MANONMANIAM SUNDARANAR UNIVERSITY
TIRUNELVELI

UG COURSES – AFFILIATED COLLEGES

B.Sc. Information Science and Management

(Choice Based Credit System)

(with effect from the academic year 2016-2017 onwards)

(45th SCAA meeting held on 09.02.2017)

Sem.	Pt I/II/ III/ IV/ V	Sub No.	Subject status	Subject Title	Hrs/ week	Cre-dits	Marks				
							Maximum			Passing minimum	
							Int.	Ext.	Tot.	Ext.	Tot.
III		15	Core – 3	PRINCIPLES OF MANAGEMENT	6	4	25	75	100	30	40
		16	Core – 4	OBJECT ORIENTED PROGRAMMING WITH C++	6	4	25	75	100	30	40
	III	17	Major Practical – III	OBJECT ORIENTED PROGRAMMING WITH C++ LAB	6	4	50	50	100	20	40
		18	Allied III	ACCOUNTANCY	4	2	25	75	100	30	40
		19	Allied Practical – III	ACCOUNTANCY (TALLY)	2	2	50	50	100	20	40
	IV	20	Skilled Based subject –I	DTP	4	4	25	75	100	30	40
	IV	21	Non-Major Elective - I	INTRODUCTION TO INFORMATION TECHNOLOGY	2	2	25	75	100	30	40
			SUB- TOTAL		30	22					

Sem	Pt I/II/III/IV/V	Sub No.	Subject status	Subject Title	Hrs/week	Credits	Int.	Ext.	Tot.	Ext.	Tot.
							Maximum			Passing minimum	
IV	III	22	Core - 5	JAVA PROGRAMMING	6	4	25	75	100	30	40
		23	Major Practical - IV	JAVA PROGRAMMING LAB	6	4	50	50	100	20	40
		24	Major Elective-I	(A)MOBILE COMPUTING (B) WIRELESS APPLICATION PROTOCOL INTELLIGENCE (C)INTERNET SECURITY	6	5	25	75	100	30	40
		25	Allied IV	OPERATIONS RESEARCH & NUMERICAL ANALYSIS	4	4	25	75	100	30	40
		26	Practical - IV	ACCOUNTANCY (TALLY LAB)	2	2	50	50	100	20	40
	IV	27	Skilled Based subject - II	ANIMATION APPLICATION	4	4	25	75	100	30	40
	IV	28	Non Major Elective-II	BASIC PROGRAMMING DESIGN	6	2	25	75	100	30	40
	V		Extension Activity	NCC,NSS, YRC, YWF		1					
		SUB- TOTAL			30	26					

PRINCIPLES OF MANAGEMENT

Unit – I

INTRODUCTION – PRINCIPLES & THINKERS – Definition – Features of Management – Administration Vs Management – Management a Science or Art? – Management a Profession – Management Principles & their nature – University of Management Principles – The functional approach to Management – Management function and Management levels – Pioneers of Modern Management – F.W. Taylor – Elton Mayo – M.P. Follet.

Unit – II

PLANNING AND DECISION MAKING – Meaning – Characteristics – Planning Process – Types of Plans Objectives – M.B.O. – Policies – Procedures – Methods – Rules – Programmers – Budgets – Forecasting – Elements – Techniques – Decision Making – Definition – Nature & Types of Decisions – Process.

Unit – III

ORGANISING – Meaning – Principles of Organization – Depart mentation – It's Methods – Span of Management – Forms of Organization structure – Concepts of Authority and responsibility – Delegation &Decentralisation of Authority – Centralization Vs Decentralization – Advantages & Drawbacks – Line & Staff relation.

Unit – IV

STAFFING – Meaning – Manpower Planning – Aim and Objectives – Steps in Manpower Planning – Recruitment – Selection – Training – Performance Evaluation – Executive Development.

Unit – V

DIRECTING & CONTROLLING – Definition – Principles & Elements of Direction – Importance of Controlling – Steps in Controlling – Essentials of Control – Techniques.

