Course Code: **IT701**
Title of the Course: **Computer Networks**

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
4	1	0	5	4	3	10	10	80	100

Unit	Contents	Hours
I	**Introduction:-**Introduction, Computer networks & Distributed systems, Uses of Computer Networks, Network Hardware, Network Software, , Layered Architecture, The ISO OSI Reference Models, Protocols and Service Interface, Connection Oriented and Connection Less Service ,TCP/IP Protocol Stack.	9
II	**The Physical Layer:-**Guided Transmission Media, Wireless Transmission, Public Switched Telephone Network, Packet Switching, Message Switching & Packet Switching, ISDN Architecture. **Medium Access Control Sub layer:-**Introduction to MAC, LLC, Channel Allocation Problem, Multiple Access Protocols, Encoding Techniques, IEEE 802.3 Ethernet, IEEE 802.4 Token Bus, IEEE 802.5 Token Ring, Bluetooth, Connecting Devices: Repeater, Bridge, Hubs, Router, Gateways.	9
III	**The Data Link Layer:-**Introduction, Design Issues, Error Detection, Cyclic Redundancy Code, Error Correction, Hamming Distance Method, Elementary Data Link Protocols, Sliding Window Protocols	9
IV	**The Network Layer:-**Introduction**,** Design Issues, Routing Algorithms, Congestion Control Algorithms, Open Loop & Closed Loop algorithms, The IP Version 4 Protocol, IP Addresses, Subnetting, IP Version 6.	9
V	**The Transport and Application Layer:-**The Transport Service, Elements of Transport Protocols, UDP, TCP, Difference between TCP & UDP **Application Layer & Session Layer:** DNS, Electronic Mail, World Wide Web	9
Total		45

Text Book:
    1. Andrew Tanenbaum, "Computer Networks" 4th /5th Edition ,Prentice Hall Publications

Reference Books:
1. James F. Kuross, Keith W. Ross, "Computer Networking, A Top-Down Approach Featuring the Internet", 3rd Edition, Addison Wesley, 2004
2. Nader F. Mir, "Computer and Communication Networks", Pearson Education, 2007
3. Comer, "Computer Networks and Internets with Internet Applications", 4th Edition, Pearson Education, 2003
4. William Stallings, "Data and Computer Communication", 6th Edition, Pearson, Education, 2000

Course Code: **IT702**
Title of the Course: **Wireless communication**

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	1	0	4	3	3	10	10	80	100

Unit	Contents	Hours
I	Digital Modulation Techniques: Binary Phase-Shift Keying (BPSK), Differential Phase-Shift Keying, Quadrature Phase-Shift Keying (QPSK), Quadrature Amplitude Shift Keying (QASK), Binary Frequency-Shift Keying (BFSK), Similarity of BPSK and BFSK, M-ary FSK, Minimum Shift Keying (MSK).	9
II	Probability, random variables & stochastic processes, review of probability theory, random variables, probability density & distribution function, random processes, periodic processes stationary, auto correlation cross correlation applications to signal analysis	9
III	TDMA, FDMA, SDMA AND CDMA, Spread Spectrum, Direct sequence and frequency hopping, Slow and fast frequency hopping, Comparison of multiple access techniques	9
IV	GSM Architecture, Frequency Management & Channel Assignment. Hand Off & Dropped Calls. Frequency management, fixed channel assignment, non-fixed channel assignment, traffic & channel assignment. Why hand off, types of handoff and their characteristics, dropped call rates & their evaluation. Forward link and reverse link. CDMA system.	9
V	Information Theory and Coding: Discrete messages, The concept of amount of information, Entropy, Information rate, Shannon's theorem, Coding: Parity check bit coding for error detection, Coding for error detection and error correction, Block codes (coding and decoding), Convolution codes (coding and decoding),Comparison of error rates in coded and uncoded transmission, Hamming weight and Hamming Distance	9
Total		45

Text Book/s:
1. Mobile communication Engg- Lee W.C.Y
2. Wireless Communication, principles & practice-T.S.Rappaport
3. Digital Communication – Chitode, Tech Max Publication.

Reference Book/s:
1. Mobile communication", Pearson Education- Schiller.
2. Mobile & Wireless Communication by Vipul Dixit, Dhanpat Rai & Company.

