List of Courses Focus on Employability/ Entrepreneurship/ Skill Development

Department : *Computer Science and Engineering*

Programme Name : *B.Tech.*

Academic Year : 2016-17

List of Courses Focus on Employability/ Entrepreneurship/Skill Development

Sr. No.	Course Code	Name of the Course
01.	CSATES02	Fundamentals of Computer
02.	CS3TES02	Digital Logic & Design
03.	CS3TPC01	Object Oriented Programming with C++
04.	CS4TPC01	Data Communication and Networks
05.	CS4TPC02	Java Programming
06.	CS4TPC03	Data Structure & Programming Methodology
07.	CS3101	Microprocessor & Interfaces
08.	CS3102	Operating System
09.	CS3104	Parallel Computing
10.	CS3105	Formal Language & Automata Theory
11.	CS3201	Advance Programming Through Java
12.	CS3202	Computer Graphics
13.	CS3203	Software Engineering
14.	CS3204	RDBMS
15.	CS3205	Design & Analysis of Algorithm
16.	CS4201	Data Mining
17.	CS4202	GUI Programming (using VB.Net)
18.	CS4203	Artificial Intelligence & Expert Systems
19.	CS4205	Project
20.	CS4101	Compiler Design
21.	CS4102	Web Technologies
22.	CS4103	Network Security

Scheme and Syllabus

School of Engineering and Technology, Institute of Technology
GURU GHASIDAS VISHWAVIDHALAYA
(A CENTRAL UNIVERSITY ESTABLISHED BY THE CENTRAL UNIVERSITY ORDINANCE 2009, NO: 3 OF 2009)
STUDY & EVALUATION SCHEME
W.E.F. SESSION 2015-2016
B.Tech. I year Choice based Credit System (CBCS), Common to All Branches, Course – A

S. No.	Course No.	SUBJECT	PERIODS			EVALUATION SCHEME			CREDITS
			L	T	P	INTERNAL ASSESSMENT	ESE	SUB-TOTAL	
1.	ENATHS01	Professional Communication in English	3	0	0	40	60	100	3
2.	CHATBS01	Engineering Chemistry	3	0	0	40	60	100	3
3.	MEATES01	Engineering Mechanics	3	1	0	40	60	100	4
4.	CSATES02	Fundamentals of Computer	3	1	0	40	60	100	4
5.	EMATBS02	Engineering Maths - I	3	0	0	40	60	100	3
		Total	15	02	0	200	300	500	17
		PRACTICALS							
1.	CHALBS01	Engineering Chemistry Lab	-	-	03	30	20	50	2
2.	MEALES01	Engineering Mechanics Lab	-	-	03	30	20	50	2
3	MEALES03	Engineering Drawing			03	30	20	50	2
		Total			09	90	60	150	06

Total Work Load / week : 26 Total Credit : 23 Total Marks : 650

Computer Science and Engineering
Institute of Technology
Guru Ghasidas Vishwavidyalaya C.G.
CBCS (With Effect from 2016-17)

Sem- III

S.No.	Subject Code	Subjects	Period /week			Evaluation Scheme			Total Credit
			L^1	T^2	P^3	IA	ESE	TOTAL	
1	CS3THS01	Engineering Economics	3	0	0	40	60	100	3
2	CS3TES01	Electronic Devices and Circuits	3	1	0	40	60	100	4
3	CS3TES02	Digital Logic & Design	3	1	0	40	60	100	4
4	CS3TBS01	Engineering Mathematics- III	3	0	0	40	60	100	3
5	CS3TPC01	Object Oriented Programming With C++	3	1	0	40	60	100	4
		PRACTICAL							
1	CS3LPES01	Electronic Devices and Circuit Lab	0	0	3	30	20	50	2
2	CS3LPES02	Digital Logic & Design Lab	0	0	3	30	20	50	2
3	CS3LPPC01	Object Oriented Programming with C++ Lab	0	0	3	30	20	50	2
					Total Credits			650	24

IA- Internal Assessment , ESE – End Semester Examination

Sem- IV

S.No.	Subject Code	Subjects	Period /week			Evaluation Scheme			Total Credit
			L^1	T^2	P^3	IA	ESE	TOTAL	
1	CS4TPC01	Data Communication and Networks	3	1	0	40	60	100	4
2	CS4TPC02	Java Programming	3	1	0	40	60	100	4
3	CS4TPC03	Data Structure & Programming Methodology	3	1	0	40	60	100	4
4		Open Elective - I	3	0	0	40	60	100	3
5		Open Elective - II	3	0	0	40	60	100	3
		PRACTICAL							
1	CS4LPPC01	Data Communication and Networks Lab	0	0	3	30	20	50	2
2	CS4LPPC02	Java Programming Lab	0	0	3	30	20	50	2
3	CS4LPPC03	Data Structure & Programming Methodology Lab	0	0	3	30	20	50	2
					Total Credits			650	24