Text Books :
1. L.M. Prasad – Principles & Practices of Management – Sixth Edition – 2001 – Sultan Chand And Sons.

Reference :
1. Herold Koontz, Weihrich – Management – Ninth Edition – 1988 – McGraw Hill Book co.
2. James A.F.Stoners – R.Edward Freemen – Management – Fifth Edition – 1992 – Prentice Hall India (P) Ltd.
3. Govindarajan&Natarajan – Principles of Management – Prentice Hall India (P) Ltd.

OBJECT ORIENTED PROGRAMMING WITH C++

Unit – I

Introduction to C++ : Evolution of C++ - ANSI Standard – Object Oriented Technology – Disadvantage of Conventional Programming – Programming Paradigms – Preface to Object – Oriented Programming – Key Concepts of Object – Oriented Programming – Advantages of OOP – Object Oriented Languages.

Input and Output in C++ : Streams in C++ - Pre-Defined Streams – Buffering – Stream Classes – Formatted and Unformatted Data – Unformatted Console I/O Operations – Typecasting with cout Statement – Member Functions of Istream Class – Formatted Console I/O Operations.

C++ Declarations : Parts of C++ Program – Types of Tokens – Keywords – Identifiers – Dynamic Initialization – Data Types in C++ - Basic Data Type – Derived Data Type – User – Defined Data Type – The void Data Type – Type Modifiers – Wrapping Around – Typecasting – Constants – Constant Pointers – Operators in C and C++ Precedence of Operators in C++.

Unit – II

Control Structures : Decision – Making Statements – The if-else Statements – The jump Statement – The goto Statement – The break Statement – The Continue Statement – The switch case statement – Loops – The for Loop – Nested for Loops – The While Loop – The do-while Loop.

Functions in C++ : The main() Function – Parts of Function – Passing Arguments – L Values and R Values – Return by Reference – Default Arguments – Inline Functions – Function Overloading – Principles of Function Overloading – Library Functions.

Unit – III

Classes and Objects : Classes in C++ Declaring Objects – The Public Keyword – The Private Keyword – The protected keyword – Defining Member Functions – Data Hiding or Encapsulation – Classes, Objects and Memory – Static Member Variables and Functions – Static Object – Array of Objects – Objects as Functions Arguments – Friend Functions – Recursive Member Function – Local Classes – The main() as a Member Function – Overloading Member Functions – Overloading main() Function.

Constructor and Destructors : Characteristics of Constructors and Destructors – Applications with Constructors – Constructors with Arguments – Overloading

Constructors – Constructor with Default Argument – Copy Constructors – The const Object – Destructors – Calling Constructor and Destructors – Qualifier and Nested Classes – Anonymous Objects – Recursive Constructor – Local vs Global Object.

Unit – IV
Operator Overloading and Type Conversion : The Keyword Operator – Overloading Unary Operators – Operator Return Type – Constraint on Increment and Decrement Operators – Overloading Binary Operators – Type Conversion – Rules for Overloading Operators.
Inheritance : Access Specifiers and Simple Inheritance – Types of Inheritances – Single Inheritance – Multilevel Inheritance – Multiple Inheritance – Virtual Base Classes.Pointers and Arrays : Pointer Declaration - Pointer to Class – Pointer to Object – The this Pointer – Base Classes – Arrays – Characteristics of Arrays – Arrays of Classes.

Unit – V
C++ and Memory : Memory Models – The New and delete Operators – Dynamic Objects.Binding, Polymorphism and Virtual Functions : Binding in C++ - Virtual Functions – Rules for Virtual Functions – Pure Virtual Functions – Abstract Classes – Working with Virtual Functions.Applications with Files : File Stream Classes – Steps of File Operations – Finding End of a File – File Opening Modes – File Pointer and Manipulators – Manipulators with Arguments – Sequential Read and Write Operations-Binary and ASCII Files – Random Access Operations.

Text Book :
1. Ashok N.Kamthane, "Object Oriented Programming with ANSI and Turbo C++, Pearson Education, New Delhi.

