|| अंतरी पेटवू ज्ञानज्योत ||

North Maharashtra University,
Jalgaon

Revised Syllabus for

Master Degree in Computer Management

(M.C.M.)

(Semester-III & IV)

w.e.f. July, 2002

1. The name of the programme shall be Master's Degree Course in Computer Management (M.C.M)

2. The knowledge and skills required to plan design and build complete Application Software Systems are highly valued in all industry sectors including business, health, education and the arts. The basic objective of the Master's Programme in Computer Management (MCM) is to provideto the country a steady stream of competent young men and women with the necessary knowledge, skills and foundations for acquiring a wide range of rewarding careers into the rapidly expanding world of information technology.

3. The Job Opportunities are:

a) Many graduates begin their careers as junior programmers and after some experience are promoted to grammers, systems analysts, programmer/analystes. Others seek entrepreneurial roles in the computer world as independent suppliers of systems and equipments, Career opportunities exist in such areas as management, software and hardware sales, technical writing, training others on computers, consulting, software development and technical support.

b) Application areas include transaction processing (such as order processing, airline reservations, banking ststems), accounting function, sales analysis, games, Forecasting and simulations database management, desion support and data communications.

4. Speecific elective course to be offered in functional areas have to depend on student prefer ences, faculty availability and needs of the user systems in the region in which the educational instituation is located.

5. a) The first year of the program is a mix of computerrelated and general business courses. The computer-related course use microcinouters to introduce standard techniques of programming, the use of software packages including word processors, spreadsheets and databases ; systems analysis and design The general business courses include the functional areas of management like accounting, sales, purchase, inventory and production. The course world emphasise the study and creation of business applications, rather then mere programming.

b) In the second year, students are exposed to system development in the information processing environment, with special emphasis on management information systems and software Engineering for small and medium computer systems. Also, exposure to microcomputer technology micro-based systems design and micro applications software including networks and graphical user interface system is provided.

6. Duration : The M.C.M. programme will be a full time two year's master's Degree course in computer management.

7. The new curricula would focus on imparting , skills, rather than knowledge to students. In other words, less therory, more practicals.

6. The Institutes should organise placement for the MCM students, by interacting with industries and software consultancy houses in and around the region in which the educational institution is located.
9. Intake : IN each class, not more than 60 students will be admitteed.

II) ELIGIBILITY FOR ADMISSION
Graduates prossessing 45% or more marks of any faculty of any statutory university shall be eligible for admission to the M.C.M course.

III) NUMBER OF LECTURES AND PRACTICALS
Lectures and practicals should be conducted as per the scheme of lectures and practicals.

IV) PRACTICAL TRAININGF AND PROJECT WORK
At the end of the second year of study, a student will be examined in the course "Project Work".
a) Project work should be done individually
b) Students should take guidance from an internal guide and prepare a project report on "project work " in 2 copies to be submitted to the Director of the Institue by 31st December.
c) The project should contain an introduction to the project, which should clearly explain the project scope in detail. Also , Data Dictionary, DFDS ,ERDs, File designs and a list of outpur reports should be included.
d) The project work should be of such a nature that it could prove useful or be relevant from the commercial management angle.
e) The project report will be duly assessed by the internal guide of the subject and marks will be communicated by the Director to the University after receiving the seat numbers from the University along with the marks of the internal credit for theory and practicls to be communicated for all ohter courses.
f) The project report should be prepared in a formate prescribed by the University which also specifies the contents and the method of presentation.
g) The project work will carry 40 marks for internal assessment and 60 marks for external viva. The external viva shall be conducted by two external examiners.
h) Project work can be carried out in the Institute or outside with prior permission of the Institute.
i) The external viva-voce examination for project work would be held in march/April of the second year of study, by a panel of two external examiners.

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V) ASSESSMENT
1. The final total assessement of the candidate is made in
terms of an internal assessment and an external assessment
for each course.
a) For each paper, 40 marks will be for internal assessment
and 60 marks for year end examination (external
assessment) unless otherwise stated.
b) The division of the 40 marks allotted to internal
assessment of theory papers shall be on the basis of tutotial
work and written test.
c) The practical examination for papers No. 106,206,306 and 406
    shall be conducted by two external examinor appointed by the
University which shall carry 60 marks and the internal assesment
of practical examination shall be conducted by the institute
which shall carry 40 marks.
d) The internal marks will be communicated to the university
at the end of each semester but before the semester
examination. These marks will be considered for the
declaration of the results.
e) In theory papers there shall be in all 8 questions out of
which any five question shall be attempted by the candidate. For
MIS Papers minimum weightae of 20 marks be given for case studies
and 40 marks theory question be given.

