



GUJARAT UNIVERSITY - SEMESTER III

MCA 211 SYSTEM SOFTWARE

(50 MARKS - 4 HOURS)

PREREQUISITES

MCA BUSINESS DATA PROCESSING
MCA LOGICAL ORGANIZATION OF COMPUTERS

OBJECTIVES OF THE COURSE

- TO STUDY ARCHITECTURE OF VARIOUS SYSTEM SOFTWARE'S.
- TO GIVE STUDENT PRACTICAL "HAND - ON" EXPERIENCE

COURSE CONTENT

- 1. ASSEMBLERS :** (4 HOURS)
FEATURES OF ASSEMBLY LANGUAGE, MNEMONICS TABLE, SYMBOL TABLE, DIRECTIVES, LOCATION COUNTER, METHODS OF TRANSLATION, LIST FILES
- 2. MACRO PROCESSORS:** (4 HOURS)
MACRO IN ASSEMBLY LANGUAGE, MACRO NAME TABLE, MACRO DEFINITION TABLE, MACRO WITH SYMBOLS, NESTING OF MACROS.
- 3. LINKER & LOADER :** (6 HOURS)
VARIOUS LINKING TECHNIQUES, VARIOUS LOADING TECHNIQUES, RELOCATIBILITY, SHAREABILITY.
- 4. INTRODUCTION TO COMPILER :** (4 HOURS)
INTRODUCTION TO STAGES OF COMPUTER, PARSING, SYNTAX ANALYSIS, LEXICAL ANALYSIS, CODE GENERATION, CODE OPTIMIZATION, INTERMEDIATES CODE.
- 5. DEBUGGER :** (6 HOURS)
FUNDAMENTALS OF DEBUGGING, DEBUGGING TECHNIQUES, DEBUGGING DIAGNOSTICS TOOLS, CASE STUDY OF ANY DEBUGGER.

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6. SOFTWARE LIBRARY : (8 HOURS)

SOFTWARE MODULE LIBRARY AND ARCHIVES, LIBRARY ARCHITECTURE, LIBRARY MANAGEMENT, ARCHITECTURE AND MANAGEMENT OF DYNAMIC LINK LIBRARIES.

6. ODBC & DEVICE DRIVERS : (6 HOURS)

REQUIREMENTS OF DRIVERS, DRIVER ARCHITECTURES, DEVICE DRIVERS, ODBC DRIVERS.

REFERENCE BOOK :

1. TOOLS AND TECHNIQUES OF COMPILERS DESIGNING
ULMAN & AHO
2. COMPLIER CONSTRUCTION
D M DHANDHARE

MCA 212 COMPUTER ORIENTED STATISTICAL METHODS

(50 MARKS 3 -HOURS)

OBJECTIVES OF THE COURSE

- TO GIVE THE STUDENTS A WORKING KNOWLEDGE OF THE CONCEPT OF PROBABILITY AND STATISTICS A RATHER ABSTRACT PRESENTATION BUT PRACTICAL APPLICATION SHOULD BE PRESENTED AS OFTEN AS POSSIBLE. MOREOVER, A GREAT NUMBER OF EXERCISES SHOULD BE GIVEN ON PRACTICAL EXAMPLES WITH REAL DATA HOME-WORKS.

COURSE CONTENT

1. PROBABILITY THEORY (20%)

RANDOM EVENTS, VARIOUS DEFINITIONS OF PROBABILITY COMPLEMENTATION RULE, ADDITION RULE, MUTUALLY EXCLUSIVE EVENTS, PERMUTATIONS AND COMBINATIONS, CONDITIONAL PROBABILITY MULTIPLICATION AND COMBINATIONS, CONDITIONAL PROBABILITY, MULTIPLICATION RULE FOR INDEPENDENT EVENTS BAYE'S RULE.

2. RANDOM VARIABLES AND THEIR DISTRIBUTED (20%)

DISCRETE AND CONTINUOUS RANDOM VARIABLES, MATHEMATICAL EXPECTATION, JOINT PROBABILITY

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DISTRIBUTION OF TWO RANDOM VARIABLES, COVARIANCE INDEPENDENCE OF RANDOM VARIABLES, CHEBYSHEVINEQUALITY, BINOMIAL, HYPERGEOMETRIC, GEOMETRIC, POISSON, NORMAL AND EXPONENTIAL DISTRIBUTION.