Reference :
1. Herbert Schildt, "C++ : The Complete Reference" Tata McGraw Hill Publishing Company Limited, New Delhi.
2. E. Balagurusamy, "Object- Oriented Programming C++", Tata McGraw Hill Publishing Company Limited, New Delhi.
3. D. Ravichandran, "Programming with C++", Tata McGraw Hill Publishing Company Limited, New Delhi.

OBJECT ORIENTED PROGRAMMING WITH C++ - LAB

1. Write a C++ Program to declare all members of a class as public. Access the element using objects.
2. Write a C++ Program to print sum of sin series.
3. Write a C++ Program to calculate simple interest. Hide the data element of the class using private keyword.
4. Write a C++ Program to show difference between static and non-static member variables.
5. Write a C++ Program to declare array of objects. Initialize and display the contents of array.
6. Write a C++ Program to access private data using non-member function. Use friend function.
7. Write a C++ Program to create a class MAT of size of m x n. Define the matrix operations addition, subtraction, input and output by overloading +,-,>> and << operators respectively.
8. Write a C++ Program to create an abstract class 'Queue'. Create two subclasses 'StaticQ' and 'DynamicQ'. Class 'Queue' contains member functions insert, delete, create, isempty, isfull and display functions. DynamicQ overrides insert to change size of queue at runtime if queue is already full.
9. Write a C++ Program to overload member function of class.
10. Write a C++ Program to invoke constructor and destructor.
11. Write a C++ Program that overload + & relational (suitable) operator to perform the following operations.
    i) Concatenation of two Strings
    ii) Comparison of two Strings
12. Write a C++ Program to create multilevel inheritance. Create classes A1, A2 and A3.
13. Write a C++ Program to derive a class student from multiple base classes mark and sports. Print the details of the student including percentage.
14. Write a C++ Program to show hierarchical inheritance.
15. Write a C++ Program to declare an object and pointer to the class. Invoke member functions using pointer.

16. Write a C++ Program to create a class employee that contain two functions getdata() &putdata(). Create array of objects for the specified class and read the values using getdata(). Print the values using putdata().
17. Write a C++ Program to print the details vehicle using virtual function. Create a class vehicle and have a virtual function make(). Create another class two wheeler is inherited from vehicle class that invoke the virtual function make(). Print details of two wheeler. Create another class four wheeler is inherited from the two wheeler that invoke virtual function make(). Print details of four wheeler.
18. Write a program to read a line of text and replace one word with another word.
19. Write a C++ Program function template for finding the minimum value contained in an array.
20. Write a C++ Program to perform read and write operations with objects using write() and read() functions.

ACCOUNTANCY

Unit – I

Accounting – Definition and functions – Accounting Conventions Concepts – System of Accounting – Rules for Double Entry System of Book Keeping – Preparation of Journal and Ledger Accounting.

Unit – II

Subsidiary Books – Purchase Book – Sales Book – Purchase Return Book – Sales Return Book – Cash Book – Bank Reconciliation Statement (BRS).

Unit – III

Preparation of Trail Balance – Final Accounts – Manufacturing, Trading, Profit and Loss Accounts and Balance Sheet with Simple Adjustments.

Unit – IV

Depreciation – Methods of Depreciation – Straight Line Method and Diminshing Balance Method. Cost Accounting – Elements of Costing – Type of Costing – Preparation of Simple Cost Sheets – Labor Cost Accounting.

Unit – V

Nature and Objectives of Business – Internal Organizational structure of Business – Unit Marketing Management and its Functions – Production Management – Objectives and Functions – Quality Control, inventory control – Personnel Management, Objectives and Functions.

Text Book :
1. T.S. Greewal, Introduction To Accountancy, S. Chand & Company, New Delhi.
2. Jain &Narang, Cost Accountancy, Kalyani Publishers, Ludhiana.
3. Y.K. Bjusan, Business Organization And Management.

Reference Book :
1. Khan and Jain "Financial Management" Tata McGraw Hill.

