**DRAFT SYLLABUS PRESCRIBED FOR**

**BACHELOR OF ENGINEERING**

**(INFORMATION TECHNOLOGY)**

**FIFTH SEMESTER**

**5IT01 OPERATING SYSTEMS**

**Unit-I : Introduction:** Operating System(OS) definition, OS Evolution, OS Components and Services .Process Concept, Process Scheduling, Operations on Processes, Cooperating Processes, Interprocess Communication, Threads Overview, Multithreading Models, Threading Issues, Java Threads.

**Unit-II:** CPU Scheduling Concepts, Scheduling Criteria and Algorithms. Process Synchronization: The Critical-Section Problem, Synchronization Hardware, Semaphores, Monitors. Deadlocks: Definition & Characterization, Deadlocks Prevention, Avoidance, Detection and Recovery from Deadlock.

**Unit-III:** Memory Management Background, Swapping, Contiguous

Memory Allocation Schemes, Paging, Segmentation. Virtual Memory Management: Background, Demand Paging scheme, Process Creation, Page Replacement Policies, Allocation of Frames, Thrashing.

**Unit-IV:** File-System Interface; Directory Structure, File-System Mounting, File Sharing & Protection. File- System Structure, File-System Implementation. Directory Implementation, Allocation Methods, Free-Space Management. File Recovery.

**Unit-V:** I/O Systems :Overview, I/O Hardware, Application I/O Interface, and Kernel I/O Subsystem. Transforming I/O to Hardware Operations. Disk Scheduling, Disk Management, Swap-Space Management, RAID Structure.

**Unit-VI:** The Linux System; History, Design Principles, Kernel Modules, Process Management, Scheduling, Memory Management, File Systems, Input and Output, Interprocess Communication, Network Structure & Security in Linux.

**Text Book:**

Avi Silberschatz , P.B.Galvin, G. Gagne: “Operating System Concepts”

(Sixth Edition) John Wiley & Sons Publication.

**Reference Books :**

1. A.S Tanenbaum “Modern Operating Systems” Pearson Education.

2. William Stallings “Operating Systems” Prentice-Hall.

3. D M Dhamdhere “Operating Systems” Tata McGraw-Hill.

4. M Milankovic “Operating Systems” McGraw-Hill.**”**

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2. Taub & Schilling “ Digital Integrated Electronics” (TMH).

3. Jain R.P. “Modern Digital Electronics” (TMH).

4. Fletcher W.I.”An Engineering Approach to Digital Design” (PHI).

**5 IT07 Digital Integrated Circuits Lab :**

Minimum 08 experiments based on the 5IT02 syllabus, two experiments

on each unit. Chapter 11 “Laboratory Experiments” of the text- book:

M.Morris Mano “Digital Design” (2/ e) (PHI), may be referred for

guidelines to setup laboratory sessions.

**5 IT 03 COMPUTER ARCHITECTURE & ORGANIZATION**

**Unit-I: Basic structure of computer:** Hardware & software. Addressing methods. Program sequencing. concept of memory locations & address.Main memory operation. Instructions &instruction sequencing. Addressing modes. BasicI/O operations. Stacks. Queues & subroutines.

**Unit-II: Processing Unit:** fundamental concepts. execution of a complete instruction. hardwired control, performance consideration. Microprogrammed control; microinstructions, microprogram sequencing, microinstruction prefetching, emulation.

**Unit-III: I/O organizatiion:** accessing I/O devices, interrupts, direct memory access: bus arbitration. I/O hardware :processor bus and interfacing circuits ,standard I/O interfaces: SCSI bus, backplane bus standard.

**Unit-IV: Memory Unit:** basic concepts, semiconductor RAM memories, internal organization, static & dynamic RAMs, ROMs. speed, size & cost considerations. Cache memories: performance considerations. Virtual memories, address translation, memory management requirements.

**Unit-V :**Arithmetic; number representation. design of fast adders, signed

addition and subtraction. Multiplication of positive numbers, Booths’ algorithm, Integer division. Floating-point numbers and related operations.