VI) EXAMINATION
Examinations shalle be conducted at the end of the semester
i.e. during April/May and also in October/November
VII) STANDARD OF PASSING
a) Every candidate must secure 40% marks in each head of
passing and in aggregate 50 % mark
b) The passing marks for external examination will thus be
24 out of 60 and for internal examination 16 out of 40 .

VIII) MEDIUM OF INSTRUCTION
The medium of Instruction will be English.

IX) CLARIFICATION OF SYLLABUS
It may be necessary to clarify certain points regarding the
course.The B.O.S shall study and clarify any difficulties
from the Institues.

X) REVISION OF SYLLABUS
 As the computer technology is changing very fast .
revision of the syllabus should be considered every 3 years.

XI) TEACHING AND PRACTICALS SCHEME
 Each session will be of 1 hours duration.

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MCM Equivalence

Old Paper	New paper
101 Elements of IT	1.1 Elements of IT
102 FoxPro	1.2 Visual FoxPro
103 C programming	1.3 Object Oriented programming in C++
104 Windows and MS office	1.4 Internet fundamentals & Web Tools
105 Financial accounting	2.2 Accounting Information System
201 Software Engineering	1.5 Software Engineering
202 FoxPro II	1.2 Visual FoxPro
203 C Programming II	1.3 Programe In Java
204 Financial Accounting and Application	2.2 Three more chances be given
205 PPM	3.3 Essentials of E-Commerce
301 DBMS	3.1 DBMS
302 MIS	4.1 MIS
303 Quantitative techniques I	3.4 Quantitative techniques
304 Data Structure	2.3 Data Structure
305 Oracle D2K	2.4 Oracle D2K
401 Unix	2.1 Linux
402 Business Application	3.2 Business Application
403 Quantitative techniques II	3.4 Three more chances be given
405 Visual Basic	3.5 Visual Basic

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NORTH MAHARASHTRA UNIVERSITY,JALGAON
MCM COURSE STRUCTURE

SEMESTER-III AND IV

(With effect from Ji ly,2002)

SEMESTER-III

3.1 Database Management System
3.2 Business Application
3:3 Essential of ERP AND ECRM
3.4 Quantitative Techniques
3.5 Visual Basic
3.6 LAB based on 3.1 and 3.5

SEMESTER-IV
4.1 Management Information System
4.2 Essential of E-commerce
4.3 SQL Server
4.4 Programming in Java
4.5 Project and Viva Voce
4.6 LAB based on 4.3 and 4.4

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MCM
SEMESTER-III

PAPER –3.1 Data Base Management System

(With effect from July,2002)

Basic Concepts :-

Database & Database users, Characteristic of the Database, Database system. Concept & Architecture, Date Models, Schemas & Instance, DBMS Architecture & Data Independence, Data Base Language & Interfaces, Data-Modeling using the Entity-Relationship Approach.

DATABASE SYSTEM ARCHITECTURE :-

Centralized system, client server system, Distributed system.

Relational Data Model :-

Relational Model Concept, Relational Model Constraints

SQL

A Relational Database Language, Date Definition in SQL, Specifying Constraints & Indexes in SQl, Specifying Constraints & Indexes in SQL.

Conventional Data Models & Systems :-

Network Data Model, DML for Network Model, Navigation within the Network model, Hierarchical Data Model .

Relational Data Base Design :-

Function Dependencies & Normalization for Relational Databases, Hierarchical Dependencies, Normal forms based on primary keys, (1NF, 2NF, 3NF, & BCNF) Lossless join & Dependency preserving decomposition.

DISTRIBUTED DATABASES

Concepts, Data Distribution Techniques.

Concurrency Control & Recovery Techniques

Concurrency control Techniques, Locking Techniques, Time stamp ordering, Granularity of Database items, Recovery Techniques, Recovery Concepts, Database backup and recovery from catastrophic failures.

Security & Integrity

Concepts of Object Oriented Database Management Systems.