Course Code: IT703
Title of the Course: Data Mining & Data Warehousing

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	1	0	4	4	3	10	10	80	100

Unit	Contents	Hours
I	**Data Warehousing**: Basic Concepts, Data Warehouse Design: Architecture, data marts, meta data repository, introduction to ETL process, Multidimensional data analysis, Data Warehouse Modeling: Data Cube, OLAP and OLAP operations, Different OLAP Servers, Data Warehouse Usage.	09
II	Data Mining : Need of data mining technique, Introduction to KDD process , A Multi-Dimensional View of Data Mining, Data Mining Functionalities Applications of data mining, classification of data mining techniques, Major Issues in Data Mining,	07
III	**Data objects and Preprocessing: Data** Objects and Attribute Types, **Data** Preprocessing: Data Cleaning, Data Integration and Transformation, Data Reduction, Data Discretization and Concept Hierarchy Generation. Basic Statistical Descriptions of Data, Data Visualization Measuring Data Similarity and Dissimilarity.	09
IV	**Classification and Association rule mining** Classification basics, supervised Vs unsupervised learning, and Prediction. Issues Regarding Classification and Prediction. Classification by Decision Tree Introduction: what is decision tree? Algorithm for Decision Tree Induction, Attribute Selection Measure, Extracting Classification Rules from Trees, Approaches to Determine the Final Tree Size, Enhancements to basic decision tree induction. Association rule mining : Basics, Mining single-dimensional Boolean association rules from transactional databases, Mining multilevel association rules from transactional databases Mining multidimensional association rules from transactional databases and data warehouse.	11
V	**Cluster analysis** Cluster Analysis: Introduction, applications of clustering, examples of clustering, requirements of clustering in data mining, A Categorization of Major Clustering Methods – Partitioning Methods – Hierarchical methods – Density: Based Methods – Grid: Based Methods – Model: Based Clustering Methods – Clustering, Outlier Analysis.	09
Total		45

Text Book/s:

1. Data Mining – Concepts and Techniques - Jiawei Han & Micheline Kamber, Morgan Kaufmann Publishers, Elsevier,2nd Edition, 2006.
2. Introduction to Data Mining – Pang-Ning Tan, Michael Steinbach and Vipin Kumar, Pearson education.

Reference Book/s:

1. Data Mining Techniques – Arun K Pujari,2nd edition, Universities Press.
2. Data Warehousing in the Real World – Sam Aanhory & Dennis Murray Pearson Edn Asia.
3. Insight into Data Mining,K.P.Soman,S.Diwakar,V.Ajay,PHI,2008.
4. Data Warehousing Fundamentals – Paulraj Ponnaiah Wiley student Edition.
5. Data Mining & Warehousing by Sunita Tiwari & Neha Choudhary Dhanpat Rai & Company.

Course Code: IT704/1
Title of the Course: Software Project Management (Ele-I)

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	0	0	3	3	3	10	10	80	100

Unit	Contents	Hours
I	Project Management: The management spectrum, the people, the product, the process, the project, the W5HH principle, critical practices Metrics for Process and Project: Metrics in the process and project Domains, software measurements, metrics for software quality, integrating metrics within software process, metrics for small organizations, establishing a software metrics program.	9
II	Estimation: Observations, Project planning Process, software scope and feasibility, resources, software project estimation, decomposition techniques, empirical estimation models, estimation for object oriented projects, estimation for Agile development and web engineering projects, the make/buy decision.	9
III	Project Scheduling: Basic concepts, project scheduling, defining a task set and task network, scheduling, earned value analysis. Risk Management: Reactive V/S proactive Risk Strategies, software risks, Risk identification, Risk projection, risk refinement, risk mitigation, monitoring and management, the RMMM plan **Quality Planning**: Quality Concepts, Procedural Approach to Quality Management, Quantitative Approaches to Quality Management, Quantitative Quality Management Planning, Setting the Quality Goal, Estimating Defects for Other Stages, Quality Process Planning, Defect Prevention Planning.	9
IV	Quality Management: Quality Concepts, Software Quality assurances, software reviews, formal technical reviews, Formal approaches to SQA, Statistical Software Quality assurances, Change Management: software Configuration Management, The SCM repository, SCM Process, Configuration Management for Web Engineering	9
V	**Project Execution And Closure: Reviews.** The Review Process, Planning, Overview and Preparation, Group Review Meeting, Rework and Follow-up, One-Person Review, Guidelines for Reviews in Projects, Data Collection, Analysis and Control Guidelines, Introduction of Reviews and the NAH Syndrome. **Project Monitoring and Control:** Project Tracking, Activities Tracking, Defect Tracking, Issues Tracking, Status Reports, Milestone Analysis, Actual Versus Estimated Analysis of Effort and Schedule, Monitoring Quality, Risk-Related Monitoring. **Project Closure:** Project Closure Analysis, The Role of Closure Analysis, Performing Closure Analysis.	9
Total		45

