

DHANRAJ BAID JAIN COLLEGE

(Autonomous)

Thoraipakkam, Chennai – 600097

Affiliated to the University of Madras

DEPARTMENT OF COMPUTER SCIENCE

B.Sc. (Computer Science)



SYLLABUS
(Choice Based Credit System)

Total No. of Semesters: **6**

Total No. of Credits: **140**

SCHEME OF EXAMINATIONS

I YEAR – I SEMESTER

S.No.	Paper Title	Credit	Max. Marks			Hours
			Internal	External	Total	
1	English	3	20	80	100	5
2	Tamil	3	20	80	100	5
3	Mathematics	5	20	80	100	5
4	Programming in C	5	20	80	100	5
5	Application Lab : Programming. In C	4	20	80	100	5
	Soft Skill	2	20	80	100	2

I YEAR – II SEMESTER

S.No.	Paper Title	Credit	Max. Marks			Hours
			Internal	External	Total	
1	English	3	20	80	100	5
2	Tamil	3	20	80	100	5
3	Mathematics	5	20	80	100	5
4	Data structures and C++	5	20	80	100	5
5	Application Lab :Data structures and C++	4	20	80	100	5
	Soft Skill	2	20	80	100	2

II YEAR – III SEMESTER

S.No.	Paper Title	Credit	Max. Marks			Hours
			Internal	External	Total	
1	English	3	20	80	100	5
2	Tamil	3	20	80	100	5
3	Statistics	4	20	80	100	5
4	Digital & Computer Architecture	4	20	80	100	5
5	Programming in Java	4	20	80	100	5
6	Application Lab - Programming in Java	2	20	80	100	5
	Soft Skill	2	20	80	100	2

II YEAR – IV SEMESTER

S.No.	Paper Title	Credit	Max. Marks			Hours
			Internal	External	Total	
1	English	3	20	80	100	5
2	Tamil	3	20	80	100	5
3	Environmental studies	2	20	80	100	5
4	Visual Programming	3	20	80	100	5
5	Data base Management System	3	20	80	100	5
6	Statistics	3	20	80	100	5
7	Application Lab –Visual Programming and RDBMS	3	20	80	100	5
	Soft Skill	3	20	80	100	2

III YEAR – V SEMESTER

S.No.	Paper Title	Credit	Max. Marks			Hours
			Internal	External	Total	
1	Data Communication & Networks	4	20	80	100	5
2	Operating System	4	20	80	100	5
3	Elective –1	4	20	80	100	5
4	Web Technology	4	20	80	100	5
5	Practical – Operating system Lab	2	20	80	100	5
6	Practical – Web Application Lab	2	20	80	100	5

III YEAR – VI SEMESTER

S.No.	Paper Title	Credit	Max. Marks			Hours
			Internal	External	Total	
1	Software Engineering	4	20	80	100	5
2	Elective –2	4	20	80	100	5
3	Elective –3	4	20	80	100	5
4	XML & Web Services	4	20	80	100	5
5	Practical – Mini Project	2	20	80	100	5

6	Practical – XML	2	20	80	100	5
	Value Education	1	20	80	100	2

Electives

- 1.Unified Modeling Language
2. Client Server Computing
3. Programming in ASP.NET
4. Electronic Commerce
5. Web Graphics
6. Software Quality Management
7. Data Mining & Data Warehousing
8. Enterprise Resource Planning
9. Design and Analysis of Algorithm
- 10.Special Elective

COURSE CODE	COURSE TITLE	L	T	P	C
14M221A	PROGRAMMING IN C	5			5

UNIT	SYLLABUS
UNIT 1	C: Fundamentals, Character set – Identifier and keywords – data types – constants – variables declarations – Expressions – Statements – Arithmetic, Unary, Relational and logical, Assignment Conditional Operators – Library functions.
UNIT 2	Data input output functions – Simple C programs – flow of control – if, if-else, while, do-while, for loop, Nested control structures – Switch, break and continue, go to statements – Comma operator.
UNIT 3	Functions – Definition – Proto-types – Passing arguments – Recursions. Storage Class Automatic, External, Static, Register Variables – Multi-file programs.
UNIT 4	Arrays – Definition and Processing – Passing arrays to functions – Multi-dimension and Arrays and String. Structures – User defined data types – Passing structures to functions – Self-reference structures – Unions – Bit wise operations.
UNIT 5	Pointers – Declarations – Passing pointers to functions – Operation in Pointers - Pointers Arrays – Arrays of pointers – Structures and pointers – Files: Creating, Processing, Opening and a data file.

