

### Choice Based Credit System (CBCS) in Light of NEP-2020 B.Com. - IV SEMESTER (2022-2026)

#### **BCOM401 - COST ACCOUNTING**

			TEACHING & EVALUATION SC							Æ	
COLIDGE	COURSE	THI	EORY		PRACT AL	TIC				S	
CODE	CATEGORY	COURSE NAME	END SEM University Exam	Two Term Exam		END SEM University Exam	Teachers	L	Т	P	CREDITS
BCOM401	MAJ/MIN	Cost Accounting	60	20	20	ı	-	3	-	•	3

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical: C - Credit; MAJ/MIN-Major/Minor Course

#### **Course Objective**

- 1. Understand the concepts of cost. Classify cost concepts.
- 2. Familiarity with concepts, and processes used to determine product cost.

### **Examination Scheme**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of five questions. Each question will carry 12 Marks and consist of four questions, out of which student will be required to attempt either question number (a) and (b) or question number (c) and (d).

Each question i.e. (a), (b), (c) and (d) will be of 6 marks.

#### **Course Outcomes**

- **CO1** Know the significance of cost accounting.
- **CO2** Know the meaning of inventory control and apply the techniques of inventory control.
- CO3 Understand the meaning of direct labour and indirect
- **CO4** Apply different methods for dealing with under- and over-absorption overheads
- **CO5** Identify the cost data with respect to operating costing

#### COURSECONTENT

**Unit I: Introduction to Cost Accounting**– Meaning and Definition of Cost, Costing and Cost Accounting – Objectives of Costing – Comparison between Financial Accounting and Cost Accounting – Designing and Installing a Cost Accounting System – Cost Concepts, Classification of Costs, Cost Unit, Cost Center, Elements of Cost, Preparation of Cost Sheet Tenders and Quotations.

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.



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#### **BCOM401 - COST ACCOUNTING**

**UNIT II:** Material Cost Control – Meaning – Types: Direct Material, Indirect Material. Material Control – Purchasing Procedure– Store Keeping – Techniques of Inventory Control – Levels settings – EOQ – ABC Analysis– VED Analysis – Just In-Time – Perpetual Inventory System – Documents used in Material Accounting – Methods of Pricing Material Issues: FIFO, LIFO, Weighted Average Price Method, and Simple Average Price Method.

**Unit III: Labour Cost Control**—Meaning — Types: Direct Labour, Indirect Labour, Timekeeping, Time booking, Idle Time, Overtime, Labour Turn Over. Methods of Labour Remuneration: Time Rate System, Piece Rate System, Incentive Systems (Halsey plan, Rowan Plan, and Taylor's differential Piece Rate System).

**Unit IV: Overhead Cost Control**—Meaning and Definition, Classification of Overheads, Procedure for Accounting and Control of Overheads, Allocation of Overheads, Apportionment of Overheads, Primary Overhead Distribution Summary, Secondary Overhead Distribution Summary, Repeated Distribution Method and Simultaneous Equations Method, Absorption of Factory Overheads, Methods of Absorption (Theory Only) Machine Hour Rate, Problems on Machine Hour Rate.

**Unit V: Operating Costing/Service Costing**—Introduction Objectives Features Transport Costing, Boiler House Costing, Canteen House Costing, Hospital Costing Worked-out Problems. cost control and cost reduction—Meaning of cost control and cost reduction, areas covered by cost control and cost reduction.

#### **Suggested Readings**

- 1. Lal J., (2009). *Cost Accounting*. Tata McGraw-Hill Education, India.
- 2. Maheshwari, S.N. (2013). *Cost and Management Accounting*. Sultan Chand and Sons. Latest Edition
- 3. Arora M.N. (2016) *Cost and Management Accounting*. Himalaya Publishing House; Third Edition
- 4. Horngren, Foster and Dater, (2008). *Cost Accounting, a Managerial Emphasis*. Prentice Hall. Latest Edition.
- 5. Mohd, A. (2008). Cost Accounting. Vrinda Publication. Latest Edition.
- 6. Kupappapally, J. (2010). Accounting for Managers. PHI Learnings. Latest Edition.
- 7. Maheshwari, S.N.(2013). *Cost and management Accounting*. Sultan Chand and Sons. Latest Edition.