**Unit-VI: Computer Peripherals:** Input-output devices like video displays, video terminals, graphics input devices, printers. Online storage devices: magnetic disks, magnetic tape systems, CDROM systems. Communication devices: Modems.

**Text-Book:**

V.Carl Hamacher & S.Zaky “ Computer Organization” (4/e) McGraw-

Hill(ISE).

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**5IT06 Operating Systems Lab:**

Minimum 8 experiments based on the syllabus of 5IT01.

**5 IT 02 DIGITAL INTEGRATED CIRCUITS**

**Unit-I:** Review of Boolean Algebra, Boolean Functions & Logic families: Canonical & standard forms, Digital logic gates, Digital Integrated Circuits:

Special characteristics like fan-out, power dissipation, propagation delay & noise margin. Bipolar transistor characteristics. TTL , ECl, MOS and CMOS families. Basic circuits, operation and typical characteristics.

**Unit-II:** Simplification of Boolan functions: The K-Map method, Two variable, Three variable, Four variable & Five Variable K-map, Implementation using logic gates, Tabulation method, Determination of prime implicants, Selection of Prime implicants.

**Unit-III: Combinational Logic:i** Introduction, adder, subtractor, Code Convertor, Analysis procedure for Combinational Circuits, Multilevel NAND & Multilevel NOR circuits, Exclusive- OR functions: Odd functions, Parity generation & checking.

**Unit-IV: MSI & PLD components:** Introduction. Binary parallel adder, Binary adder- subtractor, Decimal adder, BCD adder, magnitude comparator, decoders & encoders. multiplexers & demultiplexers.. ROM. Various types of ROMs. Programmable Logic Arrays. Programmable Array Logic .

**Unit-V: Synchronous Sequential circuits:** introduction, Flip-Flops: basic

circuits ,RS- ,D- ,JK- & T- Flip-Flops. Triggering of flip flops. Analysis of clocked sequential circuits. State reduction & assignment. Flip-flop excitation table. Design procedure of Sequential Circuits, . Design of counters: ripple counters, synchronous counters.

**Unit-VI: S**hift registers., Types of Shift Registors, Random access memory

(RAM): Static and Dynamic RAM, Algorithmic State Machines: introduction, ASM chart,.

**Text-Book** :

1. M. Morris Mano “Digital Design” (2/e) (PHI).

2. Jain R.P. “Morden Digital Electronics”(TMH)

**Reference Books:**

1. Charles H.Roth, “Fundamentals of Logic Design” (JPH)

2. Taub & Stallings” Digital integrated Electronics” (TMH)

3. Fletcher W. I. “ AN Engineering Approach to Digital Design: (PHI).

**5 IT 04 COMMUNICATION SKILLS**

**Unit I :** Comprehension over an unseen passage. Comprehension - A - word study :- Synonym, antonym, meanings, matching words, adjectives, adverbs, prefix and suffix, correct forms of commonly misspelled words, understanding of the given passage, reading Comprehension - B - Structure study :- Simple and compound sentences, types of conjunctions, singular and plural, tenses and their effect on verb forms. Use of - not only - but also, if clause, since, may, can, could, would, too etc. Active and passive forms, negative and interrogative, punctuation and capitalization. Summary, Precise & abstract writing. (10Hours)

**Unit II:** Theoretical background - importance of communication, its process, model of communication its components & barriers. Verbal communication, its significance, types of written communication, organization of a text (Titles, summaries, headings, sequencing, signaling, cueing etc.), Important text factors (length of paragraph, sentences, words, clarification and text difficulty). Evaluation of written communication for its effectivity and subject content. Non-verbal communication, types of graphics and pictorial devices. (10 Hours)

**Unit III:** Specific formats for written communication like – business

correspondence, formal reports, technical proposals, research papers and articles, advertising and graphics. Format for dayto- day written communication like writing applications, Resume, notices, minutes, quotations, orders, enquiries etc. Claim letter. Oral communications - Important objectives of interpersonal skills, soft skills(listening, speaking strategy), (verbal and non-verbal), face to face communications, group discussion and personal interviews. Methodology of conduction of meetings, seminars, symposia, conference and workshop. (10 Hours)

**BOOKS RECOMMENDED :**

1) Krishna Mohan, Meera Banerjee : Developing Communication Skills,

MacMillan India Limited.