3. STATISTICAL INFERENCE (20%)

SAMPLING DISTRIBUTION , POINT ESTIMATION AND CONFIDENCE INTERVAL ESTIMATION, TESTING OF HYPOTHESIS ABOUT MEAN FOR SMALL AND LARGE SAMPLES, X TEST NON PARAMETRIC METHODS.

4. STATISTICAL METHODS USED IN INDUSTRIAL PRACTICES (20%)

ANALYSIS OF VARIANCE, ANALYSIS OF VARIANCE IN TWO WAY CLASSIFICATION MODEL, INTRODUCTION OF EXPERIMENTAL DESIGN, RANDOMIZED BLOCK DESIGN, FACTORIAL EXPERIMENTATION, INTRODUCTION TO MULTIVARIATE ANALYSIS, MULTIPLE REGRESSION, FACTOR ANALYSIS, DISCRIMINATE ANALYSIS.

5. TIME SERIES ANALYSIS (20%)

TIME SERIES, VARIOUS COMPONENTS OF A TIME SERIES, MOVING AVERAGE METHOD, EXPONENTIAL SMOOTHING, BOX-JENKING'S PREDICTION MODEL.

STATISTICAL METHODS BY S.P.GUPTA

LABORATORY :

STUDY THE APPLICATIONS OF STATISTICAL PROGRAM LIBRARIES. USE OF ONE OF IMSL, STATPACK, BIOMED, NAG, SSP & SIMILAR STATISTICAL PACKAGES.

LAVIN RUBIN STATISTICS FOR MANAGEMENT, SEVENTH EDITION (PHI)

MCA 213 OPERATING SYSTEM (50 MARKS 3- HOURS)

PREREQUISITES

MCA BUSINESS DATA PROCESSING

MCA LOGICAL ORGANIZATION OF COMPUTERS

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OBJECTIVES OF THE COURSE

- TO STUDY FUNCTIONAL UNITS OF OPERATING SYSTEM
- TO STUDY COMMUNICATIONS WITH PERIPHERAL DEVICES AND INTERRUPT HANDLING.
- TO OVERVIEW THE OTHER PARTS OF MULTIPROGRAMMING OPERATING SYSTEM
- TO GIVE STUDENTS PRACTICAL " HANDS-ON" EXPERIENCE

COURSE CONTENT

- 1. PROCESS MANAGEMENT (20%)**
PROCESS, CONCURRENT PROCESSING, PCB, PROCESS, STATES, SCHEDULING, INTER PROCESS COMMUNICATION, INTER PROCESS SYNCHRONIZATION, MUTUAL EXCLUSION, SEMAPHORE, DEADLOCK MANAGEMENT.
- 2. I/O MANAGEMENT (5%)**
PROGRAM CONTROLLED I/O , INTERRUPT CONTROLLED I/O, MULTIPLE I/O INTERVAL TIMER, I/O PORT, USART, INTERFACE, DRIVER
- 3. MEMORY MANAGEMENT (20%)**
CONTIGUOUS ALLOCATION, NON-CONTIGUOUS ALLOCATION, SEGMENTED ALLOCATION PAGE ALLOCATION, VIRTUAL MEMORY MANAGEMENT, CACHE MEMORY.
- 4. FILE MANAGEMENT (20%)**
STORAGE DEVICE MANAGEMENT, STORAGE ALLOCATION/ DEALLOCATION. STORAGE STRUCTURES, DIRECTORY STRUCTURES, FILE MANAGEMENT SERVICES, DEVICE MANAGEMENT SERVICES.
- 5. PARALLEL/ DISTRIBUTED OPERATING SYSTEMS (10%)**
PARALLEL SYSTEMS, DISTRIBUTED SYSTEMS, REMOTE PROCEDURES CALLS
- 6. UNIX OPERATING SYSTEM (15%)**
DEVELOPMENT OF UNIX, UNIX SHELL, SYSTEM CALLS. SCRIPT PROGRAMMING, FILE MANAGEMENT
- 7. WINDOWS NT (10%)**

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BASICS OF WINDOW ENVIRONMENT, FILE MANAGEMENT, MULTITASKING DLL, OLE.