References:

1. B.W. Kernighan and D.M.Ritchie, The C Programming Language, 2nd Edition, PHI, 1988.
2. H.Schildt, C: The Complete Reference, 4th Edition TMH Edition, 2000.
3. Gottfried, B.S, Programming with C, Second Edition, TMH Pub. Co. Ltd., New Delhi 1996.
4. Kanethkar Y., Let us C, BPB Pub., New Delhi. 1999.

COURSE CODE	COURSE TITLE	L	T	P	C
14C221A	ALLIED MATHEMATICS — I	5			5

UNIT	SYLLABUS
UNIT 1	Matrices — Types of Matrices — Matrix Operations — Cayley Hamilton theorem — Eigen roots and Eigen vector — Inverse using Cayley Hamilton theorem (simple problems only).
UNIT 2	Set — Set operators — Cartesian products — Relations — Equivalence
UNIT 3	Trigonometry — $\sin\theta$, $\cos\theta$, $\tan\theta$ in terms of θ — Expansions of $\sin^n\theta$, $\cos^n\theta$ — Expansion of $\sin^n\theta$, $\cos^n\theta$
UNIT 4	Theory of equations — Polynomial equations with real coefficients, irrational roots, complex roots, transformation of equation by in increasing or decreasing roots by a constant, reciprocal equations, Newton's method to find a root approximately (Simple problems only).
UNIT 5	Differential Calculus — Jacobians concepts of polar coordinates — Curvature and radius of curvature in Cartesian co-ordinates (simple problems only).

Reference books:

1. Allied Maths — Vol 1 & 2, P.Duraipandian and S. Udayabaskaran, Muhil Pub, Chennai.
2. Allied Mathematics by P.R.Vittal, Margham Publishers, Chennai.

COURSE CODE	COURSE TITLE	L	T	P	C
14M222B	DATA STRUCTURE USING C++	5			5

UNIT	SYLLABUS
UNIT 1	Variables, Operators, Functions
UNIT 2	Classes and Objects, Inheritance, Polymorphism
UNIT 3	Data structure , Arrays, List
UNIT 4	Stacks ,Queues
UNIT 5	Trees and Graphs

BOOKS FOR STUDY

1. E.Balagurwamy – Object Oriented Programming with C++. TMH.
2. Robert Lafore - Object Oriented Programming in Microsoft C++- Galgotia.
3. E.Horowitz and S.Shani Fundamentals of Data Structures in C++, Galgotia Pub.1999.
4. Gregory L. Heileman – Data Structures, Algorithms and Object Oriented Programming – Mc Graw Hill International Editions 1996
5. A.V. Aho, J.D. Ullman, J.E. Hopcraft: Data Structures and Algorithms –Pearson
6. Sahni, Data Structure, algorithms and application, McGraw Hill, 2001.

COURSE CODE	COURSE TITLE	L	T	P	C
14C222B	ALLIED MATHEMATICS — II	6			5

UNIT	SYLLABUS
UNIT 1	Symbolic Logic - Logical Operations — Tautology and contradiction — Laws of Algebra of propositions.
UNIT 2	Normal Forms — Disjunctive normal form — conjunctive normal form — Principal conjunctive and principal disjunctive normal forms (Problems proved by truth tables only).
UNIT 3	Boolean Algebra — Boolean Algebra and its application simple problems only.
UNIT 4	Algebra — Partial fractions — Binomial and exponential and — simple problems.
UNIT 5	Integral Calculus — Integration — Definite integrals — Reduction formulae — Simple problems only.

Reference books:

1. Introduction to Discrete Mathematics, 2nd ed., N.K.Sen and B.C.Chakraborty books and allied private ltd, Kolkatta.
2. Allied Maths - Vol.1 & 2, P.Duraipandian and S.Udayabaskaran, Muhil Pub, Chennai.
3. Allied Mathematics by P.R.Vittal, Margham Publishers, Chennai.

COURSE CODE	COURSE TITLE	L	T	P	C
14C223C	STATISTICAL METHODS AND ITS APPLICATIONS	5			4

UNIT	SYLLABUS
UNIT 1	Nature and Scope of Statistical methods and their limitations – Classification - tabulation and diagrammatic representation of various types of statistical data - frequency curves — Ogives - Lorenz Curve.
UNIT 2	Measure of Location ~ Arithmetic Mean. Median. Mode. Geometric Mean - Harmonic Mean.
UNIT 3	Measure of Dispersion — Range, Mean Deviation. Quartile deviation. Standard deviation, coefficient of variation.
UNIT 4	Scatter diagram — Correlation — Regression lines — Rank Correlation Coefficient.
UNIT 5	Sampling from finite population — Simple random sampling. stratified and systematic random sampling procedures — Concepts of sampling and non—sampling errors.