2) M.A. Rizvi: Effective Technical communication, Tata McGraw Hill.

3) Urmila Rai & S.M.Rai : Communication Skills ,Himalaya Publisher

House.

4) Chrissie Wright (Editor) : Handbook of Practical Communication

Skills, Jaico Publishing House.

5) Dr. Nageshwar Rao & Dr. Rajendra P. Das : Communication skills,

Himalaya Publisher House.

**FREE ELECTIVE - I**

**5FEIT05 (i) INTRODUTION TO COMPUTER NETWORKS**

**Unit -I** : Introdution to Computer Networks, Network Topologiecs, Ethernet LAN, assembling a Home Network and office LAN, Analyzing Computer Networks, Physical Layer Calbling: Twisted Pair, Structural Cabling, UTP Cable, terminating CAT6/ 5E/5UTP cables.

**Unit II** : Computer Fundamentals, Computer Bus connection, Device Drivers, Computer Memory, Overview of FAT and NTFS, configuring the BIOS boot sequence.

**Unit III** : Interconnecting the LAN, OSI Model, network bridge, switch, Router, Interconnecting LANs with the Router. configuring the network interface-Auto-negogiation.

**Unit IV** : TCP/IP : Layers, number conversion, IPV4 Addressing, subnet masks, CIDR blocks, IPV6 Addresing, Analyzing computer networks-FTP data packets.

**Unit V** : Router Configuration,Introduction, Router fundamentals, the console port connection the routers useEXEC Mode, routers priveledged EXEC mode, troubleshooting the router interface

**Unit VI** : Routing protocals: Static routing, Dynamic routing protocals, RIP, IGRP, OSPF, EIGRP, TFTP, analysing OSPF “helo” packets.

**Text Book** :

Jreffredy S.Beasely, “Networking” second edition. Pearson

**Reference Books** :

1. Bhushan Trivedi,”Computer Networks” OXFORD.

2. Andrew S.Tanenbaum,”Computer Networks” IV edition Pearson

3. Youlu Zheng, Shakil Akhtar, “Networks for computer Scientiests and

Engineers” OXFORD. 83 84

**FREE ELECTIVE - I**

**5FEIT05 (ii ) IT ETHICS & PRACTICES**

**Unit I** : An overview of Ethics, Ethics inm business world, Ethics in IT, Ethics for IT professionals and IT users, IT professionals, Ethical behaviour, IT professional malpractices, IT users.

**Unit II** : Computer and Internet Crime : IT security incidents : Increasing Complexity INcreases Vulnerabliligy, Higher Computer user Expectations, Expanding and changing systems. Introduces new risks,Increased Reliance on Comercial Software with known Vulnerabilites, Types of Attacks, Perpetrators, Reducing Vulnerabilites, Risk Assessment, Establishing a Security Policy, Educating Employees, contractors and part-time Workers,

Prevention, Detection, Response.

**Unit III** : Privacy: The right of Privacy, Recent History of Privacy Protection, Key Privacy and Anonimity issues, Governmental Electronic Surveilance, Data Encription, Identity Theft, Consumer Profling, Treating Consumer Data Responsiblity, Workplace Monitoring, Spamming, Advancd surveylance Technology, First Amendment Rights, Obsence Speech, Defamation, Freedom of Exprssion : Key issues, Controlling

Access to Information on the INternet, Antronimity, National, Security Letters, Defamation and Hate Speech.

**Unit** IV : Intellectual Property: Copyrights, Patents, Trade Secret Laws, Key Intelectual Property Issues, Plagiarism, Reverse Engineering, Open Source Code, Competitive Intelligence, Cybersquatting, Software Development, Strategies to Engineer Quality Software, The Importance of Software Quality, Software Development Process, Capability, maturity Model Integration for Software, Key isues in Software Development, Development of Safety-Critical Systems,Quality Management Standards.

**Unit V** : Employer/Employees Issues, Use of Nontraditional Woekrs, Contigent Workers H-IB Workrrs, Whistle-blowing, Prtotetion for Whistle-Blowers, Dealing with Whistle-Blowing Situation.

