
UNIT 2: **Marketing knowledge**: the electronic marketing information system, marketing knowledge, source 1: Internal records, Source 2: Secondary data, Source 3: Primary data, Marketing databases & warehouse, data analysis & distribution.


UNIT 4: **e-Marketing communication**: integrated marketing communication, marketing communication strategies; internet advertising, public relation activities on net, sales promotion on the internet, CRM: CRM process, CRM-SCM integration, CRM Benefits.


References:
1. "e-Marketing" by Judy Strauss & Raymond Frost (PHI publications).
UNIT 1 - Introduction to Data Mining: Data Mining, features, business context, technical context, approaches to data mining. Types of Data Mining: Direct & Undirected, Virtuous Cycle.

UNIT 2 - Data Mining Process & Technique: Data Mining Techniques: automatic, cluster detection, Decision trees, Neural Networks, Data Mining Methodologies: Conventional System Development, waterfall process, Rapid Prototyping.

UNIT 3 - Introduction to Data Warehouse: Data warehousing concepts, Goals & objectives, Issues involved in Data Warehousing. The three C's of Data Warehousing: Commitment, Completeness & Connectivity, OLAP, Types of Data Warehouse.

UNIT 4 - Stages of the project: Planning stage: Justifying the data warehouse, obtaining user buy-in, overcoming Resistance to the Data Warehouse, Developing a project plan; Data Warehouse Design approaches. Architectural stage: Process architecture, Introduction, Load manager, Query manager, Detailed Information, Summary Information, Metadata, Data Marting.

UNIT 5 - Testing the Data Warehouse: Introduction, developing the test plan, testing backup recovery, testing the operational environment, testing the database, testing the application, Logistics of the test, Security - Requirements, performance, impact of security, security impact on design.

References:
1. "Data Warehousing" by Amitesh Sinha.
2. "Data Warehousing in the real world" by Sam Anahory & Dennis Murray.
Flat Panel Displays: Plasma panels, liquid crystal displays
Input Devices: Digitizing tables, mouse, touch panels, image scanners.

UNIT 2 - Drawing
Geometry: Line drawing and 2D Transformations: A simple line drawing algorithm, use of homogeneous coordinate systems, translation, scaling, rotation, mirror reflection, rotation about an arbitrary point, zooming and panning, parametric representation of a line segment.
Curve Drawing: Parametric representation, cubic Bezier and B-Spline curves (no derivation), conditions for smoothly joining curve segments.

UNIT 3 - Graphic Operations:
Clipping: Window port and view port, elimination of totally visible and totally invisible lines with respect to rectangular window using line end-point codes, Explicit line clipping algorithm, Sutherland-Cohen algorithm, Mid-point subdivision algorithm. Filling: Stack based and queue-based seed fill algorithms, scan line seed-fill algorithm.

UNIT 4 - 3D Graphics:
Transformations: Right Handed coordinate system with vertical y-axis, transformation matrices for translation, scaling, rotation around axis.
Parallel projection: multi views front, top and side views, oblique view.
Perspective projection: Transformation matrix to yield one vanishing point perspective view with viewpoint lying on z-axis, effects of translating the object.
Hidden Surface Removal: Back face removal, painter's algorithm.

UNIT 5 - Multimedia:
Concept of hypertext/hypermedia, applications (Education, video conferencing, training, entertainment, electronic encyclopedias) multimedia hardware (CD-Rom, Audio speakers, sound cards, video cameras, scanners, MIDI), Introduction to image formats (Gif, Tif, Jpeg, BMP etc.), Introduction to sound formats (wav, au etc.), video formats (MPEG, AVI).