BOOKS FOR STUDY AND REFERENCES:

1. Gupta. SP. Gupta MP. Business Statistics, 16th ed.. Sultan Chand &. sons, New Delhi.2010.
2. Pillai. RSN, Bagavathi, Statistics, S.Chand New Delhi,2010.
3. Vittal, PR, Business Statistics, Margaham Pub, Chennai,2010.

COURSE CODE	COURSE TITLE	L	T	P	C
14M223C	DIGITAL & COMPUTER ARCHITECTURE	5			4

UNIT	SYLLABUS
UNIT 1	Number System - Converting numbers from one base to another - Complements - Binary Codes - Integrated Circuits - Boolean algebra - Properties of Boolean algebra - Boolean functions - Canonical and Standard forms - Logical Operations - Logical gates - Karnaugh map up to 6 variables - Don't care condition - some of products and products of sum simplification - tabulation Method.
UNIT 2	Adder - Subtractor - Code converter - analyzing a combinational circuit - multilevel NAND and NOR circuits - properties of XOR and equivalence functions - Binary parallel Adder - Decimal Adder - Magnitude Comparator - Decoders - Multiplexers - ROM - PLA
UNIT 3	Analyzing a sequential circuit - state reduction - excitation tables - design of sequential circuits - counters - Design with state equation - registers - Shift Registers - Ripple and synchronous Counters.
UNIT 4	Memory unit - Central Processing Unit - General register and stack organizations, instruction formats - Input - Output Organisation - Peripheral devices, I/O interface, Asynchronous data transfer, modes of transfer, priority interrupt, direct memory access, I/O processor, serial communications.
UNIT 5	Memory organisation - memory hierarchy - main memory - auxiliary memory - associative, cache and virtual memory, memory management hardware - multi processors: interconnection structures, Inter-processor arbitration.

BOOKS FOR STUDY AND REFERENCES:

1. M M Mano, Computer System Architecture PHI (Third Edition) 1993.
2. V C Hamacher, G Vranesic, S G Zaky – Computer Organization, McGraw Hill, 1990.
3. J P Hates, Computer Architecture, McGraw Hill, ISE, 1988.

COURSE CODE	COURSE TITLE	L	T	P	C
14M223D	Programming in JAVA	5			4

UNIT	SYLLABUS
UNIT 1	Introduction to Java – Features of Java – Object Oriented Concepts – Lexical Issues – Data Types – Variables – Arrays – Operators – Control Statements
UNIT 2	Classes – Objects – Constructors – Overloading method – Access Control – Static and fixed methods – Inner Classes – String Class – Inheritance – Overriding methods – Using super – Abstract class
UNIT 3	Packages – Access Protection – Importing Packages – Interfaces – Exception Handling – Throws – Thread – Synchronization – Messaging – Runnable Interface – Inter thread communications – Deadlock – Suspending, Resuming and stopping threads – Multithreading.
UNIT 4	I/O Streams – File Streams – Applets – String Objects – String Buffer – Char Array – Java Utilities – Code Documentation.
UNIT 5	Networks basis – Socket Programming – Proxy Servers – TCP/IP Sockets – Net Address – URL – Datagram's – Working with windows using AWT Controls – Layout Managers and Menus

BOOKS FOR STUDY:

1. Cay S.Horstmann, Gary Cornell – Core Java 2 Volume I – Fundamentals, 5th Edn.PHI,2000.
2. P.Naughton and H.Schildt – Java2(The Complete Reference) Third Edition, TMH 1999.
3. K.Arnold and J.Gosling – The Java Programming Language – Second Edition, Addison Wesley

COURSE CODE	COURSE TITLE	L	T	P	C
14M224G	VISUAL PROGRAMMING	5			3

UNIT	SYLLABUS
UNIT 1	a Form – writing Simple Programs – Toolbox – Creating Controls – Name Property – Command Button – Access keys – Image Controls – Text Boxes – Labels – Message Boxes – Grid - Tools – Variables – Data Types – String – Numbers
UNIT 2	Displaying Information – Determinate Loops – Indeterminate Loops – Conditionals – Built in functions and Procedures
UNIT 3	Lists – Arrays – Sorting and Searching – Records – Control Arrays – Combo Boxes – Grid Control Projects with Multiple forms – Do Events and Sub Main – Error Trapping.
UNIT 4	VB Objects – Dialog Boxes – Common Controls – Menus – MDI Forms – Testing, Debugging and optimization – working with Graphics.
UNIT 5	Monitoring Mouse Activity – File Handling – File System controls – File System Objects – COM/OLE automation – DLL Servers – OLE Drag and Drop.