### Choice Based Credit System (CBCS) in Light of NEP-2020 B.Com. - IV SEMESTER (2022-2026)

#### **BCOMTA401 ADVANCED CONCEPTS IN GST**

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COURSE	TH	EORY		PRACT AL	TIC				S		
CODE	CATEGORY	COURSE NAME	END SEM University Exam	Two Term Exam		END SEM University Exam	Teachers	L	Т	P	CREDITS
BCOMTA 401	MAJ/MIN	Advanced Concepts in GST	60	20	20	ı	-	3	-	1	3

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical: C - Credit; MAJ/MIN-Major/Minor Course

### **Course Objective**

- 1. To acquaint the students with theoretical and practical knowledge of GST.
- 2. To familiarize the students with major and latest provisions of GST and integrated GST.

### **Examination Scheme**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of five questions. Each question will carry 12 Marks and consist of four questions, out of which student will be required to attempt either question number (a) and (b) or question number (c) and (d).

Each question i.e. (a), (b), (c) and (d) will be of 6 marks.

#### **Course Outcomes**

- CO1 Familiarize and understand the concept of direct and indirect taxes, Goods and Service Tax, goods, services, suppliers, business, manufacturer, casual trader, aggregate turnover, input and output tax, tax credits, integrated tax, intermediary and output tax.
- CO2 Analyze the difference between direct and indirect taxation, advantages of GST, procedure for registration under GST.
- CO3 Evaluate the taxation structure before and after implementation of GST, types of tax rates under GST, eligibility and conditions for taking input credit.
- **CO4** Evaluate the taxes subsumed under CGST and SGST, eligibility and conditions for taking input credit, place of supply of Goods or services.
- **CO5** To make them to be a tax consultant in preparing the tax planning, tax management. Payment of tax and filing of tax returns.

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.



### Choice Based Credit System (CBCS) in Light of NEP-2020 B.Com. - IV SEMESTER (2022-2026)

#### **BCOMTA401 ADVANCED CONCEPTS IN GST**

#### **COURSE CONTENT**

**Unit I: Introduction to Provisions relating to GST** – Review of various provisions regarding Goods and Service Tax (GST). Provisions relating to Tax invoice proforma and Procedure for preparing it (Practical Problems), Provisions regarding Debit and Credit Notes.

**Unit II: Accounts and Payment** -Accounts and Records in GST, Payment of Tax, Provisions relating to Interest and Refund.

**Unit III: Returns -** Furnishing details of outward supplies and Inward supplies, Furnishing of Returns, Types of various returns and relating Forms — Monthly Return, Quarterly Return (Composition), Annual Return.

**Unit IV: Integrated GST and Reverses Charge -** General study of Integrated Goods and Service Tax Act, (IGST) Special provisions relating to Job Work, Process for Reverse Charge mechanism.

**Unit V: Administration of GST** - Procedure and types of Assessment, GST Administration - appointment and powers of officers, Provisions of Inspection, Search, Seizure and arrests, Offences and penalties Appeals and Revision.

#### Suggested Readings

- 1. Subramanian, P.L. (2017). *Guide to GST*, Snow white Publications, India, Latest Edition.
- 2. Datey, V.S. (2019). *GST Ready Reckoner*, Taxmann Publications, New Delhi, India, Latest Edition.
- 3. Garg & Keshav, R (2021). *GST Ready Reckoner*, Bharat Publisher, New Delhi, India, Latest Edition.
- 4. Gupta, S.S. (2017). *GST Law & Practice*, Taxmann Publications, New Delhi, India, Latest Edition.

#### Website Visit

- 1. <a href="https://services.gst.gov.in/">https://services.gst.gov.in/</a>
- 2. http://www.gstcouncil.gov.in/



### Choice Based Credit System (CBCS) in Light of NEP-2020 B.Com. - IV SEMESTER (2022-2026)

#### BCOMBF401 INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT

			TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL					
COURSE CODE	CATEGORY	COURSE NAME	END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	Т	P	CREDITS
BCOMBF401	MAJ/MIN	Investment Analysis and Portfolio Management	60	20	20	-	-	3	-	1	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; MAJ/MIN-Major/Minor Course

#### **Course Objective**

This course is designed to teach the fundamentals of investments along with the analysis and strategies to become a successful investor. It will start from the investment introduction to the performance Evaluation of securities and portfolios. It discusses the risk-return tradeoff of an individual investor, and it also persists on how investment in the securities market is evaluated based on Fundamental and Technical analysis.

#### **Examination Scheme**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of five questions. Each question will carry 12 Marks and consist of four questions, out of which student will be required to attempt either question number (a) and (b) or question number (c) and (d).

Each question i.e. (a), (b), (c) and (d) will be of 6 marks.