References:
2. "Computer Graphics Principles and Practice": Foley Van Dam, Feiner Hughes, Addison-Wesley Publishing Company
UNIT 1 - Meaning & Objects of Accounting Concepts & Conventions, Accounting Equation, Rules of Journalizing, Cash Book, Ledger Posting, Preparation of Trial Balance

UNIT 2 - Trading and P/L Account, Balance Sheet with Adjustments relating to Closing Stock, Outstanding Expenses, Prepaid Expenses, Accrued Income, Depreciation, Bad Debt, Provision for Discount on Debtors & Creditors, Provision for Tax

UNIT 3 - Inventory Pricing, FIFO & LIFO Methods, Simple Problem of Fund Flow Statements, Cost-Volume Profit Analysis

UNIT 4 - Standard Costing, Computation of Material & Labor Variances, Budgetary Control, Preparation of Cash Budget & Flexible Budget

UNIT 5 - Management Control & its Characteristics, Goals and its Strategies, Structure and control, Responsibility Centres & Control Centres, Concept of Responsibility Centres, Revenue Center, Profit Center and Investment Center, Transfer Pricing & Responsibility Reporting

References:

305MECOM -- JAVA PROGRAMMING

UNIT 1-Overview of JAVA Programming:
History of JAVA, features of java, how it is differ from C & C++, java program structure, java statements, JVM, command line arguments

Expression & Operator:
Data types, literals, variables, declaring a variable, dynamic initialization, Arrays, Operators - relational, Arithmetic, logical, assignment, increment & decrement, conditional operator, Bitwise operator, special operator, arithmetic expression, evaluation of expression.

Decision making & Branching:
Control statements—IF, Switch, Loops, Break, Continue, Return.

UNIT 2-Basic concept of OOPS:
Classes, methods, creating instance & class variable, accessing class member, Constructor, Methods overloading, Method overriding, Static member, final classes, finalizer method, Abstract method & classes, visibility control, Interfaces: Defining interfaces, extending interfaces, implementing interfaces, accessing interfaces, Variables, Package - system package, using system package, creating package, accessing a package, adding a class to a package, Hiding classes.

UNIT 3-Exception Handling & Multithreaded Programming:
Exception Handling— Fundamental, types, uncaught exception, using try and catch, multiple catch, nested try, throw, throws, finally, Java thread model, creating threads, extending thread class, stopping & blocking a thread, Life cycle of thread, thread exception, thread priority, synchronization—implementing and runnable interface, inter thread communication, multithreading.

UNIT 4-Developing web-based program:
What is an applet, applet architecture, applet life cycle, a simple applet program, AWT-Working with Graphics, line, rectangles, ellipses, circles, arcs, polygons Working with colors, Working with fonts.

UNIT 5 Advance Java
Stream and Files. JDBC: JDBC architecture, JDBC Basics, establishing a connection, JDBC Statements.

Reference:
1. Programming with java, A preimer by "E. Balaguruswamy".
2. "Advance programming in Java" by V.K.Jain & Hemlata
3. JAVA 2 platform in 21 DAYS by "Lamay and Cadenhead" by Techmedia pub.
4. The complete reference JAVA 2 by "Patrick Naughton & Herbert Schidt".
UNIT 1: **Introduction**: Data & Data Structure, Primitive & Non-Primitive data type, types of data structure, Basics of C++, Algorithm, Specification.

UNIT 2: **Arrays**: Abstract data types & the C++ class, Types of array: One-dimensional, two-dimensional, representation of arrays in memory, various operations performed on array; Matrix: addition, multiplication, transpose; definition of sparse matrix.


UNIT 4: **Linked List, Searching & Sorting**: Linked List : Definition, Memory representation of linked list, operation : traversing, insertion, deletion; doubly linked list, various operations on it, Header linked list ; Grounded & Circular. Searching & Sorting : Linear & Binary Search, Bubble sort, Quick Sort, Selection Sort, Insertion Sort, Merge Sort.

UNIT 5: **Trees & Graphs**: Trees : Terminology : height, depth, order, degree, parent, sibling, forest; Representation of trees, Binary trees, Representation of binary tree, traversal : Preorder, Postorder, Inorder ; Complete Binary tree. Graph : related definition, graph representation - adjacency matrix, adjacency list, adjacency multilist, Types of graph, graph traversal : Depth-First -Search, Breadth-First-Search, Shortest path algorithm : Kruskal, Dijkstra algorithm.

**Reference**: