3) Principles of Power Electronics, J.G.Kassakian, M.F.SchlechtG.C. Verghese, PEARSON Education 2010

4) M.D.Singh & K.B.Khanchandani : Power Electronics, Tata McGraw Hill, New Delhi.

Reference books :

1) Dr.P.S.Bimbhra : Power Electronics, Khanna Publisher, New Delhi.
2) P.C.Sen : Power Electronics, TMH Publication Co. Ltd., New Delhi.
3) H.C.Rai : Industrial and Power Electronics, Umesh Publication, New Delhi.
4) G.K.Dubey, S.R.Doradia, A.Joshi, R.M.Sinha : Thyristerised Power Controllers, New Age International, New Delhi.
5) Power Electronics, R.S.Ananda Murthyv. Natarasu, 2nd edition,2010

5EP 07 / 5EL07 / 5EE07 CONTROL SYSTEM - I - LAB.

Any TEN experiments based on contents of
5EP 01/ 5EL01 / 5EE01 CONTROL SYSTEM - I

6EP07 POWER ELETRONICS - I - LAB

Any TEN experiments based on contents of
6EP03 / 6EL03 / 6EE03 POWER ELECTRONICS

6EP08/ 6EL08/ 6EE08 COMPUTER AIDED MACHINE DESIGN - LAB

Any TEN experiments based on contents of
6EP04 / 6EL04/ 6EE04 ELECTRICAL MACHINES - II

6EP09 ELECTRICAL ENERGY UTILIZATION - LAB

Any TEN experiments based on contents of
6EP06 / 6EL06 / 6EE06 ELECTRICAL ENERGY UTILIZATION

DRAFT SYLLABUS PRESCRIBED FOR BACHELOR OF ENGINEERING (INFORMATION TECHNOLOGY)

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.”

5IT06 Operating Systems Lab:
Minimum 8 experiments based on the syllabus of 5IT01.

5 IT 02 DIGITAL INTEGRATED CIRCUITS

Unit-I: **Digital Integrated Circuits:** Special characteristics like fan-out, power dissipation, propagation delay & noise margin. Bipolar transistor characteristics. TTL and CMOS families. Simplification of Boolean functions: the K-Map method, two- & three-Variable maps, four-variable map, five-variable map. Tabulation method. Determination of prime implicants. Selection of Prime implicants.

Unit-II: **Combinational Logic:** introduction. design procedure. adders. sub tractors. code conversion. analysis procedure. Multilevel NAND circuits : universal gate, Boolean-function implementation. Multilevel NOR circuits: universal gate ,Boolean-function implementation. Exclusive-OR functions. Odd function. Parity generation & checking.

Unit-III: **MSI & PLD components:** introduction. Binary parallel adder, ,magnitude comparator,decoders & encoders.multiplexers. ROM.Various types of ROM.Programmable Logic Arrays. Programmable Array Logic – PAL,PLA & ROM

Unit-IV: **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. Design of counters: ripple counters, synchronous counters.

Unit-V: Design of Registers & shift registers. Random access memory (RAM).Memory decoding techniques.Hamming code.Algorithmic State Machines: introduction,ASM chart,timing considerations.Control implementation.Design with multiplexers.PLA control.

Unit-VI: **Fault detection and location in combinational circuits:** Path – Sensitizing method, Equivalent normal form method, Two level fault detection. Fault detection and location in sequential circuits: Circuit test approach, initial state identification, final state identification.

Text-Book :
1. Charles H.Roth, "Fundamentals of Logic Design" (JPH)
2. Samuel C. Lee, " Digital circuits and Logic Design(PHI)

Reference Books:
1. M.Morris Mano "Digital Design" (2/e) (PHI).

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 strucutre 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 comlete 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, CD-ROM systems.Communication devies:Modems.

Text-Book:
V.Carl Hamacher & S.Zaky " Computer Organization" (4/e) McGraw-Hill(ISE).

Reference Books:

1. Stallings. W. " Computer Organization & Arcitecture" (5/e) (Pearson Education).
2. Tenanbaum A.S." Structured Computer Organization" (5/e) (Pearson Education).
3. Hayes J.P." computer Architecture & Organization' (4/e) (McGraw-Hill).
4. Mano M. & Kime "Logic & Computer Design Fundamentals" (2/e) (Pearson Education).

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. (10 Hours)

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 day-to-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.

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 able to demonstrate adequate skills in oral and written communication for technical English language actively participate in group discussions and interviews and exhibit the evidence of vocabulary building. Candidates should be accessed through continuous monitoring and evaluation. The sample list of experiments 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. 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 (VC++)

This laboratory shall be based on MFC using VC++. Minimum eight programs based on the following:

i) MFC application creation

ii) Using dialog boxes

iii) Windows common controls

iv) Document / View architecture

v) Printing with MFC

Reference :J. Prosise: Programming Windows with MFC (Microsoft Press).

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.

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, SQL: Basic Structure, Set Operations, Aggregate Functions, Null Values, Nested Sub queries, Views.

Unit-III: Integrity and Security, Domain Constraints, Referential Integrity, Assertions, Triggers, Security and Authorization, Authorization in SQL, Encryption and Authentication, 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-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 between 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.

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 isseu.

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 E-business, Why study E-commerce? Eight unique features of E-Commerce Technology, Types of E-Commerce, Growth of the INternet and the WEb, Origins and Growth of E-commerce, E-Commerce - A brief History.

Unit II : E-commerce Business Models and Concepts : E-Commerce business Model-eigh Key elements of a Business Model, Major Business-to-Consumer (B2C) Business Models, Major Busiess to -Business (B2B) Business Models:Businss Models emerging inE-Commer areas, How the INternet and the WEB change Business; Strategy, Structure and Process.

Unit III : E-Commerce Infrastructure : The Internet: TEchnology Background, The Intenet Today, Intenet II; The future infrastructure,The World Wibe WEb, The Intenetand the Web Featurs.

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 E-Commerce 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 : Cosumer online; The INternet Audience and Consumer behaviour, Basic Marketing Concepts, INtrernet 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 knowledges society conkcept and critical evaluation, objectivist perspectives on knowledge, The knowledge-based theory of the firm, typolist of knowledge, an objectivist perspectivest on sharing nd 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 manaement, knowledge management and busines strategy, conceptulasing the divesity of knowledge management strategies, The rises and defining knowledge worker, knowledge work and ambiguity, knowledge process in knowledge, inensive frims contrasting, perspective, learing and knowledge management, the heterogeity of learing, dynamics of organizational learning, the learning organizaion.

Unit III : Characterising innovation, process, innovation as an interactive process, knowledge creation and Nonaka, the social dynamic

of innovation networking process, Conceptulizing organiztinal forgetting, barriers to unlearing.

Unit IV: The share/horad dinemma, the context of the employment relationship, the ubiquity of conflict in business organiztions 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 classlfication of boundary types, faciliting/managing knowledge between communities, to perspectives on power and the power/knowledge relationship,power and the resources nd the critical discourse on knowledge management,power/ knowledge and the dialogical discourse on knowlege 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.

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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