Text Book/s:
1. R. S. Pressman, Software Engineering, TMH, 7th ed.
2. Pankaj Jalote, Software project management in practice, Addison-Wesley

Reference Book/s:
1. B. Hughes & M. Cotterell, Software Project Management, TMH

Course Code:　　　　　　**IT704/2**
Title of the Course:　　　**Advance Computing Techniques (Ele- I)**

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	0	0	3	3	3	10	10	80	100

Unit	Contents	Hours
I	System models for Advanced Computing, clusters of cooperative computing, Software systems for advanced computing, services oriented software, Basics of parallel computing, cloud computing, grid computing, mobile computing, pervasive computing, Quantum computing. Advancement in system development using these computing techniques.	9
II	Cloud computing, SAAS, PAAS, IAAS, Administering & Monitoring cloud services, Deploy application over cloud. Virtualization Technology: Virtual machine technology, virtualization applications in enterprises, Pitfalls of virtualization Multitenant software: Multi-entity support, Multi-schema approach, Multitenance using cloud data stores, Data in the cloud, cloud security fundamentals.	9
III	Introduction to grid computing, Grid Architecture and Service modeling, Grid resource management, Grid Application trends. Grid Portals-First-Generation Grid Portals-Second-Generation Grid Portals. Grid monitoring architecture. Grid Scheduling with QoS. Basics of quantum computing, Benefits of grid computing.	9
IV	Mobile computing devices characteristics, architecture ,Adaptation – Data dissemination and management. Heterogeneity, Interoperability, Context awareness – Language localization issues – User interface design issues – Difference between UI design for mobile devices and conventional systems – Mobile agents – Security issues, Mobile device technology overview – Windows CE ,Symbian, J2ME, Pocket PC , BREW	9
V	Pervasive computing infrastructure-applications- Device Technology - Hardware, Human-machine Interfaces, Biometrics, and Operating systems– Device Connectivity – Protocols, Security, and Device Management-Pervasive Web Application architecture-Access from PCs and PDAs - Access via WAP	9
Total		45

Text Book/s:
 1. Cloud Computing: Principles and Paradigms, Editors: Rajkumar Buyya, James Broberg, Andrzej M. Goscinski, Wile, 2011.
 2. J. Joseph & C. Fellenstein: Grid Computing, Pearson Education.
 3. J. Burkhardt etaval : Pervasive Computing, Pearson Education.
 4. Stojmenovic and Cacute, "Handbook of Wireless Networks and Mobile Computing", Wiley, 2002, ISBN

Reference Book/s:
 1. "Fundamentals of Mobile and Pervasive Computing", ISBN: 0071412379, McGraw-Hill Professional, 2005.
 2. A networking approach to Grid Computing, Minoli, Wiley.
 3. Raj Kumar Buyya: High performance cluster computing, Person Education.
 4.Cloud computing, John W. Ritting House and James F. Ramsome.

Course Code: IT704/3
Title of the Course: **Information Retrieval System (Ele-I)**

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	0	0	3	3	3	10	10	80	100

Unit	Contents	Hours
I	Introduction: Definition, Objectives, Functional Overview, Relationship to DBMS, Digital libraries and Data Warehouses. Information Retrieval System Capabilities: Search, Browse, Miscellaneous	9
II	Cataloging and Indexing: Objectives, Indexing Process, Automatic Indexing, Information Extraction. Data Structures: Introduction, Stemming Algorithms, Inverted file structures, N-gram data structure, PAT data structure, Signature file structure, Hypertext data structure.	9
III	Automatic Indexing: Classes of automatic indexing, Statistical indexing, Natural language, Concept indexing, Hypertext linkages	9
IV	Document and Term Clustering: Introduction, Thesaurus generation, Item clustering, Hierarchy of clusters.	9
V	User Search Techniques: Search statements and binding, Similarity measures and ranking, Relevance feedback, Selective dissemination of information search, Weighted searches of Boolean systems, Searching the Internet and hypertext. Information Visualization: Introduction, Cognition and perception, Information visualization technologies.	9
Total		45

Text Book/s:
1. Kowalski, Gerald, Mark T Maybury: Information Retrieval Systems: Theory and Implementation, Kluwer Academic Press, 1997.
2. Information Storage & Retrieval By Robert Korfhage – John Wiley & Sons.