REFERENCE BOOKS :

UNIX CONCEPTS & APPLICATION

SUMITABEN DAS

CH – 1 TO 16

EXCLUDE CHP. 14

MCA 214 COMPUTER BASED MANAGEMENT SYSTEMS -I

(50MARKS 3-HOURS)

OBJECTIVES OF THE COURSE

- TO ESTABLISH THE ROLE OF INFORMATION SYSTEMS IN ORGANIZATIONS AND HOW THEY RELATE TO ORGANIZATIONAL OBJECTIVES AND ORGANIZATION STRUCTURE.
- TO IDENTIFY THE BASIC CONCEPTS THAT SUBSEQUENT COURSES WILL DRAW UPON; THE SYSTEM POINT OF VIEW, THE ORGANIZATION OF A SYSTEM INFORMATION FLOWS, THE NATURE OF INFORMATION.
- TO PROVIDE STUDENTS WITH KNOWLEDGE OF BASIC TECHNIQUES AND ELEMENTARY SKILLS IN REPRESENTING SYSTEM STRUCTURE.
- TO INTRODUCE VARIOUS TYPES OF APPLICATIONS WHICH ARE PART OF AN INFORMATION.

COURSE CONTENT

1. INFORMATION SYSTEM AND ORGANIZATION (25%)

A. MANAGEMENT INFORMATION SYSTEM: ROLE OF INFORMATION SYSTEMS IN ORGANIZATION. ALTERNATIVE TAXONOMIES OF INFORMATION SYSTEM, SUCH AS MODES OF PROCESSING, MANAGEMENT LEVELS, STRUCTURE OF A MANAGEMENT INFORMATION SYSTEM. HUMAN- MACHINE INFORMATION SYSTEMS.

B. RELATING SYSTEMS AND INFORMATION TO ORGANIZATIONAL OBJECTIVES :

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MATCHING THE INFORMATION SYSTEM PLAN TO THE ORGANIZATIONAL STRATEGIC PLAN. IDENTIFYING KEY ORGANIZATIONAL OBJECTIVE AND PROCESS AND DEVELOPMENT AN INFORMATION SYSTEM DEVELOPMENT. IDENTIFYING ORGANIZATIONAL INFORMATION NEED. APPROACH TO DEVELOPMENT OF AN ORGANIZATIONAL INFORMATION SYSTEM. USER ROLE IN SYSTEM DEVELOPMENT PROCESSES ESTABLISHING A PORTFOLIO OF INFORMATION SYSTEM APPLICATIONS. IMPORTANCE OF AUDIBILITY, MAINTAINABILITY AND RECOVERABILITY IN SYSTEM DESIGN.

C. INFORMATION SYSTEM AND ORGANIZATIONAL STRUCTURE AND MANAGEMENT: INFORMATION/ DATA AS ORGANIZATIONAL RESOURCES. MANAGEMENT AND OWNERSHIP OF SYSTEM AND INFORMATION/DATA RELATIONSHIP OF ORGANIZATIONAL STRUCTURE AND INFORMATION REQUIREMENTS. ROLE OF INFORMATION IN ORGANIZATIONAL PLANNING. MANAGEMENT OF CHANGE CAUSED BY INFORMATION SYSTEMS. EXPECTATIONS MANAGEMENT.

2. REPRESENTATION AND ANALYSIS OF SYSTEM STRUCTURE (15%)

MODELS FOR REPRESENTING SYSTEMS NARRATIVE MATHEMATICAL, GRAPHICAL TABULAR AND PROCEDURAL. GRAPHICAL METHODS. HIERARCHICAL (ORGANIZATION CHART, TREE DIAGRAM, ETC.) INFORMATION FLOW, PROCESS FLOW, DECOMPOSITION AND AGGREGATION, METHODS AND HEURISTICS, REPRESENTATION ASSURANCE, COMPLETENESS, CONSISTENCY, ADEQUACY, APPLICATION OF SYSTEM REPRESENTATION METHOD TO CASE EXAMPLES.

3. SYSTEMS, INFORMATION AND DECISION THEORY (10%)

A. SYSTEMS CONCEPTS: GENERAL SYSTEMS THEORY, SYSTEMS CONCEPTS STRUCTURE, BOUNDARIES, STATES, AND OBJECTIVES. SYSTEM CLASSIFICATION, OPEN, CLOSED, DETERMINISTIC, AND PROBABILISTIC, CONCEPTS OF ENTROPY AND ADAPTATION, PROPERTIES OF OPEN SYSTEMS, SYSTEM ELEMENTS. SYSTEM INTERACTS, ELEMENT INDEPENDENCE/DEPENDENCE, DECOUPLING AND COSTS, SYSTEMS WITH

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COMPLEX/ CONFLICTING/ MULTIPLE OBJECTIVES, METHODS OF RESOLUTION, SUBOPTIMIZATION.