**Unit VI** : The impact of Information, Technology on the Quality of Life,

The inmpact of IT on the standard of Living and productivity, theDigital Divide, The impact of ITon Health care costs, Electronic Health Records, Use of Mobile andWireless Technology, Telemedicine. Medical INformation Wet Sites for lay people.ACM, AITP Association of INformation Technology Code of Ethics and Professional Conduct, Profesionals Code of Ethics, Softwar Enginering Code of Ethics and Professional Practice, PMI Member Ethical Stnadards and Member code of Ethics.

**Text Book** :

Geroge Raynolds, “Ethics in information Technology” Cengage Learning

**Reference Books** :

1. Deborah G.Johnson,”Computer Ethics”,3/e Persiaon Education.

2. Sara Baase, “A Gift of Fire: Social, Legal and Ethical Issues, for

Computing and the Internet,” PHI publications

3. Richard A.Spinello, “Case study in INformation Technology Ethics”,

second Edition PHI

4. Duncan Lanford “ Intenet Ethics”.

5. D.Micah Hester and Paul J. Ford “Computer and Ethics in the

Cyberage”.

**5IT08 COMMUNICATION SKILLS LAB:**

**Lab based on syllabus of 5IT08. Objective:** On completion of this laboratory the candidate should be ableto demonstrate adequate skills in oral and written communication fortechnical English language actively participate in group discussions andinterviews and exhibit the evidence of vocabulary building. Candidatesshould be accessed through continuous monitoring and evaluation. Thesample list of experiments is given below. This list can be used as guidelinefor problem statements but the scope of the laboratory should not belimited to the same. Aim of the list is to inform about minimum expectedoutcomes.

1. Assignments and tests for vocabulary building

2. Technical report writing

3. Group discussions

4. Interview techniques

5. Projects and tasks such as class news letter

6. Writing daily diaries and letters

7. Interactive language laboratory experiments.

**Test Book:** Norman Lewis: Word Power Made Easy

**5IT09 COMPUTER LAB- III (PHP)**

This laboratory shall be based on dynamic web content and CMS using PHP. Minimum eight programs based on the following topic:

i) Form Method

ii) Session Management

iii) Cookies Management

iv) CMS Management

v) MY SQL connectivity (Feet and Retrieve the value).

vi) Manage MY SQL using PHP my admin.

**Reference** :by Steven Holzner “PHP : The Complete Referance”

**SIXTH SEMESTER**

**6IT01 PRINCIPLES OF MANAGEMENT**

**Unit I : Introduction:** Definition and concepts of management, Importance

of management. Various management functions & control, responsibilities. Human resources planning, Decision-making, Trade unions & collective bargaining.

**Unit II :Organization planning, design and development:** Production

resources, Production planning, types of production system, production systems, production control.

**Unit III :** Product design & development: Introduction, design of the product, New product development; Material planning and control. Inventory control technique.

**Unit IV: Maintenance and system reliability:** Concepts and Objectives of

maintenance. Failure analysis, Reliability Maintenance system & Classification. Maintenance planning, TQM ISO 9000 and Quality audit.

**Unit V: Marketing management:** Introduction, marketing planning. Consumer behavior, product management, Pricing & promotion decision. Financial planning. Source of finance.

**Unit VI**: Project Management: Concepts and importance of project, Project implementation, MIS.MIS meaning and objectives. Types of data, methods of data collection, analysis and presentation of data. Editing, reporting and presentation of data, Decision options.

**Text Book:**

A.K.Gupta, J.K. Sharma: Management of Systems (Macmillan)

**Referance Books:**

1. Appleby: Modern Business Administration, 6/e (Macmillan)

2. Tritaphy & Reddy: Principals of Management, 2/e (TMH)

3. Gupta, Sharma et : Principales of Practices of Management (Kalyani)

**6IT02 DATABASE MANAGEMENT SYSTEMS**

**Unit I:** Database System Applications, Database Systems versus File Systems, View of Data, Data Models, Database Languages, Database Users and Administrators, Transaction Management, Database System Structure, Application architectures, History of Database Systems. Entity-Relationship Model, Basic Concepts, Constraints, Keys, Design Issues, Entity-Relationship Diagram, Weak Entity Sets, Extended E-R Features, Design of an E-R Database Schema, Reduction of an E-R Schema to Tables.87 88