IA- Internal Assessment , ESE – End Semester Examination

Open Elective Subjects		
S.No.	Subject Code	Subject
01	CS4TOE01	System Software
02	CS4TOE02	Computer Organization & Architecture
03	CS4TOE03	Discrete Mathematics and Fuzzy Techniques
04	CS4TOE04	System Analysis and Design

Department of Computer Science & Engineering

SEMESTER-V

S.NO	CODE NO.	SUBJECT	PERIODS			EVALUATION SCHEME			CREDITS
			L	T	P	IA	ESE	TOTAL	
1	CS3101	Microprocessor And Interfaces	3	1	-	40	60	100	4
2	CS3102	Operating System	3	1	-	40	60	100	4
3	CS3103	Computer Oriental Numerical Method	3	1	-	40	60	100	4
4	CS3104	Parallel Computing	3	1	-	40	60	100	4
5	CS3105	Formal Language & Automata Theory	3	1	-	40	60	100	4
		PRACTICAL							
1	CS3106	CONM Lab	-	-	3	30	20	50	2
2	CS3107	Operating System Lab	-	-	3	30	20	50	2
3	CS3108	Microprocessor Lab	-	-	3	30	20	50	2
		TOTAL	15	5	9			650	26

IA – Internal Assessment

ESE – End Semester Examination

49

Scanned with CamScanner

Department of Computer Science & Engineering

SEMESTER-VI

S.NO.	CODE NO.	SUBJECT	PERIODS			EVALUATION SCHEME			CREDITS
			L	T	P	IA	ESE	TOTAL	
1	CS3201	Advance Programming Through Java	3	1	-	40	60	100	4
2	CS3202	Computer Graphics	3	1	-	40	60	100	4
3	CS3203	Software Engineering	3	1	-	40	60	100	4
4	CS3204	RDBMS	3	1	-	40	60	100	4
5	CS3205	Design And Analysis Of Algorithm	3	1	-	40	60	100	4
	PRACTICAL								
1	CS3206	Computer Graphics Lab	-	-	3	30	20	50	2
2	CS3207	RDBMS Lab	-	-	3	30	20	50	2
3	CS3208	Java Programming Lab	-	-	3	30	20	50	2
		TOTAL	15	5	9			650	26

A- Internal Assessment

SE - End Semester Examination

57

SCHEME FOR EXAMINATION
B.TECH (FOUR YEAR) DEGREE COURSE
FOURTH YEAR, COMPUTER SCIENCE AND ENGINEERING

SEMESTER- VII

S.N.	Code No.	Subject	Periods			Evaluation scheme			Credits
			L	T	P	IA	ESE	TOTAL	
1	CS4101	Compiler Design	3	1	-	40	60	100	4
2	CS4102	Web Technologies	3	1	-	40	60	100	4
3	CS4103	Network Security	3	1	-	40	60	100	4
4		Open Elective - I	3	1	-	40	60	100	4
5		Professional Elective - I	3	1	-	40	60	100	4
	Practical								
1	CS4104	Compiler Design	-	-	3	30	20	50	2
2	CS4105	Network Security	-	-	3	30	20	50	2
3	CS4106	Project (to be cont. in VIII Sem)	-	-	3	30	20	50	2
4	CS4107	Vocational Training (Viva -Cum-Seminar)					50	50	2
		TOTAL	15	5	9			700	28

IA- Internal Assessment
ESE – End Semester Examination

SCHEME FOR EXAMINATION
B.TECH (FOUR YEAR) DEGREE COURSE
FOURTH YEAR, COMPUTER SCIENCE AND ENGINEERING

SEMESTER- VIII

S.N	Code no.	Subject	Periods			Evaluation scheme			Credits
			L	T	P	IA	ESE	TOTAL	
1	CS4201	Data Mining	3	1	-	40	60	100	4
2	CS4202	GUI Programming (using VB.Net)	3	1	-	40	60	100	4
3	CS4203	Artificial Intelligence & Expert Systems	3	1	-	40	60	100	4
4		Professional Elective - II	3	1	-	40	60	100	4
	Practical								
1	CS4204	GUI Programming Net (using VB.Net)	-	-	3	30	20	50	2
2	CS4205	Project	-	-	12	90	60	150	6
		TOTAL	12	4	15			600	24

IA- Internal Assessment
ESE – End Semester Examination

	Credits	L	T	P
~~ES02~~ CSATES02	4	3	1	0

CSATES02- FUNDAMENTALSOF COMPUTER

Unit I: *Number Systems*

Introduction Decimal Number System , Binary Number System, Conversion of Binary Number to Decimal Number , Conversion of Decimal Number to Binary Number System, Addition of Binary Numbers ,Binary Subtraction , Use of Complements to Represents Negative Numbers , Conversion of Binary Fraction to Decimal Fraction , Conversion of Decimal Fraction to Binary Fraction System, Octal Number System, Hexadecimal Number System, Binary Coded Decimal (BCD Codes), EBCDIC Code, Gray Codes.