BOOKS FOR STUDY:

1. Gary Cornell – Visual Basic 6 from the Ground up – Tata McGraw Hill – 1999.
2. Noel Jerke – Visual Basic 6 (The Complete Reference) – Tata McGraw Hill –1999.

COURSE CODE	COURSE TITLE	L	T	P	C
14M224E	DATA BASE MANAGEMENT SYSTEM	5			3

UNIT	SYLLABUS
UNIT 1	Advantage and Component of a Database Management Systems – Feasibility study – Class Diagrams – Data Types – Events – Normal Forms – Integrity – Converting Class Diagrams to Normalized Tables – Data Dictionary.
UNIT 2	Query Basis – Computation Using Queries – Subtotals and GROUP BY Command Queries with Multiple Tables – Subqueries – Join – DDL & DML – Testing Queries.
UNIT 3	Effective Design of Forms and Reports – Form Layout – Creating Forms – Reports – Procedural Languages – Data on Forms – Programs to Retrieve and save database Handling
UNIT 4	Power of Application Structure – User Interface Features – Transaction – Forms Events – Custom Reports – Distributing Application – Table Operations
UNIT 5	Database Administration – Development Stages – Application Types – Backup and Recovery Security and Privacy

REFERENCES:

1. G.V.Post – Database Management Systems Designing and Building Business Application - McGraw Hill International edition – 1999.
 2. Raghuram Krishnan – Database Management Systems – WCB/McGraw Hill – 1998.
- C.J.Date – An Introducing to Database Systems – 7th Edition- Addison Wesley – 2000

COURSE CODE	COURSE TITLE	L	T	P	C
14C224D	NUMERICAL METHODS	5			3

UNIT	SYLLABUS
UNIT 1	Roots of Equations: Bisection Method — False- Position — Newton Raphson Method.
UNIT 2	Algebraic Equations: Gauss Elimination — Gauss-Jordan, Gauss— Seidel.
UNIT 3	Interpolation: Newton’s forward, Netwon’s backward, divided difference and Lagrange’s method.
UNIT 4	Numerical Differentiation — Integration: Trapezoidal Rule — Simpson’s Rule — Romberg Integration.
UNIT 5	Differential equation: Taylor’s Method — Euler’ Method — Rangepkutta 2"d and 4 th order methods.

Reference books:

1. Statistical Numerical Methods, PR Vittal, Margham publication, Chennai.
2. Numerical Methods for scientific and engineering computation, Jain MK, Iyengar, SRK, New age pub, New Delhi, 2010
3. Numerical methods for scientific and engineering computation, T.Veerarajan New age pub, New Delhi, 2010

COURSE CODE	COURSE TITLE	L	T	P	C
14M225J	DATA COMMUNICATION AND NETWORK	5			4

UNIT	SYLLABUS
UNIT 1	Introduction to data communication, network protocols & standards and standard organization line configuration – topology – Transmission mode – Classification of network – OSI model – layer of OSI model
UNIT 2	Parallel and serial Transmission – DTE/DCE/such as EIA-449, EIA-202 and X21 interface – Interface standards – Modems – Guided Media – Unguided Media – Performance – types of Error – Error Detection – Error corrections.
UNIT 3	Multiplexing – Types of Multiplexing – Multiplexing Application – Telephone system – Project 802 – Ethernet – Token Bus – Token Ring – FDDI – IEEE 802.6 – SMDS – Circuit Switching – Packet Switching – Message switching – Connection Oriented and Connectionless services.
UNIT 4	History of Analog and Digital Network – Access to ISDN – ISDN Layers – Broadband ISDN – X.25 Layers – Packet Layer Protocol – ATM – ATM Protocol.
UNIT 5	Repeaters – Bridges – Routers – Gateway – Routing algorithms – TCP/IP Network, Transport and Application Layers of TCP/IP – World Wide Web

BOOKS FOR STUDY:

1. Behrouz and forouzan - Introduction to Data Communication and Networking – 2nd Edition – TMH- 2001.
2. Jean Walrand – Communication Networks (A first Course) – Second Edition – WCB/McGraw Hill – 1998.