Reference Book/s:
1. Frakes, W.B., Ricardo Baeza-Yates: Information Retrieval Data Structures and Algorithms, Prentice Hall, 1992.
2. Modern Information Retrieval By Yates Pearson Education.

Course Code: IT704/4

Title of the Course: **System Analysis and Design (Ele-I)**

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	0	0	3	3	3	10	10	80	100

Unit	Contents	Hours
I	Introduction: System Analysis & Design concepts. Role of system analyst. Review of System DLC. Organization as systems. Levels of management culture. Project fundamentals. Feasibility study. Activity planning & control. Managing analysis & design activities.	9
II	Sampling and investigating hard data. Interviewing. Planning & conducting interview & reporting. Joint application design. Using questionnaires. Planning designing and administering the questionnaire	9
III	Conservation of a decision-makers behavior and office environment. Prototyping: User reactions. Approaches to prototyping & developing prototype. Data flow approach to requirements. Developing DFDs. Logical & Physical DFDs. Examples of DFDs.	9
IV	Data dictionary concept. Data repository. Creating & using data dictionary. Overview of process specifications. Structured English, Decision tables/trees. Decision support system & decision making concepts relevant to DSS. Semi structured decisions. Multiple-criteria decision-making	9
V	System Proposal : Ascertaining hardware/software needs. Identifying & forecasting cost/benefit & comparing cost/ benefit. Writing and presenting the systems proposals. Principles of Delivery. Output Design Objectives. Designing printed output, Screen output. Input Design objectives. Form Design. Screen Design for input.	9
Total		45

Text Book/s:

1. Kenneth E.Kendall & : "System Analysis and Design" Julie E.Kendall
(Pearson Education) 3/e
2. . Yeates "System Analysis & Design" (Macmillan)

Reference Book/s:
1. J.Fitgerald & A.Fitgerald. "Fundamentals of System Analysis & Design" (John-Wiley) 3/e
2. Edward "System Analysis & Design" (McGraw-Hill)
3. Whilten, Bentley, Barlow "System Analysis & Design Methods" (Galgotia) 2/e.

Course Code: IT705/1
Title of the Course: Digital Image Processing (Ele-II)

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	0	0	3	3	3	10	10	80	100

Unit	Contents	Hours
I	Image representation, fundamental steps in image processing, image model, Sampling & quantization. Neighbors of a pixel, connectivity and distance measures, Basic transformations and perspective transformations. Two dimensional Fourier transform Discrete Fourier transform and their properties, Fast Fourier transform, Walsh Transform, Hadamard transform and Discrete Cosine transform.	9
II	Image Enhancement : Intensity transformations, histogram processing, Image subtraction, image averaging, Spatial filtering smoothing and sharpening filters, frequency domain filtering methods low pass filtering, high pass filtering, medium filtering.	9
III	Image Compression : Redundancy and its types, Image compression model, variable length coding, bit plane coding, constant area coding, run length coding, lossless and lossy predictive coding, transform coding.	9
IV	Image restoration and Segmentation : Degradation model, effect of diagonalisation on degradation, algebraic approach. Detection of discontinuities by point, line and edge detection. Edge linking, graph theoretic techniques, thresholding techniques, region oriented segmentation.	9
V	Representation & Description: Chain codes, polygonal approximations, signatures, boundary segments, skeleton, boundary descriptors, shape descriptors regional descriptors, image morphology dilation, erosion, opening, closing, thickening, thinning, skeleton, pruning, hit or miss transform.	9
Total		45

Text Book/s:
1. R. C Gonzalez & Richard E Wood, "Digital Image Processing", Addison Wesley Publishing

Reference Book/s:
1. Anil K Jain, "Fundamentals of Digital Image Processing", PHI.
2. Sonka, Hlavac, Boyle, "Digital Image Processing and Computer".