Unit II: Central Processing Unit (CPU) & Memory

Introduction, CPU Organization, Addressing Modes, Interrupts & Exceptions , Organization Of Intel-8085 Microprocessor.

Memory: Primary Memory, Secondary Memory, Cache Memory, Virtual Memory, Registers.

Unit III: Introduction to Programming Language

Introduction to Programming Language : Low Level Programming Language, High Level Language, Fourth Generation Language, Introduction to Software, Application Software and System Software, Compiler, Interpreter, Assembler, Device Driver.

Unit IV: Operating Systems

Definition, Functions and Objective, Evolution of Operating System, Batch Processing, SPOOLING, Multiprogramming, Multiprocessing, Time Sharing, Real Time Processing.

Unit V: Algorithm and Flowchart

Introduction to Algorithm and Characteristics, Introduction to Flow Chart: Symbols, Rules of Drawing Flow Chart, Advantage and Limitation of Flow Chart, Decision Tables.

Reference Books:

1) Computer Fundamentals by P.K.Sinha.

2) Computer Fundamental by B.Ram

3) Fundamental of Computers by V.Rajaraman.

4) Fundamental of Computers & Programming with C by A.K.Sharma.

Department of Computer Science & Engineering, IT, GGV, Bilaspur (Chhattisgarh) India

Class: **Bachelor of Technology Third Semester Computer Science and Engineering**
Subject Name: **Digital Logic & Design**
Subject Code: **CS3TES02**

Unit I:

BINARY SYSTEM: Binary Number , Number Base conversion , Octal and Hexadecimal Numbers Complements, Binary Codes Binary Storage and Registers , Binary Logic , Integrated Circuits.

BOOLEAN ALGBRA AND LOGIC GATES:

Basic Definitions, Axiomatic Definition of Boolean algebra. Basic Theorems and Properties of Boolean algebra, Boolean Functions, Canonical and Standard Forms. Other Logic Operations: Digital Logic Gates. IC - Digital Logic Families, NAND, NOR, Ex-OR gates.

Unit II:

BOOLEAN FUNCTIONS: K-map, Two and Three Variable K-Maps, Four Variable K-Map, Five Variable K-Map, Six Variable K-Map, Product of sums(POS) and Sum of Product(SOP) Simplification, NAND and NOR implementation, K-map using Don't Care Conditions, The Tabulation Method.

COMBINATIONAL LOGIC: Introduction, Design procedure Adders, Sub- tractors, Code Conversion, Analysis Equivalence Functions.

Unit III:

COMBINATIONAL LOGIC WITH MSI AND LSI: Introduction Binary Parallel Adder, Decimal, Adder, Magnitude Comparator, Decoders, Multiplexers, Read Only Memory (ROM), Programmable Logic Array (PLA).

Unit IV:

SEQUENTIAL LOGIC: Introduction, Flip –Flops, triggering of Flips –Flops, Analysis of Clocked Sequential Circuits, State Reduction and Assignment. Flip –Flop Excitation Tables Design Procedure, Design of Counters, Design with State Equations.

Unit V:

REGISTERS, COUNTERS, MEMORY UNIT & FPGA PROGRAMING Introduction, Registers, Shift Registers, Ripple Counters, Synchronous Counters, Timing Sequences, The Memory Unit Examples of Random Access Memories, FPGA: Introduction, FPGA Programming.

Reference Books:

1. Digital Logic & Computer Design, M. Mano (PH1) .
2. Switching Circuit & Finite automata –ZVI Kohavi (TMH).
3. Fletcher W.I.: An engineering approach to Digital Design (PH1)

Class: **Bachelor of Technology Fourth Semester Computer Science and Engineering**
Subject Name: **Java Programming**
Subject Code: CS4TPC02

UNIT-I

Object Oriented Paradigm, Basic Concepts of Object-Oriented Programming, Benefits of OOP, Applications of OOP, Java History, Java Features, How Java Differs from C and C++, Java and Internet, Java and World Wide Web, Web Browsers, Hardware and Software Requirements, Java Support Systems, Java Environment, Java Program Structure, Java Tokens, Java Statements, Installing and Configuring Java, Implementing a Java Program, Java Virtual Machine, Command Line Arguments, Programming Style.