References

Date C.J. "An Introduction to Database system" .
Dasai B., "An Introduction to Database Concepts", Galgotia Publications, New Delhi
Elmsari and Navathe, "Fundamental of Database System", Addison Wesley, New Delhi
KORTH, DATA BASEMANAGEMENT SYSTEM

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MCM
SEMESTER-III

PAPER-3.2: Business Applications

(With effect from July,2002)

Introduction to different Business segments:

- Manufacturing
- Trading
- Finance
- Services Industry

Flow of Information in various segments. Discussion about Input documents and Output reports in general for the above sectors.

1. PAYROLL SYSTEM
   Earning & Deduction Calculation Module
   Wage Pay Slip Processing
   Monthly Salary File
   Report Generation
   Preparation Of Annual Summaries
   Bonus Reporting
   Statutory Reports
   Costing and Management Reports

2. FIXED DEPOSIT SYSTEM :
   Types of Deposit schemes, category or Depositors Statutory provisions.
   Interest warrants and deposit register.
   Maturity and renewal procedures.
   Statutory and Management reports

3. LIBRARY MANAGEMENT SYSTEM
   Books Issue, Return, Fine Due analysis
   Reports- Authorwise, Bookwise , Subjectwise etc
   Video, Audio Cassette Library system, Reports

4. SALES ORDER PROCESSING
   Order Acceptance and recording
   Sales invoicing

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Sales analysis based on products, customers and terms

5. INVENTORY MANAGEMENT :

Purchase order processing
Stores Accounting
Stores transaction receipts, Issues and adjustment
Stock ledger
Inventory levels EOQ, ABC Analysis
Inventory control reports such as slow moving / non moving items
MATERIAL PLANNING
  Bill of material
  Computing Gross / net requirements

6. HOTEL MANAGEMENT

Departmental Organization of Hotel : such as room occupancies, room service, restaurant, house keeping, conferencing, exhibition, parties etc
Kitchen stores accounting
Reservation check in and check out
Service accounting and bill printing
Management Reports.

7. HOSPITAL MANAGEMENT

Departmental organization of hospital such as in-patient, out-patient, laboratories, pharmacy ,surgical rooms etc
Medical stores accounting
Registration ,shifting and discharge of patient
Service accounting and bill printing
Management Reports

Note : All the above systems Must consist of the following
  1. File Layout
  2. E-R Diagram
  3. Data Flow Diagram
  4. Input Design
  5. Output Design

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NORTH MAHARASHTRA UNIVERSITY, JALGAON
MCM SEMESTER-III

(With effect from July,2002)

PAPER-3.3 : ESSENTIALS OF ERP AND E-CRM

PART-1 INTRODUCTION
ERP : An Overview
Enterprise : an overview
Benefits of ERP
ERP & Related Technology
Business process Reengineering (BRP)
Data Warehousing
Data Mining
On-line Analytical Processing (OLAP)

PART – II ERP IMPLEMENTATION
H/W & S/w requirement
ERP Implementation Life Cycle
Implementation Methodology
ERP – Implementation – The Hidden Costs
Organizing the Implementation
Vendors, Consultants & Users
Contract with Vendors, Consultants & Employees
Project Mgmt. & Monitoring

PART-III – ERP
Business Modules In an ERP Package
Finance
Manufacturing
Human Resource
Plant Maintenance
Quality Management
Sales & Distribution

PART-IV – THE ERP MARKET
ERP Market Place
SAP AG
PeopleSoft
Baan Company

Oracle Corporation
ERP and Internet
ERP & E-Commerce
Case studies of ANY two Organisations
Customer Relationship management
Introduction to CRM – Definition of CRM
Marketing Automation – Enterprise Customer Management – Process –
Technology – CRM Areas – Components of CRM – Grouping of
Enterprises – Electronic CRM - Need for Electronic CRM – CRM's goal
satisfy Customer much more than their competitors Do- CRM Suppliers and
Customer Information convergence – Customer relationship management
demystified – E-CRM Architecture – Electronic CRM Application – The
Electronic CRM Market in India – Major tends of E-CRM – Global Scenario
for Electronic CRM – CRM Customer relationship Management Buzz –
CRM in Indian Banking – CRM Concept understanding the processes –
CRM is Interactive – Networking vendors Continue invasion of CRM
Market – Customer Relationship Portal – CRM utility in India – Quality
management move to the fore front – A Better, More Challenging Job-
Where does a customer figure in relationship marketing Paradigm – New
Approaches to the Marketing Emergence of the Network Marketing
Paradigm- Technology used in CRM.