ACCOUNTANCY TALLY LAB LIST

1. Specimen journal entries of Bills of exchange.
2. Model journal entries of joint venture and books of accounts.
3. Bank reconciliation statements.
4. Comparison of Pass Book and Cash Book.
5. Prepare an average due date.
6. Creation of Sales day book
7. How to create Balance Sheet.
8. Create a Sales invoices.
9. Create a Company as "Sagar Industries Ltd." In tally with inventory management.
10. Create the Trail Balance and Balance Sheet of "Sugar Industries Ltd".
11. Show the Cash Book and Bank Book for the company.

Skill Based Subjects are Practical oriented. One hour should be assigned for tutorial class and three hours of practical to do the given practical list.
Sample should be provided to the students for designing the given list.

Subject : DTP

Page Maker
1. Design of ID Card (3" * 2").
2. Design of Visiting Card (3.5" * 2").
3. Design of an attractive invitation Card (5.5" * 8").
4. Design Letter Pad. (7.5" * 9").
5. Preparation of a small booklet with 6 pages (3.5" * 4.5").
6. Design a hand bill (5.5" * 8.5").
7. Create a advertisement for your college.
8. Design your college progress card.
9. Create a receipt bill with counter foil.
10. Create a graph/pie chart.

Photoshop
1. Design of a brochure for an institution.
2. Seasonal Greeting Card.
3. Transporting an image from one background to another.
4. Design a web page poster (1004 * 750)/text book cover page.
5. Crop and image/rotate an image.

CorelDraw
1. Create an object and fill with multiple colours.
2. Design a book cover.
3. Create a frame and enter a paragraph with different formats of text.
4. Export any five image in a single applications.
5. Design page frame by inserting image and objects.

INTRODUCTION TO INFORMATION TECHNOLOGY

Unit – I

Information Technology Basics : Introduction, Information, Technology, Information Technology, Present Scenario, Role of Information Technology, Information Technology and Internet, Careers in IT industry. Computer Organization and Architecture : Central Processing Unit, Inside a Computer, Data representation in Computer, Coding Schemes.

Unit – II

Computer Memory and Storage Introduction, Memory Hierarchy, Random Access Memory (RAM), Read Only Memory (ROM), RAM, ROM and CPU Interaction, Types of Secondary Storage Devices, Magnetic Tape, Magnetic Disk, Types of Magnetic Disk, Optical Disk, type of optical disks.

Unit – III

Input Output Media : Introduction, types of input devices, types of output devices. Multimedia Essentials : Introduction, Multimedia : Definition, Building Blocks of multimedia, multimedia system, multimedia applications, Virtual reality.

Unit – IV

The Internet : Introduction Evolution of Internet – Basic Internet Terms – Getting Connect to Internet – Internet Applications – Data over Internet. Internet Tools : Introduction – Web Browser – Browsing Internet using Internet Explorer – E – Mail – Search Engines – Instant Messaging.

Unit – V

Emerging Trends in IT : Introduction, E-Commerce – Electronic Data Interchange – Mobile Communication – Bluetooth – Global Positioning System – Infrared Communication – Smart Card – Imminent Technologies.

Text Books :

1. Introduction to Computers and Information Technology, D. Glory Ratna Mary, S. Selvanayahi, V. Joseph Peter, Shekina Publications.

Reference Books :

1. Introduction to Information Technology ITL Education Solutions Limited, Pearson Education.
2. Fundamentals of Information Technology By Alexis Leon & Mathews Leon Vikas Publication – New Delhi.

JAVA PROGRAMMING

Unit – I

The Genesis of Java - Overview of Java – Development of Java – JDE – Data Types – Variables – Arrays – Type Conversion and Casting – Operators – Precedence – Control Statements.

Unit – II

Introduction Classes – Objects – OOPs Concepts – Declaring Objects – Introducing Methods – Constructors – Overloading – this keyword – Garbage Collection – finalize () method – More Examples.Objects as parameters – returning objects – recursion – Access Control – Static – Final – Nested and Inner Classes – Command Line Arguments – Sample Programs.