Unit-II

Constants, Variables and Data Types, Declaration of Variables, Giving values to variables, Scope of Variables, Symbolic Constants, Type Casting, Getting Values of Variables, Standard Default Values, Java Operators, Arithmetic Expression, Evaluation of Expressions, Precedence of Arithmetic Operators, Operator Precedence and Associativity , Mathematical Functions, Control Statements (if statement, switch statement and Conditional operator statement), Decision Making and Looping (while construct, do construct, for construct), Jumps in Loops, Labelled Loops.

Unit-III

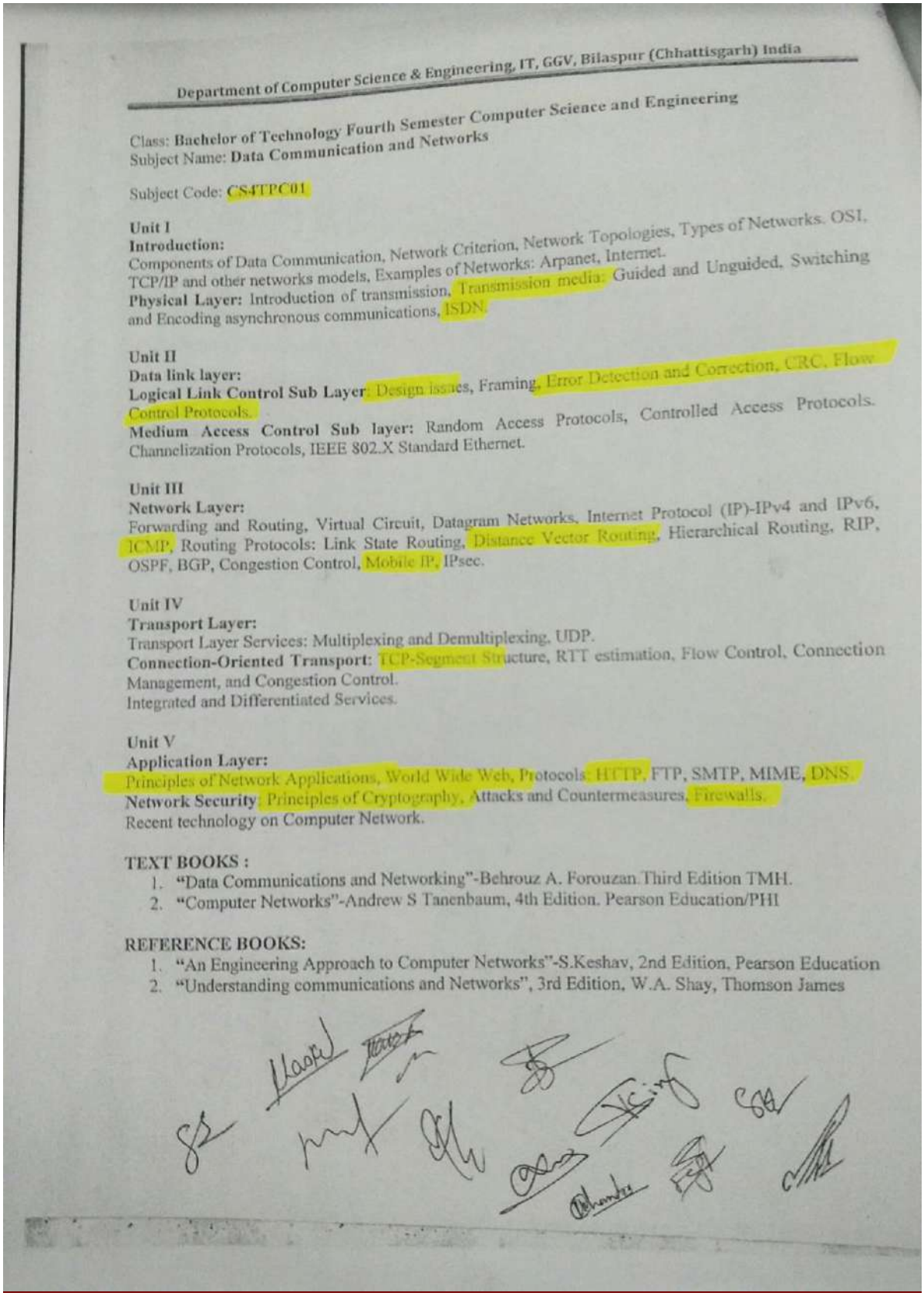
Introduction of Class, Defining a Class, Fields Declaration, Creating Objects, Accessing Class Members, Constructors, Methods Overloading, Static Members, Nesting of Methods, Inheritance : Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Finalizer Methods, Abstract Methods and Classes, Methods with VARARGS, Visibility Control, Introduction of Array, One Dimensional Array, Creating an array, Two-Dimensional arrays, Strings, Vectors, Wrapper Classes, Enumerated Types. Defining Interfaces, Extending Interfaces, Implementing Interfaces, Accessing Interface Variables, Java API Packages, Using System Packages, Naming Conventions, Creating Packages, Accessing a Package, Using a Package, Adding a Class to a Package, Hiding Classes, Static Import.