Reference :
ERP :   TATA McGraw PUBLICATION
ECOMMERCE :   C.S.V. MURTHY

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SEMESTER-III
PAPER-3.4 : QUANTITATIVE TECHNIQUES
(With effect from July 2002)

1. LINEAR PROGRAMMING PROBLEMS

Statement of L.P.P. Simple examples and formulation of problems. Definition of slack variable, surplus variable, unrestricted variable, decision variable, solution, feasible solution, degenerate and non-degenerate solution, optimum solution, basic and non-basic variable, objective function, constraint and non-negative condition.

Solution of L.P.P by simplex method (up to three variables only), criteria for unbounded solution.(Graphical method is not expected)

2. SIMULATION

Concepts and meaning of simulation, advantages and disadvantages, Monte-Carlo technique of simulation.

3. NETWORKING ANALYSIS

Definition of Event, activity, critical activity, project duration, predecessor and successor activity or event, Fulkerson's rule properties and construction of a networking.

4. THEORY OF GAMES :-

Concept of game theory, two person zero-sum game, saddle point, mini-max and max-mini principle, fair and not fair game, principle of dominance, solution of game problem by using arithmetic, matrix, and graphical method.

1. Operational Research   TAHA
2. Operational Research   S.D SHARMA
3. PERT and CPM   L.S. SHRINATH
4. Quantitative Technique   JHAMB

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MCM
SEMESTER-III

PAPER-3.5 VISUAL BASIC
(With effect from July.2002)

Unit 1: **Introduction to Visual Basic**
Introduction, objectives, VB application Development cycle,
Types of installation (Enterprises, Learning, Professional)
Visual Basic Controls.

Unit 2 : **Programming Fundamentals**
Introduction, objective, variable, data type, modules,
procedures, functions, control structures, exit statement, control
array, arrays.

Unit 3 : **Menus, MDI and Data Files**
Introduction, objective, Menu editor, writing code for menu
controls, Dialog boxes, MDI Application Menus in MDI
Application, status bar, Toolbar, Data files.

Unit 4 : **Accessing Databases**
Introduction, objective, Database, creating database using
Visual data manager, accessing database, data control, DAO,
ADO, RDO, Visual Basic and oracle connectivity.

Unit 5 : **Active x Components**
Introduction, objective, Active x components, Active x control,
Active x code components, Active x documents.

Unit 6 : **Report/System functions**
Introduction, objective, creating report, data report, data
environment, report designer – connection commands.
Interacting with data in a Microsoft Jet Database IIS
Application, Library function, Error Handling.

Reference :
1. Muvach's Visual Basic 6.0
            - Muvach
2. Visual Basic from Ground up ,Gary Cornel.

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SEMESTER.-III
PAPER-3.6: LAB BASED ON 3.1 AND 3.5
(With effect from July,2002)

List Of Practicals For DBMS (3.1)

1. Create tables using Primary and Referential Integrity constraints.
2. Manipulate data in the table
     - Using Insert , Update ,Delete Commands.
     - Using Aggregate , Mathematical ,String and Date functions.
     - Using Group By and Order By Clause.
3. Accessing the database using HTML document from WWW.

6.Creating Users and Granting and Revoking Privileges from the given USERS

4. Demonstrating concurrency control mechanism using Locks.

List Of Practicals For VISUAL BASIC (3.5)

1. Create a VB Application which shows use of all intrinsic controls.
2. Develop a Simple event demo of Visual Basic.
3. Develop a Scientific Calculator using control array.
4. Create a Marksheet using standard module.
5. Create a Paint Brush Application.
6. Create Database application using Data Control.
7. Create Database application using ADODC Control.
8. Create Simple Report, Grouping Report using Data Report.
9. Create menu on MDI form and call different form on it also show status bar and Toolbar on it.
10. Build a ActiveX Control and call it on a form.

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SEMESTER-IV

PAPER-4.1 Management information System
(With effect from July,2002)

- Introduction and Evolution MIS
- Need and Benefits of MIS
- Objective, function and Characteristic of MIS

Management, Organization and MIS
- Management organization structure and Functions
- System approach to Management and Organization

Data and Information
Meaning of Information, Characteristic of Information, Types and value of Information.