**Unit II : Relational Model:** Structure of Relational Databases, The Relational Algebra, Extended Relational-Algebra Operations, Modification of the Database, Views, The Tuple Relational Calculus, The Domain Relational Calculus. Relational-Database Design:, First Normal Form, Pitfalls in Relational-Database, Design, Functional Dependencies, Decomposition, BCNF, Third, Fourth and more Normal Forms, Overall Database Design Process.

**Unit-III:SQL:** Basic Structure, Set Operations, Aggregate Functions, Null Values, Nested Sub queries, Views, Integrity and Security, Domain Constraints, Referential Integrity, Assertions, Triggers, Security and Authorization, Authorization in SQL, Encryption and Authentication,

**Unit-IV: Query Processing:** Overview, Measures of Query Cost, Selection Operation, Sorting, Join Operation, Other Operations, Evaluation of Expressions, Query Optimization: Overview, Estimating Statistics of Expression Results, Transformation of Relational Expressions, Choice of Evaluation Plans, Materialized Views.

**Unit-V: Transaction Management :** Transaction Concept, Transaction State, Implementation of Atomicity and Durability, Concurrent Execution, Serializability, Recoverability, Implementation of Isolation, Transaction Definition in SQL, Testing for Serializability.

**Unit-VI: Concurrency Control:** Lock-Based Protocols, Timestamp-Based Protocols, Validation-Based Protocols, Multiple Granularities, Multiversion Schemes, Deadlock Handling, Insert and Delete Operations Weak Levels of Consistency, Concurrency in Index Structures. Recovery System, issues & solutions.

**Text Book**:

Korth, Sudarshan : Database System Concept , Mc Graw Hill, 4th Edition

**Reference Books** :

1. Raghu Ramkrishnan :Database system

2. C.J.Date : Database System, 7th ed.

3. Connolly & Begg, : Database System,Low Price Ed.

**6IT 03 THEORY OF COMPUTATION**

**Unit I:** Alphabet, Language, Operations, Finite state machine, definitions, Finite automation model, Acceptance of strings and languages. Non deterministic finite automation, deterministic finite automationi, equivalence between NFA and DFA. Conversion of NFA into DFA, minimisation of FSM, equivalence two FSM’s, Moore and Melay machines.

**Unit II:** Regular sets, regular expressions, identity rules. Manipulation of

regular expressions, equivalence between RE and FA. Inter conversion, pumping lemma, Closure properties of regular sets (proofs not required), Regular grammers, right linear and left linear grammers, equivalence between regular linear grammer and F A inter conversion between RE and RG.

**Unit III:** Context free grammer, derivation trees, Chomsky normal form,

Greibach normal form, push down automata, definition, model, acceptance of CFL, equivalence of CFL and PDA, interconversion, enumeration of properties of CFL (proofs omited)

**Unit IV :** Turing machine, definition, model, design of TM, computable functions, recursive ensumerable language, Church’s hypothesis, counter machine, types of TM’s.

**Unit V:** Chomshy hierarchy of languages, linear bounded automata and

context sensitive language, introduction of DCFL and DPDA, LR (O), grammer, decidability of problems.

**UnitVI: Undecidability :** properties of recursive & non-recursive ensumarable languages, universal turing machine, postcorrespondance problem, introduction to recursive function theory.

**Text Books :**

1. Introduction to Automata Theory, Languages and Computation by

Hopcraft H.E. & Ulllman J.

2. An Introduction to Formal Languages and Automata by Peter Linz

(Chapter 1 to 12 except 6.3 & 7.4)

**Reference books** :

1. Introduction to Languages and the Theory of Automata by John

C.Martin.

2. Elements of Thoery of Computation by Lewis H.P. and Papadimition

C.H.