B. INFORMATION CONCEPTS; INFORMATION THEORY. INFORMATION CONTENT AND REDUNDANCY. DATA V/S INFORMATION, VALUE OF INFORMATION, PSYCHOLOGICAL VALUE OF INFORMATION CLASSIFICATION AND COMPRESSION. SUMMARIZING AND FILTERING, INFERENCES AND UNCERTAINTY ABSORPTION. HUMAN AS INFORMATION PROCESSORS.

C. DECISION PROCESSES: IDENTIFYING INFORMATION NEEDED TO SUPPORT DECISION-MAKING. HUMAN FACTORS, PROBLEM CHARACTERISTICS, AND INFORMATION SYSTEM CAPABILITIES IN DECISION-MAKING.

4. INFORMATION SYSTEM APPLICATIONS (45%)

A. TRANSACTIONS PROCESSING APPLICATIONS. BASIC ACCOUNTING APPLICATIONS.

B. SYSTEMS TO SUPPORT OPERATIONAL PROCESS. PRODUCTION, MARKETING, FINANCE, LOGISTICS, ETC.

C. TRANSACTIONS TO SUPPORT MANAGEMENT CONTROL.

D. APPLICATIONS FOR BUDGETING AND PLANNING.

E. SYSTEMS TO SUPPORT DECISION-MAKING, DEFINING A DECISION MODEL. DEVELOPING A PROTOTYPE. APPLICATION OF HIGH-LEVEL USER LANGUAGE. ADAPTIVE DECISION, MOVING THROUGH PROGRESSIVE CYCLES TOWARDS AN OPTIMUM SYSTEM. CASE EXAMPLES USING HIGH-LEVEL LANGUAGE IN SOLUTION.

F. OTHER USE F INFORMATION TECHNOLOGY : WORK PLACE AUTOMATION, WORD PROCESSING ELECTRONIC MAIL, PERSONAL COMPUTER REMOTE CONFERENCING AND GRAPHICS.

5. SYSTEM EVALUATION AND SELECTION (5%)

IDENTIFICATION AND GENERATION OF ALTERNATIVES.
EVALUATION AND SELECTION OF ALTERNATIVES.
ESTABLISHING PRIORITIES AND ALLOCATING RESOURCES,
COST BENEFIT, ORGANIZATIONAL POWER, CENTRALIZED
VERUS DECENTRALIZED ALLOCATION MECHANISM.

REFERENCE BOOKS :

1. INFORMATION SYSTEMS FOR MODERN MANAGEMENT
THIRD EDITION
ROBERT G. MURDICK
JOEL E. ROSS
JAMES R. CLAGGETT
PHI PUBLICATIONS.
CHPS : 1, 2, 5, 7, 8 (ONLY OUTLINE), 9, 10, 11, 12 – (65%)
2. BUSINESS SYSTEMS FOR MICROCOMPUTERS
WILLIAM D. HANNISEN
JAMES L. CAMP
PHI PUBLICATIONS
CHPS : 6, 7, 8, 9, 10, 11, 12, 13 – (35%)
1. CONCEPTUAL SYSTEM DESIGN : MIS DEVELOPMENT PROCESS.
KEY TASKS OR STEPS. OUTLINE OF DETAILED SYSTEM DESIGN
BASIC METHODS OF IMPLEMENTATION. EVALUATION OF MIS.
2. PITFALLS IN MIS DEVELOPMENT
3. SYSTEMS CLASSIFICATIONS & RELATED CONCEPTS.
4. DECISION MAKING & MIS, MIS AS TECHNIQUE FOR MAKING
PROGRAMMED DECISIONS.
5. M.S. TECHNIQUES & DECISION MAKING. MODELS – USES AND
LIMITATIONS ETC.
6. BASIC INFORMATION SYSTEMS TO SUPPORT OPERATIONS,
MARKETING, FINANCE AND ACCOUNTING, PROJECT PLANNING &
CONTROL.
 - (1) COPIS
 - (2) INVENTORY MANAGEMENT : (A) STOCK REPLENISHMENT
(B) MERCHANTISE MANAGEMENT AND
RELATED TOPICS
 - (3) ACCOUNTS PAYABLE SYSTEM
 - (4) ACCOUNTS RECEIVABLE SYSTEM