### **Course Outcomes**

- **CO1** Understand the various alternatives available for investment.
- CO2 Understand the various types of security analysis which will help the students in Investment decision making.
- CO3 Understand various theories of portfolio management.
- **CO4** Evaluate the relationship between risk and return.
- **CO5** Gain knowledge of the various strategies and models followed by investment practitioners.

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.



### Choice Based Credit System (CBCS) in Light of NEP-2020 B.Com. - IV SEMESTER (2022-2026)

#### BCOMBF401 INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT

#### **COURSE CONTENT**

**Unit I: Introduction:** Basics of Investment -Economic vs. Financial Investment, Investment vs. Speculation, Investment vs. Gambling, Investment Objectives, Investment Attributes, Features of a good investment, Investment Process.

**Unit II: Analysis for Investment:** Economy and Industry Analysis, Company Level Analysis, Fundamentals, and Technical Analysis. Approaches to Investment Decision Making, Emerging trends of Security Analysis in the global market.

**Unit III: Portfolio Theory:** Dow Theory, Elliot Wave Theory, Efficient market theory, Markowitz portfolio theory, Random-Walk Theory. Diversified and concentrated Portfolio.

**Unit IV: Portfolio Analysis:** Concept of Risk, Types of Risk- Systematic risk, Unsystematic risk, Risk and return trade-off, Portfolio and Single asset Returns and Risk, Mean-Variance Criterion covariance, Beta (simple problems), Risk and Return with Different correlation, Sharpe's Single Index Model, Sharpe's Optimal Portfolio Construction of the Optimal Portfolio.

**Unit V: Portfolio Management:** Asset Pricing Model Capital Asset Pricing Model (CAPM), Security Market Line - Assumptions Arbitrage Pricing Model (APT), Portfolio Performance Models, Sharpe's Performance Index, Treynor's Performance Index, Jensen's Performance Index.

#### Suggested Readings

- 1. Kevin,S.(2019) *Security Analysis and Portfolio Management*, PHI Learning Pvt. Ltd. Latest Edition
- 2. Shashidharan, K. (2019) Security Analysis and Portfolio Management, Tata McGraw Hill. Latest Edition
- 3. Fisher, Jordon, (2018) Security Analysis and Portfolio Management. Latest Edition
- 4. Bhatt, (2011) Security Analysis & Portfolio Management, Wiley Publication. Latest Edition
- 5. Avadhani, (2019) Security Analysis & Portfolio Management, Himalaya Publication. Latest Edition
- 6. Bhat, S. (2018) Security Analysis and Portfolio Management, Excel books. Latest Edition



# Choice Based Credit System (CBCS) in Light of NEP-2020 B.Com. - IV SEMESTER (2022-2026)

#### **BCOMES401 INTRODUCTION TO MICRO FINANCE**

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	CATEGORY	COURSE NAME		HEOR wam	Y z *=		Teachers Assessment*	L	T	P	CREDITS
BCOMES401	MAJ/MIN	Introduction to Micro Finance	60	20	20	-	-	3	-	-	3

### **Course Objectives**

This course introduces students to the practices of MFIs in a variety of different developing countries. It identifies the wide varieties of practices and governance structures of these organizations, and the issues they confront.

#### **Examination Scheme**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of five questions. Each question will carry 12 Marks and consist of four questions, out of which student will be required to attempt either question number (a) and (b) or question number (c) and (d).

Each question i.e. (a), (b), (c) and (d) will be of 6 marks.

#### **Course Outcomes**

- CO1 Understand the innovative concept of micro finance and its approaches.
- CO2 Deep knowledge of micro finance as the key tool of financial inclusion, Government schemes and self help groups.
- CO3 Develop an insight and understanding of various products of micro finance.
- **CO4** Practical knowledge of various regulatory guidelines and directives relating to Micro Finance
- CO5 Understanding of other evaluations of micro finance and microfinance ethics.

#### **COURSE CONTENT**

**Unit I:** An Introduction to Microfinance Demand and Supply of Microfinance – A Development Strategy and an Industry Role of Grameen Banks in Microfinance, Microfinance Innovative Concepts, Approaches and Financial Inclusion, Reasons for FI.

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.



### Choice Based Credit System (CBCS) in Light of NEP-2020 B.Com. - IV SEMESTER (2022-2026)

### **BCOMES401 INTRODUCTION TO MICRO FINANCE**

Unit II: Financial & Operational Evaluation of MFIs: Analyzing and Managing Financial Performance of MFIs, Analyzing and Managing Financial Statements of MFIs/RRBs, Financial Ratios, Capital Adequacy, IRAC and Provisioning Norms, Revenue Models of Microfinance, Role of Subsidies and Donors in Microfinance, Benchmarking and Rating of MFIs Microfinance - Operational Evaluation, Business Planning - Impact Assessment - CVP Analysis, Cost Volume and Profit (CVP) Analysis – Microfinance.