Unit – III

String and String Buffer Class Inheritance – Types of Inheritance – Method Overriding – Dynamic method Dispatch – Abstract Class – Final with Inheritance – More Examples.Packages – Access Protection – Importing Packages – Interfaces – Implement and Applying Interfaces – Sample Programs.

Unit – IV

Exception Handling – Exception Types – Our Own Exception – Handling Exception – Java's Built in Exception – Thread Class and Runnable Interface – Extending Thread – Creating Multiple Threads – isAlive () and join() methods – Synchronization – suspend (), resume () and stop() threads – Example Programs.

I/O packages – Input Stream – Output Stream – File Input and Output Stream – Applet Class – An Applet Skeleton – Simple Applet Display Methods – Example Programs.

Unit – V

Event Handling – Delegation Event Model – Event Classes – Sources of Events – Event Listener Interface – AWT Controls – Labels – Buttons – Check Boxes – Check Box Group – Lists – Scroll Bar – Text Area – Menu Bars and Menu – Layout Managers – Examples.

Text Book :

1. Herbert Schildt, "Java 2" Fourth Edition, Tata McGraw – Hill Publishing Company Ltd, New Delhi.

Reference :

1. Peter Norton and William Stanek, "Guide To Java Programming", Techmedia, New Delhi.
2. Martin RineHart, "Java Database Development" Ed – 1998, Tata McGraw – Hill Publishing Company Ltd, New Delhi.

JAVA PROGRAMMING

1. Create a Simple program with your own detail.
2. Use Overload   i) Method   ii) Constructor
3. Create a Program for object as parameters and returning objects.
4. Create a program with abstract class.
5. Create a program using Multilevel Inheritance.
6. Develop a Program using Interface.
7. Create and Import Package (Minimum Three Classes)
8. Create Our Own Exception for Employees.
   (Constraints 1.Age > 18 and < 58 2.Dept No. 10 || 20 || 30 || 40)
9. Suspend, Resume and Stop Threads (Minimum 3 Threads)
10. Read and Write the content of a file using I/O Packages.
11. Display a Simple Banner Applet.
12. Event Handling Mechanism for Keyboard and Mouse .
13. Create a Login form.
14. Simple Web Presentation using HTML Tag (Use 3 Pages)
15. Create a Program for Moving Ball (Start and Stop)
16. Create a Simple Java Database with 4 fields.

MOBILE COMPUTING

Unit – I

Introduction Mobility of Bits and Bytes – Wireless The Beginning – Mobile Computing – Dialogue Control – Networks – Middleware and Gateways – Application and Services – Developing Mobile Computer Applications – security in Mobile Computing – Standards – Why is it necessary – Standard bodies. MOBILE COMPUTING ARCHITECTURE : History of Computers and Interneet – Architecture for mobile computing –Three–tier architecture – Design considerations for mobile computing– Mobile Computing through Internet – Making exiting applications mobile enabled.

Unit – II

MOBILE COMPUTING THROUGH TELEPHONY : Evaluation of telephony – Multiple access procedure – Mobile Computing through telephone – IVR Application – Voice XML – TAPI.

Unit – III

EMERGING TECHNOLOGIES : Blue Tooth – RFID – WiMAX – Mobile IP – Ipv6 – Java Card. GSM : Global System for mobile communication – GSM Architecture – GSM Entities – Call routing in GSM – PLMN Interfaces – GSM Addresses and Identifiers – Network Aspects in GSM – GSM Frequency allocations – Authentications and Security – SMS.

Unit – IV

GPRS – GPRS and packet data network – GPRS network architecture – GPRS network operations – Data Services in GPRS – Application for GPRS – Limitations – Billing and Charging WAP : MMS – GPRS Applications.

Unit – V

CDMA and 3G : Spread spectrum technology – Is 95 – CDMA vs GSM – Wireless Data – Third Generation networks – Applications on 3G WIRELESS LAN : Wireless LAN Advantages – IEEE 802.11 standards – Architecture – Mobile in Wireless LAN – Deploying wireless LAN – Mobile adhoc networks and sensor networks – Wireless LAN Security – WiFivs 3G.