Using Information management in control

Subsystems of MIS
- Organizational functions subsystem and managerial activities subsystem,
- Concept of Planning and Control.
- Law of Requisite Variety
- Physical structure of Organization of MIS
- Planning for the MIS Designing and implementing the MIS

Operating element of Information System.
Physical components, processing components and users
System Concepts, Characteristic, Feedback and control,
Difference between organizational system and MIS
Strategic information System, Business as a System
Principal functional systems in a Business

MIS for decision making
Structural and programmable decision
MIS and information resources – Concept of IRM (Information Resource Management)
Features of IRM
MIS and decision supports system
MIS and Expert System

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MIS structure based on organizational function – Application

(Case Studies)
Sales and Marketing Subsystem
Production Subsystem
Personal Subsystem
Finance and accounting Subsystem
Information processing subsystem

(While explaining these applications consider an organization manufacturing multiple products with sales outlets across the country)

Books Recommended

1. Management information system --Gardon B. Devis
2. Management Information System – Robert Schultheis, Mary Sumner
3. Management Information System – James O'Brien.
4. Management Information System – Jerome Kanter, Prentice Hall
5. Management Information System – C.V.S. MURTHY

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SEMESTER-IV

PAPER-4.2 ESSENTIALS OF e-COMMERCE
(With effect from July,2002)

UNIT 1 : WHAT IS ELECTRONIC COMMERCE?
1. Fundamentals of Electronics Commerce
2. Traditional Commerce: An Overview
3. Issues Associated With E-Commerce
4. Comparison Between Traditional And E-Commerce
5. Broad View Of E-Commerce

UNIT 2: SECURITY OF E-COMMERCE
1. Introduction & Objectives
2. Security Threats And Solution
3. Techniques And solutions For E-Commerce Security
4. Message Security
5. Methods Of Encryption
6. Certificate Authority
7. Enterprise Authentication Using Digital Certificate
8. Few Security Standards For The Internet
9. Shielding The Network using "Firewall"
10. Role Of Virtual Private Network(VPN)
11. Network Security

UNIT 3: ELECTRONIC PAYMENT SCHEME
1. Introduction & Objective
2. A Look At The Traditional Payment Methods
3. Layered Protocol Model For Electronic Payment
4. A view Of Internet Payment Process
5. An Understanding Of Credit Card Payment Schemes On The Internet
6. Cyber Cash, Veritone and First Virtual Payment Schemes
7. SET And JEPI
8. Electronic Checking
9. Digital Cash

UNIT :4 ECTRONIC DATA INTERCHANGE
1. Introduction & Objective
2. History Of EDI
3. Implementation Difficulties Of EDI
4. EDI Working Concepts

5. Financial EDI
6. EDI & Internet

UNIT 5: ELECTRONIC MARKETS AND ITS STRATEGIES
1. Introduction & Objectives
2. Classifications Of E-commerce Market
3. Value Chain And Market Space
4. Role Of Intermediaries
5. Frame Work For Business Values
6. Evolving With The Internet
7. E-Commerce Business Issues

UNIT 6:CONSUMER ORIENTED BUSINESS
1. Introduction & Objectives
2. Consumer Markets
3. One To One Marketing
4. Consumer Demographics
5. Maintaining Loyalty
6. Gaining Acceptance
7. Online Catalogue
8. The Pilot Catalogue
9. A Unique Search Engine

The Internet vs. Private Nets
Security
Infrastructure
Digital Cash , Smart Cards
Online Catalogues
E-mail And Micro Transactions

References:
1.e-commerce – C.S.V. MURTHY
2.e- commerce , Strategy, Technology and Application, David Whitely

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SEMESTER-IV

PAPER-4.3 : SQL SERVER 7.0
(With effect from Jul', 2002)

1. **Introduction to SQL Server**
    a. What is SQL server
    b. SQL Server Platform
    c. SQL Server integration with Windows NT, MS Back Office,
       SQL Server Services.
    d. SQL Server Software and Architecture.

2. **SQL Server Administration**
    a. Security
    b. Databases, Types of Databases
    c. Database Objects
    d. SQL Server Objects
    e. System Tables
    f. Metadata Retrieval
    g. Designing, Implementing, administering SQL Server database

3. **Overview of Transact**
    a. SQL Server Programming Tools
    b. Transact SQL Programming Lang.
    c. Element of Transact – SQL
    d. Ways to execute Transact - SQL Statements
    e. Processing and caching queries.

4. **Creating Databases**
    a. Tables, Data Types, Special Data Types – bit, text & images
    b. Creating & Modifying databases
    c. Creating File Groups

5. **Planning & Creating Indexes**
    a. Introduction and Importance of Indexes
    b. Architecture
    c. Creating Indexes with different options, maintaining.