COURSE CODE	COURSE TITLE	L	T	P	C
14M225K	OPERATING SYSTEMS	5			4

UNIT	SYLLABUS
UNIT 1	Introduction Views – Goals – Types of system – OS Structure – Components – Service Structure – Layered Approach – Virtual Machines – Systems Design and Implementation Management: Process – Process Scheduling – Cooperating Process – Treads – InterProcess Communication CPU Scheduling: CPU Schedulers – Scheduling Criteria – Scheduling Algorithms.
UNIT 2	Process Synchronization Critical Section Problem – Synchronization Hardware – Classical Problems of Synchronization – Critical Region – Monitor. Deadlocks: Characterization method for Handling Deadlock Prevention – Avoidance – Detection – Recovery.
UNIT 3	Memory management: Address Binding – Dynamic Loading and Linking – Overlays and physical Address space – Contagious Allocation – Internal & External Fragmentation. Non-Contagious Allocation: Paging and Segmentation Schemes – Implementation – Hardware-protection – Fragmentation.
UNIT 4	Virtual Memory: Demand Paging – Page Replacement – Page Replacement Algorithm Thrashing. File System: File Concepts – Access Methods – Directory Structures – Protection Semantics – File System Structures – Allocation Methods – Free Space Management.
UNIT 5	Secondary Storage Protection – Goals – Domain – Access Matrix – The Security Problem – Authentication – Threats Monitoring – Encryption. Case studies :UNIX AND WINDOWS

BOOKS FOR STUDY AND REFERENCE

- Text 1.** A. Silbersschatz P.B. Galvin, Gange., “Operating System Concepts”, 6th Edn., Addrson Pub., Co., 2002.
- Reference:** H.M.Deitel, An Introduction to operating system, Second Edition, Addison Wesley, 1990.

COURSE CODE	COURSE TITLE	L	T	P	C
14M225H	WEB TECHNOLOGY	5			4

UNIT	SYLLABUS
UNIT 1	Internet Basic – Introduction to HTML – List – Creating Table – Linking document – Frame Graphics to HTML Doc – Style sheet basic – Add style to document - Creating style sheet rules – Style sheet properties – Font – Text – List – Color and background color – box – displaying properties.
UNIT 2	Introduction to JavaScript – Advantage of JavaScript – JavaScript Syntax –Datatype -variable – Array – Operator and Expression – Looping Constructor – Functions – Dialog box.
UNIT 3	JavaScript document object model – Introduction – Object in HTML – Events Handling - Windows Object – Document object – Browser Object – Form Object – Screen object - Navigator object – Build in Object – User defined object – Cookies.
UNIT 4	ASP.NET Language Structure – Page Structure – Page event, Compiler Directives. HTML server controls – Anchor, Tables, Forms, File server Controls – Label, Textbox, Button, Image, Links, Check & Radio button, Hyper link, Data List Web Server Controls – Check – Check box list, Radio button list, Drop down list, Data grid, Repeater
UNIT 5	Request and Response Object, Cookies, Working with Data – OLEDB connection class command class, transaction class, data adaptor class, data set class.

BOOKS FOR STUDY AND REFERENCE:

1. Bayross, Web Enable Commercial Application Development Using HTML, DHTML, Javascript, Perl CGI, BPB Publications,2000
2. J.Jaworski, Mastering Javascript, BPB Publications. 1999
3. T.A.Powell, Complete Reference HTML (Third Edition) TMH,2002
4. G.Buczek, ASP.NET Developers Guide, TMH, 2002.

COURSE CODE	COURSE TITLE	L	T	P	C
14M226M	XML AND WEB SERVICES	5			4

UNIT	SYLLABUS
UNIT 1	Role Of XML – XML and The Web – XML Language Basics – SOAP – Web Services – Revolutions Of XML – Service Oriented Architecture (SOA).
UNIT 2	XML – Name Spaces – Structuring With Schemas and DTD – Presentation Techniques – Transformation – XML Infrastructure.
UNIT 3	Overview Of SOAP – HTTP – XML-RPC – SOAP: Protocol – Message Structure – Intermediaries – Actors – Design Patterns And Faults – SOAP With Attachments
UNIT 4	Overview – Architecture – Key Technologies - UDDI – WSDL – ebXML – SOAP And Web Services In E-Com – Overview Of .NET And J2EE.
UNIT 5	Security Overview – Canonicalization – XML Security Framework – XML Encryption – XML Digital Signature – XKMS Structure – Guidelines For Signing XML Documents – XML In Practice.