Course Code: IT705/2

Title of the Course: Bioinformatics (Ele-II)

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	0	0	3	3	3	10	10	80	100

Unit	Contents	Hours
I	Basic Biology: What is life? The unity and the diversity of living things. Prokaryotes and Eukaryotes, Yeast and People, Evolutionary time and relatedness, Living parts: Tissues, cells, compartments and organelles, Central dogma of molecular biology, Concept of DNA, RNA, Protein and metabolic pathway.	9
II	What is Bioinformatics? Recent challenges in Bioinformatics. Biological databases: Classification and Presentation of Data. Quality of data, private and public data sources. General Introduction of Biological Databases; Nucleic acid databases (NCBI, DDBJ, and EMBL). Protein databases (Primary, Composite, and Secondary). Specialized Genome databases: (SGD, TIGR, and ACeDB). Structure databases (CATH, SCOP, and PDBsum)	9
III	Data generation; Generation of large scale molecular biology data. (Through Genome sequencing, Protein sequencing, Gel electrophoresis, NMR spectroscopy, X-Ray Diffraction, and microarray).Applications of Bioinformatics.	9
IV	Sequence Analysis: Theory and Tools: -Pairwise alignment – Different local and global search alignment, Heuristic searches (like BLAST) applicable to search against database, Multiple alignment algorithms, Whole genome comparison. Walk through the genome: Prediction of regulatory motifs, Operon, Gene, splices site, etc.	9
V	Markov models: Hidden Markov models – The evaluation, decoding and estimation problem and the algorithms. Application in sequence analysis. Molecular phylogeny: maximum Parsimony, distance Matrix and maximum likelihood methods. Concepts of adaptive evolution. Application of graph theory in Biology: Biochemical Pathway, Protein-protein interaction network, Regulatory network and their analysis	9
Total		45

Text Book/s:

1.   Bryan Bergeron, "Bio Informatics Computing", Pearson Education, Second edition, 2003.

2.   Bioinformatics: Sequence and Genome Analysis: David W. Mount, Cold Spring Harbor Laboratory   Press,U.S.; 2nd Revised edition

Reference Book/s:

1. T.K. Attwood and D.J. Perry Smith, "Introduction to Bio Informatics", Longman Essen, 1999.

2. Bioinformatics: A practical Guide to the analysis of Genes and Proteins. Third Edition, Wiley India Edition.

Course Code: IT705/3
Title of the Course: **Artificial Intelligence (Ele- II)**

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	0	0	3	3	3	10	10	80	100

Unit	Contents	Hours
I	Introduction: AI problems, AI technique, defining problem as a state space representation, problem characteristics, and production system characteristics. Heuristic search techniques: generate and test, hill climbing, best-first search, problem reduction, constraint satisfaction, means-ends analysis	9
II	Knowledge Representation : Issues, predicate & proposition resolution, representing knowledge using rules, frames & scripts, semantic networks, conceptual dependency, truth maintenance system	9
III	Reasoning techniques: Elementary search techniques - depth first search, breadth first search, forward & backward reasoning, winding unwinding, recursive & backtracking algorithm. Uncertainty Reasoning - probability theory, Bayesian networks, certainty factors methods, basics of fuzzy logic, non monotonic reasoning systems	9
IV	Game playing : Minimax search, alpha-beta cutoffs, planning - block world problems, STRIPS, hierarchical planning, nonlinear planning Natural language processing - Grammar & Language, Chomsky hierarchy, transformational grammar, case grammar, systematic grammar, semantic grammar, basic parsing technique, transition networks RTN, ATN, semantic analysis & representation structures, natural language generation	9
V	Learning : Block architecture of learning system, types of learning - rote learning, learning by taking advice, learning from example, learning by analog, Expert System - rule base architecture, non production system architectures, expert system shell, knowledge acquisition, knowledge system building tools	9
Total		45

Text Book/s:
   1. Artificial Intelligence by E. Rich & K. Knight (TMH Pub)

Reference Book/s:
   1. Introduction to Artificial Intelligence & Expert System by D.W. Patterson (PHI Pub.)
   2. Principles of Artificial Intelligence by Nilsson N.J. (Narosa Pub.)