Unit-IV

Introduction to Multithreaded Programming, Difference between Multithreading and Multitasking, Creating threads, Extending the thread class, Stopping and Blocking a thread, Life Cycle of a thread, Using thread Methods, Thread Exception, Thread Priority, Synchronization, Implementing the Runnable Interface, Inter-thread Communication, Types of Errors, Exceptions, Syntax of Exception Handling Code, Multiple Catch Statements, Using Finally Statement, Throwing our own Exceptions.

Unit-V

Introduction of Applet Programming, How Applets Differ from Applications, Preparing to Write Applets, Building Applet Code, Applet Life Cycle, Creating an Executable Applet, Designing a Web Page, Applet Tag, Adding Applet to HTML file, Running the Applet, Attributes of Applet tag, Passing Parameters to Applets, Aligning the Display, Displaying Numeric values, Getting input from the user, Event handling, Introduction of Graphics Programming, Using Graphics class to draw Lines, Rectangles, Circles, Ellipses, Arcs, Polygons, Line Graphs, Bar Charts, Using Control Loops in Applets, Introduction to AWT package, Introduction of Input / Output files in Java, Concept of Streams, Stream



Department of Computer Science & Engineering, IT, GGV, Bilaspur (Chhattisgarh) India

Class: **Bachelor of Technology Fourth Semester Computer Science and Engineering**
Subject Name: **Data Communication and Networks**

Subject Code: CS4TPC01

Unit I
Introduction:
Components of Data Communication, Network Criterion, Network Topologies, Types of Networks. OSI, TCP/IP and other networks models, Examples of Networks: Arpanet, Internet.
Physical Layer: Introduction of transmission, Transmission media: Guided and Unguided, Switching and Encoding asynchronous communications, ISDN.

Unit II
Data link layer:
Logical Link Control Sub Layer: Design issues, Framing, Error Detection and Correction, CRC, Flow Control Protocols.
Medium Access Control Sub layer: Random Access Protocols, Controlled Access Protocols. Channelization Protocols, IEEE 802.X Standard Ethernet.

Unit III
Network Layer:
Forwarding and Routing, Virtual Circuit, Datagram Networks, Internet Protocol (IP)-IPv4 and IPv6, ICMP, Routing Protocols: Link State Routing, Distance Vector Routing, Hierarchical Routing, RIP, OSPF, BGP, Congestion Control, Mobile IP, IPsec.

Unit IV
Transport Layer:
Transport Layer Services: Multiplexing and Demultiplexing, UDP.
Connection-Oriented Transport: TCP-Segment Structure, RTT estimation, Flow Control, Connection Management, and Congestion Control.
Integrated and Differentiated Services.

Unit V
Application Layer:
Principles of Network Applications, World Wide Web, Protocols: HTTP, FTP, SMTP, MIME, DNS.
Network Security: Principles of Cryptography, Attacks and Countermeasures, Firewalls.
Recent technology on Computer Network.

TEXT BOOKS :
1. "Data Communications and Networking"-Behrouz A. Forouzan.Third Edition TMH.
2. "Computer Networks"-Andrew S Tanenbaum, 4th Edition. Pearson Education/PHI

REFERENCE BOOKS:
1. "An Engineering Approach to Computer Networks"-S.Keshav, 2nd Edition, Pearson Education
2. "Understanding communications and Networks", 3rd Edition, W.A. Shay, Thomson James

Department of Computer Science & Engineering, IT, GGV, Bilaspur (Chhattisgarh) India

Class: **Bachelor of Technology Fourth Semester Computer Science and Engineering**
Subject Name: **Data Structure and Programming Methodology**
Subject Code: **CS4TPC03**

Unit I:

String algorithms, pattern search and editing, Arrays algorithms, development simple examples of algorithm development, Complexity Analysis, Divided & conquer, binary search, selection sort, insertion sort, merge sort, quick sort complexity of sorting.

Unit II:

Linear list: Stacks, application of Stacks, arithmetic notations, recursion, queues and circular queues, Linked list definition, insertion and deletion of nodes, circular and doubly linked list, Header nodes.

Unit III:

Trees, AVL trees, Threaded trees, Heap sort, B-tress.

Unit IV:

Graph and representation: graph algorithms, optimization and Greedy methods, minimum spanning tree, shortest path, DFS, BFS search, hashing.

Unit V:

Files: File organization, sequential file, direct file organization, index sequential file organization, Data storage and management.