6. **DBCC Commands**
7. **Revising DBMS Concepts with respect to SQL Server**
    a. Primary key constraints, default values, rules.
    b. Adding data to tables, modifying data, deleting data.
    c. Sub queries, nested queries.
    d. Summarisation of data, aggregate functions, Group by.

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e. Date, Time, Functions, Text Functions.

f. Views, Stored Procedures – Creating, executing, parameterised procedures, handling error messages.

g. Triggers, defining examples.

8. Compute, Compute by clause

a. Listing top N values.

b. Managing Transactions, locks.

9. SQL Server Locks

a. Managing Locks, Dead Locks.

10. Working With Distributed Data

a. Introduction to Distributed Data.

b. Executing ad-hoc query on remote data source.

c. Setting up linked environment.

d. Executing query on linked server.

e. Procedures on linked server.

11. Advanced Text Queries

a. MS Search service

b. Introduction to English Query, Concept, Installing.

c. Creating English Query Application.

12. Backing Up & Restore

a. Backing Up User Databases and System Databases (Master databases, MSDB, model, temp DB, Distribution)

b. Implementing Backups
    i.   Creating Backup Device
    ii.   Verifying database consistency

c. Restoring

13. Implementing a Case Study

(e.g. Banking, Publication, Academic, Medical)

Using SQL Server i.e. creating databases and other SQL Server Objects (Index, procedures, DBCC etc)

Reference Books:-
1. The Complete Reference SQL :- James R. Groff, Weinbergen Paul N.
2. Learn MS SQL Server 7.0. :- Ramahlo
3. Mastering SQL Server 2000 :- Gunderloy
4. SQL Server 7 :- Suwtell
5. SQL Server 7 Developer's Guide :- OTEY
6. SQL Server 7 : A Beginner's Guide :- Petcovic
7. Teach Yourself SQL Server 6.5 in 21 Days :- Sams
8. MS SQL Server 7.0 Administrative Guide :- BPB Publications

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SEMESTER-IV

PAPER-4.4 Programming In Java

(With effect from July,2002)

Unit 1 : **Language Fundamentals:**
Language features, Applications & strength, Comparison with C++, Data types (basic + aggregated), Operators, Control structures,
Basic opp's in Java : classes, objects, polymorphism, packages, wrapper classes.

Unit 2 : Installation JDK, Tools and packages (basics, scope, organization),Text editor, compiling and running Java programs.

Unit 3 : **Inheritance**
Basics, super method, dynamic method dispatch, abstract base class, use of final and static statement with inheritance, object class.
Inheritance : Defining and using interfaces, properties of interfaces, cloneable interface.
Inner classes : Uses, local inner classes, anonymous local inner classes, Static inner classes.

Unit 4 : **Event handling :**
Model-view-controller architecture (all types of event classes e.g. Key-event, Mouse-event, Window-event, text etc. should be covered)

Unit 5 : **Working with Windows Environment AWT class hierarchy; component.**
container, panel, window, frame classes.
Simple windows program like creating a frame.
Graphics objects : Discuss all methods, swing windows controls: Jtextfield, Jbuttons, Jmenu-item, Dialogue boxes: Model, modelless, standard dialogue boxes, Icons and Labels, J-Scrollbars, tabbed panes, scroll panes.

Unit 6 : **Applets :**
Uses of Applets, Incorporating applets in HTML page, applet methods, life cycle of applets, security issues related to applets.

Unit 7 : **File handling :**

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Java stream hierarchy, object serialization, Introduction to JDBC.

Reference Books :

1. Core Java Vol-1 and Vol-II
   Sun press
2. Complete Reference Third Edition (TMH)
   Patrick Naughton & Herbert Schildt.
3. Java Programming
   Balaguruswami

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PAPER-4.5 PROJECT REPORT AND VIVA VOCE
(With effect from July,2002)

- ## RULES For Project Viva-Voce

Project must be individually worked. Project is Equivalent to one theory paper and ratio of marks is 60: 40. (i.e 60% External and 4o% Internal) . Project Report must consist of the following Chapter. However , if the project undertaken is other then commercial Projects then the table of contents may differ depending upon the Nature of the system selected by the candidate.

