)
13	Write a program to implement doubly Linked List and perform (Create ,Insert , display , delete and Search operations)
14	Write a program to implement Circular Linked List and perform (Create ,Insert , display , delete and Search operations)
15	Write a program to implement circular Linked List and perform (Create ,Insert , display , delete and Search operations)
16	Write a program to implement Circular Queue and perform (Create ,Insert , display , delete and Search operations)
17	Write a program to demonstrate Sparse Matrix functionality
18	Write a program to construct Tree and write inorder, preorder and post order
19	Write a program to construct Graph
20	Write a program to perform Bubble sorting on data
21	Write a program to perform Selection sorting on data
22	Write a program to perform Insertion sorting on data