Reference Books:

1. Data Structures and Algorithm Analysis in C++, 2/e by Mark Allen Weiss, Pearson Education.
2. Wirth Niclaus , "Algorithm + Data Structure = Programs " PHI
3. Horwitz E. and Sahani S. "Fundamentals and Data Structure ", Computer Science Press.
4. Knuth D. "Threat of Computer Programming ", Vol 1-2 Addision – Wesley.
5. Aho A.V.Hopcraft and Ullman J.E. "Data Structure and Algorithms" addsion Wesley ".
6. Tanonbaum , A. M. and Augenstein , M.J. "Data Structure with Pascal" PHI.
7. Trambley and Sorenson "Data Structure using Pascal", MGH.
8. Stubbs D. "Data Structure with Abstract Data Type and Modula 2", Brooks & Cole Publication Comp.

Class: **Bachelor of Technology Third Semester Computer Science and Engineering**
Subject Name: **Object Oriented Programming with C++**
Subject Code: **CS3TPC01**

Unit I

Principles of OOP – Procedure Oriented Programming Paradigm , OOP Paradigm, Basic Concepts of OOP, Benefits of OOP, Object Oriented Languages. Benefit and limitations of Procedure Oriented Programming.ccp

Beginning With C++ : Characters used in C++, C++ Tokens, Identifiers , Keywords , Constants , Variables , ' Basic Data Types, Input / Output Statements ,Structure of C++ Program, Compilation and Linking Process.

Unit II

Operations and Expressions - Arithmetic Operations And Expressions, Relational And Logical Operators and Expressions ,Order of Evaluation of Expressions ,Type Conversion , Compound Assignment Operator ,Standard Library Functions and Header Files.

Flow of Control and Storage Classes – Concept of Variable Scope and Visibility, Auto, Extern, Static and Register and their comparisons, Compound Statement , Sequential Structure ,Selection Structure ,Simple If, If ... Else Nested If , Ladder ,Misplaced Else ,Switch , Go To , Loop Structure , Do ... While ,For , Statement Break , Continue , Function Exit ( )

Unit III

Array and Function - Concept of Array, Concept of Subprogram, Parameter Passing in Function, Function Prototype, Calling Function, Call by Value, Call by Reference, Array Parameters, Default Argument, Returning Values, Scope Rules, Storage Class, Inline Function, Function Overloading, Recursive Functions.

Structure, Class and Object - Define Structure, Returning Structure Elements, Nested Structure, Passing Structure to Function, User Defined Data Type, Class, Defining Member Function, Scope of Class and its Member, Nested Class, Data Hiding and Encapsulation, Friend Function, Object as Function Argument, Function Returning Object, Static Member.

Unit IV

Constructors and Destructors -Constructor Function, Parametric Constructor ,Hybrid Constructor, Default Constructor, Copy Constructor and Destructor Function.

Inheritance and Aggregation - Derived Class, Various Type of Inheritance, Polymorphism Types ,Function Overloading and Operator Overloading, Brief Concepts of Aggregation, Generalization ,Specialization etc.

Unit V

Pointer and Virtual Function - Pointer Variable, Dynamic Allocation Operators, New and Delete Operator , 'This' Operator Pointers to Derived Class.