1. Certificate from the Institute.
2. Certificate from the Organization.
3. Introduction to Organization with Existing System.
4. Need for the Proposed System.
5. Data Flow Diagram.
6. System Flow Diagram.
7. ERD.
8. Input File Design.
9. Essential Hardware and Software Requirement.
10. Feasibility Report.
11. Menu Design.
12. System Testing.
13. User Manual
14. Sample Output Reports (At Least 8)

- **External Project Report Evaluation**   (60 Marks)

1. Demonstration and Presentation   (20 Marks)
2. Viva   (15 Marks)
3. Menu Design and Creativity in Reports   (15 Marks)
4. Input Design and Normalization   (10 Marks)

Note: Internal Project Viva should be conducted using same guidelines as for the external Project Viva.

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PAPER-4.6 LAB BASED ON 4.3 AND 4.4
(With effect from July,2002)

List Of Practicals for SQL Server (4.3)

1. Design a database, add user and groups to database
2. Change the Database Owner and grant some permission to the owner
3. Add various role to the database
4. Remove some granted permission from database
5. Take backup to database and restore it
6. Create a table Using optional identity, constraint, nullability
7. Create a table with user defined datatype
8. Create a server with SQL server enterprise manager
9. Import / Export data using server enterprise manager
10. Write queries using : simple, select, clause like where, group by, with, having, order by, computer & for clause.
11. Write a queries using : aggregate function, super aggregate (ROLLUP CQBE) different joins, subjoins, subqueries, and unions, operations.
12. Create Index on table using command and SQL server enterprise manager.
13. Create various types of views.
14. Create stored procedure, and parameterized stored procedure.
15. Create a trigger for insert, update, delete, on table, drop trigger.

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JAVA PROGRAMMING LIST OF PRACTICALS(4.4).

1. Write a Java program to print first 50 prime numbers in tabular form.
2. Write a Java program to implement Income Tax Calculator.
3. Design a class to represent customer for an Electricity board. Write a Java program to print the bills for customers. Enter data for at least 10 customers from keyboard. Assume the changes for units consumed by each customer.
4. Write a Java program to implement employee information system using inheritance, where manager, clerk, executives are employee.
5. Write a Java program to design a data entry form for Inventory data.
6. Create an Applet code, which display "Hello World".
7. Create an Applet code, which displays the font control.
8. Create an Applet code using Paint mode set, whenever a new object is drawn it overwrites the original contains of the drawing object.
9. Create a Java program to display the line graph (using Applet).
10. Create an Applet for drawing the Human faces.

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MCM SEMESTER IV
Rules For Conducting Project Viva –Voce

1. Project must be undertaken by the students during the summer vacation, after the completion of Semester II but before the commencement of semester III.
2. The Institute should appoint internal guides for this purpose.
3. The concerned guide should not be assigned more than 5 students. In case of more students, the fact should be brought to the notice of the Dean.
4. The Institute should not allow Duplication of the project, Copying of the Project and getting assistance from the outside agencies and if any project is found to have been copied from any other project either of the same or earlier years , this fact should be reported to the University immediately. In this case Viva-Voce of such student should not be conducted.
5. The Institute shall offer full cooperation to the guides, who will spend at least 5 Hours per student to guide him. The remuneration for this work shall be equivalent to the honorarium of 5 hours.
6. The Institute shall conduct Internal Viva for assessing the performance of the students in 3 Phases.
   i.   Brief outline of the Project.
   ii. Draft Project Report with all the Chapters.
   iii. Demonstration of the Project Report.

7. The Marks for Internal viva, conducted by the Institute should be communicated to the University before the commencement of External Viva.
8. The examiner should give full justice to the students for presenting His /Her report.
9. Institute should provide OHP/LCD Projector for the Presentations to the candidates.
10. In case of Power failure, Viva should not be conducted till proper arrangements are made.
11. The Internal Viva should carry 40 Marks.
12. The External Viva should carry 60 Marks.

13. In case of failure of the students in Internal or External Viva-Voce, it is recommended that this Exam should be conducted in the month of October to avoid loss of the Full year.

14. The Marks for Practicals and Viva should be duly Sealed and signed by the external examiners and same should be sent to the university through the Director of the Institute.

15. The slips for Practical examination should be prepared by the University

16. We recommend that student should be given one chance to change the slips, for which no marks should be deducted.

17. It shall be the duty of all the concerned Faculty members and Non-teaching Staff to co-operate with External Examiners to carry out the exam work smoothly.

18. For Projects and Practicals, Batch of 15 candidates is recommended for which it shall be the duty of the Director to provide minimum 15 Pentiums.

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