Course Code: IT705/4

Title of the Course: Software Testing (Ele-II)

Course Scheme					Evaluation Scheme (Theory)				
Lecture	Tutorial	Practical	Periods/week	Credits	Duration of paper, hrs	MSE	IE	ESE	Total
3	0	0	3	3	3	10	10	80	100

Unit	Contents	Hours
I	Testing as an Engineering Activity – Role of Process in Software Quality – Testing as a Process – Basic Definitions – Software Testing Principles – The Tester's Role in a Software Development Organization – Origins of Defects – Defect Classes – The Defect Repository and Test Design – Defect Examples – Developer/Tester Support for Developing a Defect Repository.	9
II	Introduction to Testing Design Strategies – The Smarter Tester – Test Case Design Strategies – Using Black Box Approach to Test Case Design Random Testing Requirements based testing – positive and negative testing -–Boundary Value Analysis – decision tables - Equivalence Class Partitioning state-based testing– cause effect graphing – error guessing - compatibility testing – user documentation testing –domain testing Using White–Box Approach to Test design – Test Adequacy Criteria –static testing vs. structural testing – code functional testing - Coverage and Control Flow Graphs – Covering Code Logic – Paths – Their Role in White–box Based Test Design –code complexity testing – Evaluating Test Adequacy Criteria.	9
III	The Need for Levels of Testing – Unit Test – Unit Test Planning –Designing the Unit Tests. The Test Harness – Running the Unit tests and Recording results – Integration tests – Designing Integration Tests – Integration Test Planning – scenario testing –defect bash elimination -System Testing – types of system testing - Acceptance testing – performance testing - Regression Testing – internationalization testing – ad-hoc testing -Alpha – Beta Tests – testing OO systems – usability and accessibility testing	9
IV	People and organizational issues in testing – organization structures for testing teams –testing services - Test Planning – Test Plan Components – Test Plan Attachments – Locating Test Items – test management – test process - Reporting Test Results – The role of three groups in Test Planning and Policy Development – Introducing the test specialist – Skills needed by a test specialist – Building a Testing Group	9
V	Software test automation – skills needed for automation – scope of automation – design and architecture for automation – requirements for a test tool – challenges in automation Test metrics and measurements –project, progress and productivity metrics – Status Meetings – Reports and Control Issues – Criteria for Test Completion – SCM – Types of reviews – Developing a review program – Components of Review Plans– Reporting Review Results. – evaluating software quality – defect prevention – testing maturity model	9
Total		45

Text Book/s:

1. Srinivasan Desikan and Gopalaswamy Ramesh, " Software Testing – Principles and Practices",Pearson education, 2006.
2. Aditya P.Mathur, "Foundations of Software Testing", Pearson Education,2008.

Reference Book/s:

1. Boris Beizer, "Software Testing Techniques", Second Edition,Dreamtech, 2003
2. Elfriede Dustin, "Effective Software Testing", First Edition, Pearson Education, 2003.
3. Renu Rajani, Pradeep Oak, "Software Testing – Effective Methods, Tools and Techniques", Tata McGraw Hill, 2004.

Course Code: IT706
Title of the Course: Computer Networks

Course Scheme					Evaluation Scheme (Laboratory)		
Lecture	Tutorial	Practical	Periods/week	Credits	TW	POE	Total
0	0	3	3	2	25	25	50

Practical based on above mentioned Syllabus.

Course Code: IT707
Title of the Course: Wireless Communication

Course Scheme					Evaluation Scheme (Laboratory)		
Lecture	Tutorial	Practical	Periods/week	Credits	TW	POE	Total
0	0	3	3	2	25	25	50

Practical based on above mentioned Syllabus.

Course Code: IT708
Title of the Course: Software Technology Lab II

Course Scheme					Evaluation Scheme (Laboratory)		
Lecture	Tutorial	Practical	Periods/week	Credits	TW	POE	Total
0	0	3	3	2	25	25	50

Practical based on above mentioned Syllabus/recent technologies.

Course Code: IT709
Title of the Course: Project Phase I

Course Scheme					Evaluation Scheme (Laboratory)		
Lecture	Tutorial	Practical	Periods/week	Credits	TW	POE	Total
0	0	2	2	2	50	50	100

Project based on above mentioned Syllabus/recent technologies.