3. Theory of Computation by Mishra & Chandrashekharan.

**6IT04 COMPUTER NETWORKS**

**Unit I : Introduction to Computer network**, Uses, Hardware, Software,

reference Model, standardization, Physical Layer,Theoretical Basis for DC, Guided transmission Media, Wireless Transmission, communication satellite, Public Switched Telephone Network, Mobile Telephone System, Cable Television.89 90

**Unit II : Data Link Layers** : Design issues , , Error detection and correction, Elementary Data Link protocols, Sliding window Protocols, Protocol Verification, Example DL protocols.

**Unit III : MAC Sublayer** :Static and Dynamic channel allocation, Multiple

Access protocols, ALHOA, CSMA, Collision Free Protocols, Ethernet, Wireless LANS, Broadband Wireless, Blue tooth, Data Link Layer Switching.

**Unit IV : Network Layer**: Design Issues, Routing methods: Shortest path,floding, Link state, Distance vector routing and broadcast & multicast routing, Congestion control algorithms, quality of services ,internet working, network layer in the Internet .

**Unit V : The Transport Layer** : Service primitives, UDP: RPC,RTTP,TCP: TCP Services and Features, TCP segment format, TCP Connections, TCP Timers, performance issue.

**Unit VI : The Application Layer**: DNS, Electronic Mail, WWW, Multimedia:Voice over IP,H.323,Video on demand,The M-Bone.

**Textbook :**

**1:** Andrew S. Tanenbaum : Computer Networks , Fourth Edition,–

(Pearson)

**Reference Books :**

1. James F. Kurose & K W Ross: Computer Networking Pearson

Education (LPE)

2. Douglas E. Comer: Computer Network & Internet Addison Wesley.

3. Leon Garcia & Widjaja: Communication Networks TMH

4. William Stallings: Data & Computer Communication Pearson

Education

**FREE ELECTIVE - II**

**6FEIT05 (i) E-COMMERCE**

**Unit I :** E Commerce : The difference between E-commerce and Ebusiness,

Why study E-commerce? Eight unique features of Ecommerce Technology, Types of E-Commerce, Growth of the Internet and the Web, Origins and Growth of E-commerce, Ecommerce - A brief History.

**Unit II :** E-commerce Business Models and Concepts : E-Commerce

business Model-eight Key elements of a Business Model, Major Business-to-Consumer (B2C) Business Models, Major Business to -Business (B2B) Business Models: Business Models emerging in E-Commerce areas, How the Internet and the WEB change Business; Strategy, Structure and Process.

**Unit III :** E-Commerce Infrastructure : The Internet: Technology

Background, The Internet Today, Internet II; The future infrastructure, The World Wide Web, The Internet and the Web Features.

**Unit IV :** Building an E-Commerce Web Site : Building and E-Commerce

Wet Site- A strategic approach, Choosing Server Software, Choosing the Hardware for an E-Commerce site, Ohter Ecommerce Site Tools.

**Unit V :** Online Security and payment systems :The E-Commerce Security Environment, Security threads in the E-commerce environment, Technology solutions, Management Policies, business procedures and public laws, payment systems.

**Unit VI :** E-Commerce Marketing Concepts : Consumer online; The Internet Audience and Consumer behavior, Basic Marketing Concepts, Internet Marketing Technologies, B2C and B2C E=Commerce marketing and Branding strategies.

**Text Book** :

KenethC. Laudon, Carol Gurcio Trave”e-commerce, business, technology,

society” (Pearson)

**References:**

1. Dave Chaffley “E-Business and E-commerce management”(3rd Edition)

Pearson.

2. Kalkakofa Whirttoton, “Frontiers of E-Commerce” Pearson.

**FREE ELECTIVE - II**

**6FEIT05 (ii) KNOWLEDGE MANAGEMENT**

**Unit I** : Importance and knowledge management, key assumptions, The

knowledge’s society concept and critical evaluation, objectivist perspectives on knowledge, The knowledge-based theory of the firm, typo list of knowledge, an objectivist perspectives on sharing and management of knowledge, features of practice-based perspective, implications for nature of the organizational knowledge base, a practice-based perspective.

**Unit II** : Knowledge management, what is management, knowledge management and business strategy, conceptualizing the diversity of knowledge management strategies, The rises and defining knowledge worker, knowledge work and ambiguity, knowledge process in knowledge, intensive firms contrasting, perspective, learing and knowledge management, the heterogeity of learning, dynamics of organizational learning, the learning organization.