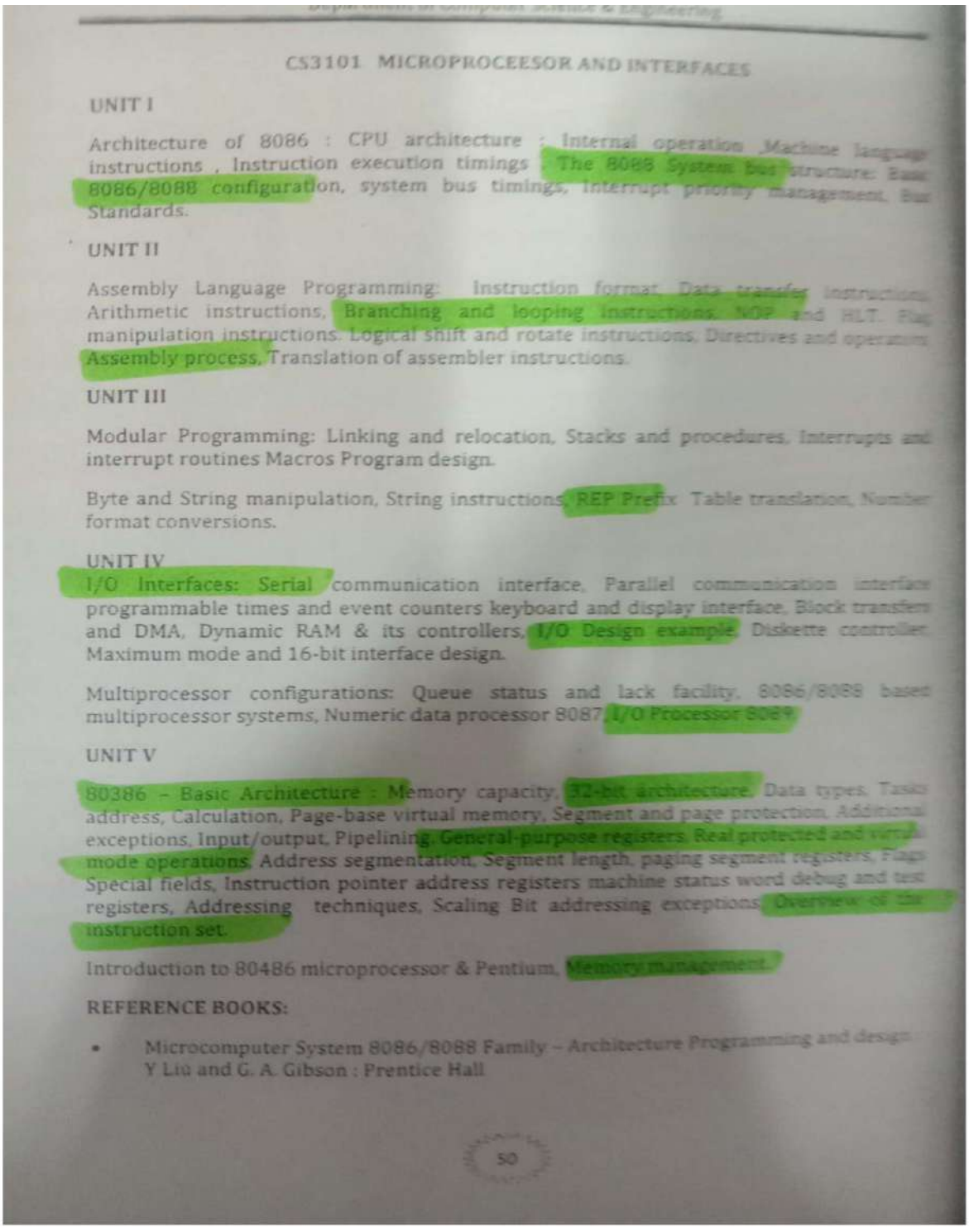
Working With Files - File & Stream, Opening and Closing a File, Read( ) and Write( ) Functions, Reading by Character, Array And ios Flags ,Detecting End of File (EOF) etc.

Text Books:

1. Object Oriented Programming With C++ By E. Balaguruswamy. Tata Megraw Hill.
2. Object Oriented Programming., In C++ By Lafore R, Waite Group.

Reference Books:

1. Object Oriented Programming With C++ By M. P. Bhave S. A. Patekar, Pearson Education
2. R. S. Salaria, Mastering Object-Oriented Programming With C++, Salaria Publishing House.
3. Bjarnestroustrup, The C++ Programming Language, Addison Wesley.
4. Herbert Schildt, The Complete Reference To C++ Language, Megraw Hill-Osborne.
5. Lippman F. B, C++ Primer, Addison Wesley.



CS3101 MICROPROCEESOR AND INTERFACES

UNIT I

Architecture of 8086 : CPU architecture , Internal operation Machine language instructions , Instruction execution timings , The 8086 System Bus structure: Basic 8086/8088 configuration, system bus timings, Interrupt priority management, Bus Standards.

UNIT II

Assembly Language Programming: Instruction format, Data transfer instructions, Arithmetic instructions, Branching and looping instructions, NOP and HLT, Flag manipulation instructions, Logical shift and rotate instructions, Directives and operators, Assembly process, Translation of assembler instructions.

UNIT III

Modular Programming: Linking and relocation, Stacks and procedures, Interrupts and interrupt routines Macros Program design.

Byte and String manipulation, String instructions, REP Prefix Table translation, Number format conversions.

UNIT IV

I/O Interfaces: Serial communication interface, Parallel communication interface programmable times and event counters keyboard and display interface, Block transfers and DMA, Dynamic RAM & its controllers, I/O Design example, Diskette controller Maximum mode and 16-bit interface design.

Multiprocessor configurations: Queue status and lack facility, 8086/8089 based multiprocessor systems, Numeric data processor 8087, I/O Processor 8089.

UNIT V

80386 – Basic Architecture : Memory capacity, 32-bit architecture, Data types, Tasks address, Calculation, Page-base virtual memory, Segment and page protection, Additional exceptions, Input/output, Pipelining, General-purpose registers, Real protected and virtual mode operations, Address segmentation, Segment length, paging segment registers, Flags Special fields, Instruction pointer address registers machine status word debug and test registers, Addressing techniques, Scaling Bit addressing exceptions, Overview of the instruction set.