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- (5) FAS & RELATED TOPICS
- (6) PAYROLL SYSTEM
- (7) MARKETING INFO. SYSTEM
DISCUSS THE BUSINESS CONSIDERATIONS, SYSTEM
RELATIONSHIPS, SYSTEM FLOW AND OUTPUTS AND INPUTS
PERTAINING TO :
 - (1) COPIES
 - (2) ACCOUNTS PAYABLE SYSTEM
 - (3) ACCOUNTS RECEIVABLE SYSTEM ETC.

CHAPTER : 1,2,5,7

- (8) (DETAILS OF SYSTEM DESIGN : (ONLY OUTLINE) 9, 10, 11, 12

MCA 215 CLIENT SERVER ARCHITECTURE & INTERFACES

(50 MARKS, 3-HOURS)

1. CLIENT- SERVER ARCHITECTURE :

DISTRIBUTED PROCESSING, COOPERATIVE PROCESSING, CLIENT/ SERVER PROCESSING, PEER- TO -PEER PROCESSING, CLIENT/ SERVER ARCHITECTURE, TIME SHARING, RESOURCES SHARING, HOW DO THE CLIENT AND SERVER COMMUNICATE? DIFFERENCES BETWEEN A DATABASE SERVER AND FILE SERVER, DATABASE SERVER ARCHITECTURE, OPEN SYSTEMS INTERCONNECT (ISO) MODELS, APPLICATION ARCHITECTURE, INFORMATION SYSTEM ARCHITECTURES, FUNCTION (APPLICATION) ARCHITECTURE, DATA ARCHITECTURE, NETWORK (TECHNOLOGY) ARCHITECTURE. APPLICATION PARTITIONING MODELS, DISTRIBUTED PRESENTATION, REMOTE PRESENTATION. DISTRIBUTED LOGIC, REMOTE DATA MANAGEMENT, DISTRIBUTED DATA MANAGEMENT DEVELOPER'S VIEW OF A CLIENT/ SERVER APPLICATION. APPLICATION SEGMENTATION, USER INTERFACE, DATA CONNECTIVITY AS ISSUE DATA ACCESS STRATEGIES, DISTRIBUTED DATABASE CENTRALIZED DATABASE, HETEROGENEOUS DATA ACCESS, TRANSACTIONAL DATA VERSUS ANALYTIC DATA, DATA WAREHOUSE, MIDDLEWARE COMMON INTERFACE, COMMON GATEWAY, COMMON PROTOCOL, TECHNICAL ARCHITECTURE, SELECTION OF PLATFORM AND DEVELOPMENT TOOLS, DATABASE SERVER SELECTION TYPES OF FRONT-END DEVELOPMENT TOOLS,

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INTEGRATION OF TOOLS, DATABASE HARDWARE, COMPUTER-AIDED SOFTWARE ENGINEERING (CASE) TOOLS, SELECTION OF CLIENT/ SERVER APPLICATION , OBJECTIVE SELECTION CRITERIA, CASE STUDY, SELECTION OF PILOT PROJECT, SERVICE MODEL USER SERVICES, BUSINESS SERVICES, DATA SERVICES.

2. CLIENT SERVER APPLICATION SYSTEM DEVELOPMENT LIFE CYCLE (SDLC)

A MISSION CRITICAL APPLICATION FUNCTIONAL SPECIFICATION BUSINESS RULES, DATABASE DESIGN, DATA DISTRIBUTION, PROTOTYPING, USER INTERFACE DESIGN, FRONT-END MODULE DESIGN REUSABLE MODULES, GOALS OF THE DESIGN STAGE, WHERE IS USER INTERFACE (U1) DESIGNING THE SDLC? THE USABILITY ICEBERG PROCESS FOR DOING U1 DESIGN, REQUIREMENT GATHERING, MULTIPLE PROTOTYPES.