**Unit III** : Characterizing innovation, process, innovation as an interactive

process, knowledge creation and Nonaka, the social dynamic of innovation networking process, Conceptualizing organizational forgetting, barriers to unlearning.

**Unit IV:** The share/horad dinemma, the context of the employment

relationship, the ubiquity of conflict in business organizations and its impact, inter-personal trust, group identity, personality, communities of practice

**Unit V** : The significance and Characterilising cross community of knowledge process, identity, knowledge, trust and social relatins, a classification of boundary types, faciliting/managing knowledge between communities, to perspectives on power and the power/knowledge relationship, power and the resources and the critical discourse on knowledge management, power/ knowledge and the dialogical discourse on knowledge management

**Unit VI** : linking knowledge management ICTs, objectives visit and practice-based perpsepcties on ICT, the importance of accounting for socio-cultural factors in ICT,debates regarding the role of ICTs in knowledge management process, why cultural management and HRM practice are importance to knowledge management, the knowledge management, HRM,

staff retention, Leadership and knowledge management.

**Text Book** :

Donld Hislob-”Knowledge Management in Organizations”(Oxford)

**Reference Book** :

B.Muthukumaran-”Information Technology for Management” (Oxford)

**6IT07 COMPUTER NETWORKS LAB:**

Minimum 8 experiments/ Computer Programming based on the syllabus of

6IT04.

**6IT08 Computer Lab-IV (UML):** Sample practical’s list :

Study of basic notations of all types of UML diagrams.

1) Design state diagram for telephone system?

2) Design the use-case diagram for bank management system, having

deposit & withdraw is use case & clerk & customer is actor (assume

other parameter).

3) Design an object & class diagram for company as class & various

department & employee as an object.

4) Design the activity diagram for library system and prepare a plan.

5) Design a sequence diagram for online shopping & explain in details.

90 ( a ) 90 ( b )

6) Design a component diagram for building a house.

7) Design a collaboration diagram for hospital management system

**References Books :**

1) The Unified Modelling Language User Guide:Grady Booch, James

Rumbaugh, Ivar Jacobson

2) The Unified Modelling Language Reference Mannual:Grady Booch,

James Rumbaugh, Ivar Jacobson

**6IT06 DATABASE MANAGEMENT SYSTEMS LABORATORY**

The sample list of programs based on ORACLE or MY SQL is given below.

This list can be used as guideline for problem statements but the scope of

the laboratory should not be limited to the same. Aim of the list is to inform

about minimum expected outcomes.

1. Consider the employee database, where the primary keys are

underlined & Write the Queries using following clauses & also

retrieve the data from the given database.

Employee (employee-name,street,city)

Works (employee-name,company-name,salary)

Company (company-name,city)

Manages(employee-name,manager-name)

I) Order By II) Between III) Group By IV) Having

2. Consider the above database & perform the different Join Operations which are as follows.

I) Inner Join II) Left Outer Join

III) Right Outer Join IV) Full Outer Join

3. Consider the above database & Perform the different Set Operations Which are as follows.

I) Union II) Intersect III) Except/Minus

4. Consider the above database & perform the all Aggregate Functions.

5. Write an assertion for the bank database to ensure that the assets value for the ‘perryridge’ branch is equal to the sum of all amounts lent by the ‘perryridge’ branch.

Customer(customer-name, customer-street, customer-city)

Branch(branch-name, branch-city, asstes)

Loan(loan-number,branch-name,amount)

Borrower(customer-name,loan-number)

Depositor(customer-name, account-number)

Account(account-number,branch-name,balance)

6. Write an SQL trigger to carry out the following action: On delete of an account, for each owner of the account, check if the owner has any remaining accounts, and if she does not, delete her from the depositor relation.

7. Consider the above Bank database & write the SQL queries for

the following views:

I) A view containing the account numbers the customer names

for all accounts at the deer park branch.

II) A view containing the names and addresses of all customers

who have an account with the bank, but do not have a loan.

8. Mini Project Using Oracle 9i & VB6

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