TEXT BOOKS:

1. Frank. P. Coyle, XML, Web Services And The Data Revolution, Pearson Education, 2002.

REFERENCES:

- 1.Ramesh Nagappan , Robert Skoczylas and Rima Patel Sriganesh, “ Developing Java Web Services”, Wiley Publishing Inc., 2004.
- 2.Sandeep Chatterjee, James Webber, “Developing Enterprise Web Services”, Pearson Education, 2004.
- 3.McGovern, et al., “Java Web Services Architecture”, Morgan Kaufmann Publishers,2005.

COURSE CODE	COURSE TITLE	L	T	P	C
14M222B	DATA WAREHOUSING AND DATA MINING	5			4

UNIT	SYLLABUS
UNIT 1	<p>Data Mining</p> <p>Introduction - Data Mining – Data Mining Vs Query Tools – Practical applications of DM – Learning : Self, Machine, Concept – A Kangaroo in mist.</p>
UNIT 2	<p>KDD Environment</p> <p>Knowledge Discovery Process - Visualization Techniques – OLAP Tools – K-nearest neighbor – Decision Trees – Association Rules – Neural networks – Genetic algorithms – Setting up a KDD environment: Different forms of knowledge – KDD environment – Ten golden rules.</p>
UNIT 3	<p>Data Mining & Data Warehousing</p> <p>Introduction – Why Data Warehouse? – Designing Decision Support Systems – Integration with Data Mining – Client server & Data Warehousing – Multiprocessing machines – Cost Justification</p>
UNIT 4	<p>System Design & Architecture</p> <p>Data Warehousing – Types of Data, System, Process – Architecture – Database design – Partitioning – Aggregations – Data Marting – Metadata</p>
UNIT 5	<p><i>Tuning & Testing</i></p> <p>Capacity Planning – Tuning the Data Warehouse – Testing the Data Warehouse – Data Warehouse futures</p>

TEXT BOOKS

Pieter Adriaans Dolf Zantinge – “**Data Mining**”, Addison Wesley – 1996.
 Anahory S., Murray D. – “**Data Warehousing in the Real World**” – Addison Wesley – 1997

REFERENCE BOOKS

Jiawei Han, Micheline Kamber – “**Data Mining : Concepts & Techniques**” – Morgan Kaufmann Publishers – 2000.
 Inmon W. H. – “**Building the Data Warehouse**” – Wiley Dreamtech – 2002

COURSE CODE	COURSE TITLE	L	T	P	C
14M226L	SOFTWARE ENGINEERING	5			4

UNIT	SYLLABUS
UNIT 1	The Product – The Process – Project Management Concepts – Software Projects and Project Metrics.
UNIT 2	Software Project Planning – Risk Analysis and Management – Project Scheduling and Tracking Software Quality Assurance.
UNIT 3	Software Configuration Management – System Engineering – Analysis Concepts and Principles – Analysis Modeling.
UNIT 4	Design Concepts and Principles – Architectural Designs – User Interface Design
UNIT 5	Component Level Design – Software Testing Techniques – Software Testing Strategies – Techniques – Metrics for Software

BOOKS FOR STUDY AND REFERENCES:

1. R S Pressman – Software Engineering A Practitioner’s Approach – 5th Edition – McGraw Hill.
2. Ian Sommerville – Software Engineering – 5th Edition – Addison Wesley.

COURSE CODE	COURSE TITLE	L	T	P	C
14M22ZC	SOFTWARE QUALITY MANAGEMENT	5			4

UNIT	SYLLABUS
UNIT 1	Introduction to software Quality Hierarchical Models Quality Measurement Metrics Measurement
UNIT 2	Tools for quality Case Tools Defect Prevention & Removal Reliability Growth Models
UNIT 3	Testing for reliability measurement Software Testing Operational Profiles Estimating Reliability Software Risks
UNIT 4	UNIT IV TOPIC Software reliability and availability Standards and evaluation of process Software configuration management
UNIT 5	Technical metrics for software

TEXT BOOKS

Alan Gillies-Software Quality 'Theory and Management' International Thompson Computer Press-1997

REFERENCE BOOKS

Humphery-Managing software process Addison Wesley 1998.

Roser Pressman-Software Engineering MCGraw Hill 1997.