Text Books :

1. Mobile Computing, Asoke K Talukder, Roopa R Yavagal, TMH, 2005.

WIRELESS APPLICATION PROTOCOL

Unit – I

A Brief History of WAP :Orgins – The WAP Forum – Forum Members – Why WAP? The Great Convergence – WAP Devices Characteristics – The Need For WAP – An Overview of WAP : WAP in Action – Web Transaction Model – WAP Transaction Model – WAP Architecture – A Closer Look at WAE.

Unit – II

The WAP Application Environment : The Micro browser – WML – WML Features – WML Script – WAP Client Software, Hardware, and Web Sites : OEM Microbrowsers – Consumer Microbrowsers – WAP Devices – Consumer WAP Sites.

Unit – III

WAP Gateways : A note on Terminology – WAP Gateway Services – Security – WAP's Security – Some WAP Profiles : exo – net – MainFrieght – Sky City Hotels – A consumer Profile – What WAP Does Well – Implementing an Enterprise WAP Strategy – The Future of WAP : Problems with WAP – Solving These Problems – The Next Generation.

Unit – IV

Document Status – Reference – Definitions and Abbreviation – WML and URLs – WML Character Set – WML Syntax – Core WML Data Types – Events and Navigation – The State Model.

Unit – V

The Structure of WML Decks – User Agent Semantics – WML Reference Information – A Compact Binary Representation of WML – Static Conformance Statement.

Text Books :

1. Steve Mann, Scott Sbihli, "The Wireless Application Protocol", Wiley India Pvt. New Delhi.

Reference :

1. Dale Bulbrook, "WAP : A Beginner's Guide", Tata McGraw – Hill Publishing Company Limited, New Delhi.
2. SandeepSinghal, Thomas Bridgman, LalithaSuryanarayana, Daniel Mauney, JariAlvinen, David Bevis, Jim Chan, Stefan Hild, "WAP-The Wireless Application Protocol, Writing Applications for the Mobile Internet", Pearson Education Pvt. Ltd., Delhi.

INTERNET SECURITY

Unit – I

Introduction : Why require a security? – Picking a Security Policy – Strategies for a Secure Network – The Ethics of Computer Security – Security Threats and levels – Security Plan (RFC 2196).

Unit – II

Classes of Attack : Stealing Passwords – Social Engineering – Bugs and Backdoors – Authentication Failures – Protocol Failures : Information Leakage – Exponential Attacks – Viruses and Worms – Denial – of – Service Attacks – Botnets – Active Attacks.

Unit – III

Computer Security – What are Viruse?, Trojan Horse, Worms? – How to protect the computer against virus – What is the Structure of Viruse?

Unit – IV

Firewalls and Proxy Servers – Kinds of Firewalls : Packet Filters – Application – Level Filtering – Circuit – Level Gateways – Dynamic Packet Filters – Distributed Firewalls – What Firewalls Cannot Do – Filtering Services : Reasonable Services to Filter – Digging for Worms – Packet – Filtering – Implementing Polices (Default allow, Default Deny) on Proxy.

Unit – V

Cryptography – Introduction to Basic Encryption and Decryption, Diffie – Hellman Key Exchange – Concept of Public Key and Private Key – Digital Signatures.

Text Book :
1. William R. Cheswick, Steven M. Bellovin and Aviel D. Rubin, "Firewalls and Internet Security: Repelling the Wily Hacker", Second Edition, Pearson Education.

Reference :
1. Speed, "Internet Security : A Jumpstart For Systems Administrators And IT Managers", Elsevier India.
2. BehrouzForouzan, "Cryptography And Network Security E/2", Tata McGraw Hill Education.

OPERATION RESEARCH AND NUMERICAL ANALYSIS

Unit – I

Transportation Problem : Introduction – General Transportation Problem – The Transportation Table – Formulation of the Transportation Problem – Triangular Basis in a Transportation Problem – Finding an initial basic feasible solution : Northe West Corner rule – Least – Cost Method or Matrix Minima Method – Vogel's Approximation Method.