3. CLIENT- SERVER APPLICATION TOOLS I :

VISUAL BASIC OBJECTS, PROPERTIES, METHODS AND EVENTS FORM, CONTROL AND APPLICATION, PROPERTIES AND METHODS OF A FORM, AN OBJECT BROWSER AND BASIC CONTROLS, CHANGING PROPERTIES AND CALLING METHODS WITH CODE ADDING CODE TO EVENT PROCEDURES, CONTROL ACCESSIBILITY, INTERACTING WITH THE USER, WORKING WITH CODE STATEMENT, VARIABLES AND PROCEDURES, VARIABLES, CONSTANTS, CONVERTING DATA TYPES, PROCEDURES, DEBUGGING TYPES OF ERRORS, DEBUGGING TOOLBAR, BREAK MODE, DEBUG WINDOW, CONTROLLING PROGRAM EXECUTION, CONDITIONAL STATEMENTS, LOOPING, STATEMENT, WORKING WITH CONTROLS, ADDITIONAL STANDARD CONTROLS, CUSTOMS CONTROLS, MENUS, STATUS BARS AND TOOLBARS, CREATING A MENU, POP-UP MENUS, DATA ACCESS WITH DATA CONTROL OVERVIEW OF DATABASE (TABLE FIELD RECORD KEY) , DATA CONTROL OVERVIEW, VIEWING RECORDS, DATA FORM DESIGNER, ENTERING AND EDITING RECORDS DRAG AND DROP EDITING, STEPS FOR ADDING AND DROP FUNCTIONALITY.

4. CLIENT APPLICATION TOOLS II : POWER BUILDER :

CREATING TABLES AND WINDOWS, DATABASE PAINTER, MULTIPLE DATA WINDOWS AND TABLES, USING FOXPRO AS AN

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ODBC DATA SOURCE, MS-WORD AS OLE SERVER FOR POWER BUILDER, DEBUGGING MANAGING, AND RUNNING APPLICATIONS, HELP COMPILER AND HELP SYSTEM, DATA PIPELINE.

REFERENCE BOOK :

VB6 HOW TO [VISUAL BASIC 6 CLIENT / SERVER HOW TO]
JERKE, SZABO, JUNG, KIELY
TECHMEDIA 1ST EDITION
CH : 1.1 TO 1.6

SPECIAL EDITION :

USING VISUAL BASIC 6 SILVER, SPOTS
PHI SPECIAL EDITION

CH : 1 TO CH : 10 10%

CH : 13, 14, 15 16 30%

20%

CH : 28

CH : 29

30%

CH : 30

CH : 31 (IPTO P. 710)

MCA 216 DATABASE MANAGEMENT SYSTEM-II (50 MARKS)

APPLICATION DEVELOPMENT USING RDBMS PACKAGE LIKE ORACLE
7.0 OPEN INGRESS TOPICS:

1. DATA ENTRY FORM DESIGN
2. TRIGGERS, RULES, PROCEDURES, STORED PROCEDURES, DATA BASE PROCEDURES.
3. MENUS
4. SQL
5. 4 GL OF RDBMS
6. UTILITIES FOR DATA
7. DATA BASE ADMINISTRATION: FUNCTION, ORGANIZATIONAL IMPLICATIONS, SHARED ACCESS CONTROL, SECURITY, RECOVERY, QUERY INTERFACES, PERFORMANCE MEASUREMENTS.

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8. DBMS EVALUATION: SELECTION, STANDARDIZATION, SURVEY OF COMMERCIAL DBMS, IMPLEMENTATION TOOLS.
9. DISTRIBUTED DATABASES : MINI AND MICRO DATA BASES, VERY LARGE DATABASE
10. INTRODUCTION TO OBJECT ORIENTED DATABASES.

TEXT BOOK :

ORACLE 9I PL / SQL PROGRAMMING – ORACLE PRESS

REFERENCE :