**Unit III: Other Evaluation of Microfinance:** Market Evaluation of MicrofinanceProducts and Services, Pricing of Financial Services, Legal and Regulatory Compliance in Microfinance, Social Evaluation of Microfinance, Role of Ethics in Microfinance. Various Documentation in Microfinance Unit

**IV: Microfinance in India:** State Intervention in Rural Credit, Bank Linkup and Programme, Governance and the Constitution of the Board of Various Forms of MFIs in India, Intermediaries for Microfinance, Microfinance Delivery Models and Banks Linkages Programme Unit IV: Regulatory framework: latest RBI Guidelines- NBFC-MFI (RBI)Directives 2015, KYC and Application, KYC process

Unit V: Issues, Trends and Frontiers of Microfinance: Emerging Issues in Microfinance, Gender Issues in Microfinance, Role of Technology in Microfinance, Micro Credit as Priority Sector Advance, Impact of Microfinance on Empowerment of Women.

#### Suggested Readings

- 1. Rana O.C., HemRaj (2016), Microfinance, Himalaya Publishing House
- 2. Branch, Brian & Janette Klaehn (2002), *Striking the Balance in Microfinance: A Practical Guide to Mobilizing Savings*. PACT Publications, Washington.
- 3. Dowla, Asif, Dipal Barua(2006). *The Poor Always Pay Back: The Grameen II Story*. Kumarian Press Inc., Bloomfield, Connecticut.
- 4. Hirschland, Madeline (ed.) (2005) *Savings Services for the Poor: An Operational Guide*. Kumarian Press Inc., Bloomfield CT.
- 5. Ledgerwood, Joanna and Victoria White (2006), *Transforming Microfinance Institutions: Providing Full Financial Services to the Poor*. World Bank.
- 6. Rutherford, Stuart (2000), *The Poor and Their Money*. Oxford University Press, Delhi.



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# Choice Based Credit System (CBCS) in Light of NEP-2020 B.Com. - IV SEMESTER (2022-2026)



# Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Shri Vaishnav Institute of Computer Applications

Name of the Program: BCA +MCA in Banking Technology

											SCHEME	
				T	ГР	CREDITS	1	HEORY	Y PR		ACTICAL	
COURSE CODE	CATEGORY	COURSE NAME	gramming				END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	
BCCA105	Compulsory	Programming Methodology and C	3	1	0	4	60	20	20	0	0	

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

Q/A - Quiz/Assignment/Attendance, MST - Mid Sem Test.

#### Course Educational Objectives (CEOs):

- To familiarize the students with programming and to encourage them to develop their logic.
- To make students well versed with C language to solve problems efficiently.
- Using simple and well drawn illustrations develop their programming skills using modular programming.
- To cover the various data structures and their applications.

#### Course Outcomes (COs): Student will be able to:

- Develop algorithms for problems.
- Apply the programming concepts to solve the given problems.
- Write the programs using modular programming.
- Understand and write programs using various data structures very efficiently.
- Write the programs using pointers and to manage memory.
- Implement programs of file handling.

#### Unit-I

An overview: Problem identification, analysis, design, coding, testing & debugging, implementation, modification & maintenance; algorithms & flowcharts; Characteristics of a good program - accuracy, simplicity, robustness, portability, minimum resource & time requirement, modularization; Rules/ conventions of coding, documentation, naming variables; Top down design; Bottom-up design.

#### Unit-II

Fundamentals of C Programming: History of C; Structure of a C Program; Data types; Constant

Chairperson Board of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Chairperson Faculty of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

Controller of Examination Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Joint Registrar Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/Project/Participation in class (Given that no component shall be exceed 10 Marks)



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# Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Shri Vaishnav Institute of Computer Applications

Name of the Program: BCA +MCA in Banking Technology

				L T	ГР	CREDITS		HING &		UATION SCHEME PRACTICAL		
COURSE CODE	CATEGORY	COURSE NAME	L				END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	
BCCA105	Compulsory	Programming Methodology and C	3	1	0	4	60	20	20	0	0	

& Variable, naming variables; Operators & expressions; Control Constructs – if-else, for, while, do-while; Case switch statement; Arrays; Formatted & unformatted I/O; Type modifiers & storage classes; Ternary operator; Type conversion & type casting; Priority & associativity of operators.