Unit – II

Assignment Problem : Introduction – Mathematical formulation of the problem – The Assignment method – The Travelling Salesman Problem.

Unit – III

Sequencing Problem : Introduction – Problem of Sequencing – Basic Terms used in sequencing – Processing n jobs through two machines – Processing n jobs through k machines – Processing 2 jobs through k machines.

Unit – IV

Simultaneous equations – Back substitutions – Gauss Jordan elimination method – Calculation of inverse of a matrix – Gauss – Seidel iteration method.

Unit – V

Difference Operators – Newton's interpolation formula – Lagrange's interpolation formula – Divide difference interpolation – Inverse interpolation.

Text Books :

1. KantiSwarup, P.K. Gupta and Man Mohan, "Operations Research", Sultan Chand A Sons, New Delhi – Unit I, II and III.
2. S. Arumugam, A. ThangapandiIssac and A. Somasundaram, "Numerical Analysis", New Gamma Publishing House, Palayamkottai – Unit IV & V.

Reference :

1. T. Sankaranarayanan, Joseph A. Mangaladoss, "Operations Research", Suja Publishing House, Tirunelveli.
2. R. Panneerselvam, "Operations Research", 2nd Edition, PHI Learning (2011), New Delhi.
3. Vasishtha, "Numerical Analysis", Krishna Prakashan Media (P) Ltd. (2010), Meerut.

ACCOUNTANCY TALLY LAB LIST

1. Specimen journal entries of Bills of exchange.
2. Model journal entries of joint venture and books of accounts.
3. Bank reconciliation statements.
4. Comparison of Pass Book and Cash Book.
5. Prepare an average due date.
6. Creation of Sales day book
7. How to create Balance Sheet.
8. Create a Sales invoices.
9. Create a Company as "Sagar Industries Ltd." In tally with inventory management.
10. Create the Trail Balance and Balance Sheet of "Sugar Industries Ltd".
11. Show the Cash Book and Bank Book for the company.

ANIMATION APPLICATIONS

Skill Based Subjects are Practical oriented. One hour should be assigned for tutorial class and three hours of practical to do the given practical list.
Sample should be provided to the students for designing the given list.

Subject : Animation Applications

FLASH
1. Create a Simple Presentation.
2. End a Movie Clip using Script.
3. Start a graphic animation at a specific frame.
4. Text animation using motion tweening.
5. Activate a new window/page using buttons.
6. Bouncing ball with sound effect.
7. Create a scrolling gallery in a page.

DREAMWEAVER
1. Creating a New Dreamweaver Site.
2. Adding Images, Text and Links.
3. Flash Buttons and Flash Text.
4. Creating a Rollover Images.
5. Creating Tables – FAQs.
6. Designing Web Pages with Frames.
7. Inserting and Formatting a Table in Standard View.
8. Design navigation Bar with Images.

BASIC PROGRAMMING DESIGN

Unit – I

Introduction – Algorithms, Flowcharts, Types of Programming Languages, Selection of Programming Languages, Program Writing Debugging.

Unit – II

Flow Charts – Elementary Concepts – Introduction, Kinds of flow charts, symbols used in flow charts, Advantages of flow charts, examples, constants and variables.

Unit – III

Flow Charting Simple Computation – Introduction, illustrating examples, conclusions.

Unit – IV

Subscripted Variables – Introduction, basic concepts of subscripted variables, one dimensional array, illustrating examples, conclusions.

Unit – V

Multidimensional Arrays – Introductions, definitions, matrix operations, illustrating examples, beyond two dimensions, conclusions – Introduction to File Structure.
Introduction, Concept of data files, Types of Data Files, File Organization methods, File Processing activities, Conclusions.

Text Book :
1. Basic Programming Design, D.S. Arul Selvan& A.A. RegiesonSylum Shalom Publications, Green St, Nagercoil.

Reference :
1. Insight into Flowcharting Raj K. Jain By S. Chand & Company Ltd.