PL/SQL PROGRAMMING SHROFF PUBLICATION

SQL, PL/SQL PROGRAMMING IVAN BAYROSS

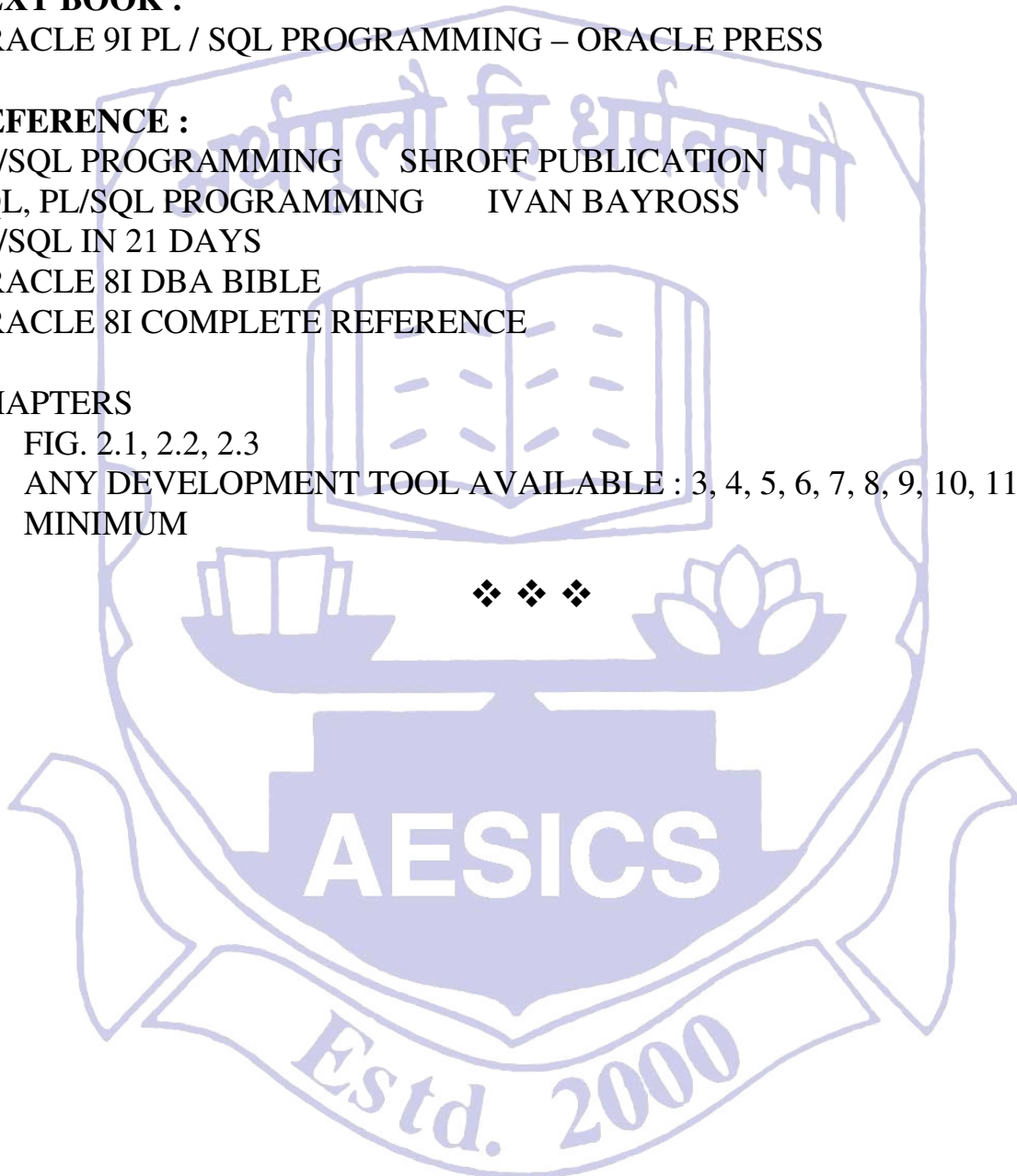
PL/SQL IN 21 DAYS

ORACLE 8I DBA BIBLE

ORACLE 8I COMPLETE REFERENCE

CHAPTERS

1. FIG. 2.1, 2.2, 2.3
2. ANY DEVELOPMENT TOOL AVAILABLE : 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
MINIMUM



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TERM WORK

- Students have to submit term work of respective subjects as per schedule to the respective faculty.
- Late submission will not be allowed
- Clearly write Name, Class and Roll No. on the file.
- Use Spring files and A4 size ruled papers.
- Collect the evaluated term work file from the faculty as per schedule.
- Students is required to produce term work duly certified by the Director and Faculty of AESICS, at the time of University practical examination. Failing to do so, your term will not be granted.

ATTENDANCE

- 75% Attendance is compulsory in theory and practical sessions to grant your semester.

SESSIONAL EXAMINATION

- Two sessional examinations per Semester will be conducted. You are required to compulsory attend all the examinations.