#### Unit-III

**Modular Programming:** Functions; Arguments; Return value; Parameter passing – call by value, call by reference; Return statement; Scope, visibility and life-time rules for various types of variable, static variable; Calling a function; Recursion – basics, types of recursion- direct, indirect.

#### Unit-IV

Advanced Programming Techniques: Special constructs – Break, continue, exit (), goto& labels; Pointers - & and \* operators, pointer expression, pointer arithmetic, dynamic memory management functions like malloc(), calloc(), free(); String; Pointer v/s array; Structure – basic, declaration, membership operator.

#### Unit-V

**Miscellaneous Features:** printf & scanf family; C preprocessor – basics, #Include, #define, #undef, conditional compilation directive like #if, #else, #elif, #endif, #ifdef and #ifndef

#### Text Books:

- 1. KanitkarYashwant, 'Let us C', BPB New Delhi
- 2. Balaguruswami, 'Ansi C', TMH, Delhi
- 3. Kerninghan& Ritchie "The C programming language", PHI
- 4. Schildt "C:The Complete reference" 4th ed TMH.
- 5. Cooper Mullish "The Spirit of C", Jaico Publishing House, Delhi



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# Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Shri Vaishnav Institute of Computer Applications

Name of the Program: BCA +MCA in Banking Technology

					P	CREDITS		CHING THEOI		UATION SCHEME PRACTICAL		
COURSE CODE	CATEGORY	COURSE NAME	L	Т			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	
BCCA106	Compulsory	Programming Lab using C	0	0	4	2	0	0	0	30	20	

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

#### Course Educational Objectives (CEOs):

- To familiarize the students with programming and to encourage them to develop their logic.
- To make students well versed with C language to solve problems efficiently.
- Using simple and well drawn illustrations develop their programming skills using modular programming.
- To cover the various data structures and their applications.

### Course Outcomes (COs):

Student will be able to:

- Develop algorithms for problems.
- Apply the programming concepts to solve the given problems.
- Write the programs using modular programming.
- Understand and write programs using various data structures very efficiently.
- Write the programs using pointers and to manage memory.
- Implement programs of file handling.

### List of Experiments:

- 1. Define an algorithm and flowchart. Draw algorithm and flow chart for a program that converts an input Fahrenheit degree into Celsius equivalent.
- 2. Write an algorithm and a C program to find the greatest among three numbers.
- **3.** WAP to print an input string in lower case, upper case and mixed case using library function.

Chairperson	
<b>Board of Studies</b>	
Shri Vaishnav Vidyapeeth	
Vishwavidyalaya, Indore	

Q/A - Quiz/Assignment/Attendance, MST - Mid Sem Test.

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/Project/Participation in class (Given that no component shall be exceed 10 Marks)



### Choice Based Credit System (CBCS) in Light of NEP-2020 B.Com. - IV SEMESTER (2022-2026)



# Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Shri Vaishnav Institute of Computer Applications

Name of the Program: BCA +MCA in Banking Technology

								ACHING & EVALU THEORY			SCHEME CTICAL
COURSE CODE	CATEGORY	COURSE NAME	L	Т	P	CREDITS	END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*
BCCA106	Compulsory	Programming Lab using C	0	0	4	2	0	0	0	30	20

- **4.** WAP to read in a three digit number produce following output (assuming that the input is 679)
  - 6 hundreds
  - 7 tens
  - 9 units
- 5. WAP a C program to reverse an input number.
- **6.** Draw a flow chart to find prime number from 1 to 100.
- 7. WAP to find factorial of accepted number.
- **8.** WAP to calculate factorial of a number using recursion.
- 9. WAP in C to generate Fibonacci series.
- 10. WAP in C to generate Pascal triangle.
- 11. WAP in C to swap values of two variables.
- 12. WAP in C to search a given element in an array using linear search.
- **13.** WAP to sort an integer array in ascending and descending order according to user's choice.
- **14.** Write a menu driven program to perform matrix addition, subtraction and multiplication.
- 15. WAP a C program to reverse a string by recursion.
- 16. WAP to read and write a structure.

#### Text Books:

- 1. Kanitkar Yashwant, 'Let us C', BPB New Delhi
- 2. Balaguruswami, 'Ansi C', TMH, Delhi
- 3. Kerninghan & Ritchie "The C programming language", PHI
- 4. Schildt "C:The Complete reference" 4th ed TMH.
- 5. Cooper Mullish "The Spirit of C", Jaico Publishing House, Delhi