Introduction to 80486 microprocessor & Pentium, Memory management.

REFERENCE BOOKS:

- Microcomputer System 8086/8088 Family – Architecture Programming and design Y Liu and G. A. Gibson : Prentice Hall

50

Scanned with CamScanner

CS3102 OPERATING SYSTEM

UNIT I

Introduction to Operating System objective and function services, System structure, batch interactive, time-sharing Protection.

The introduction of window NT, DOS, Window 07, UNIX, Linux

UNIT II

Concurrent Process: Process concepts, principal of concurrency problem, the critical section problem, semaphore, classical process communication, process generation, process scheduling

UNIT III

CPU Scheduling: scheduling concepts, performance Algorithm evaluation, multiprocessor scheduling.

I/O management and Disk scheduling I/O devices and I/O buffering disk I/O operating system design issues.

UNIT IV

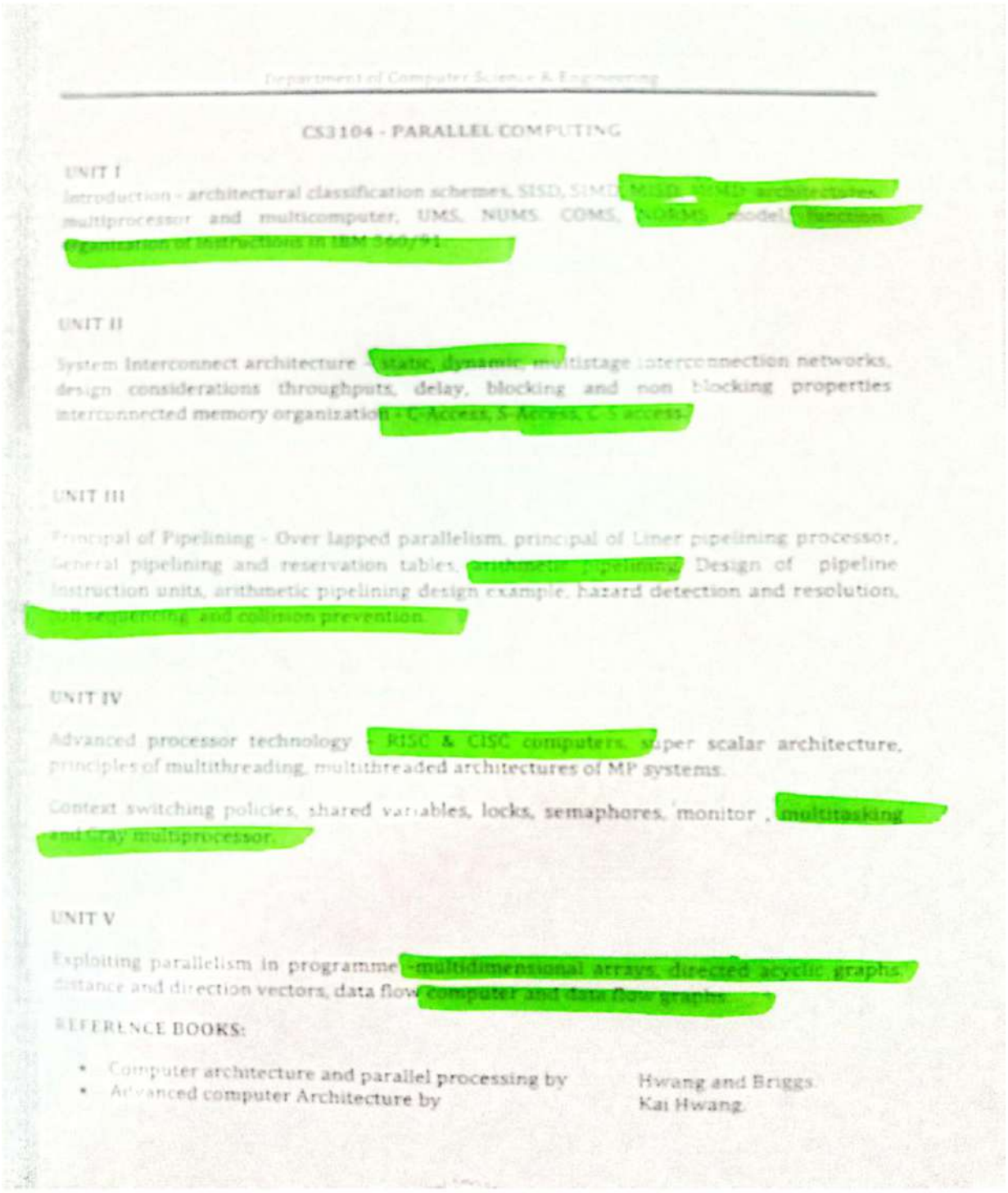
Dead Locks system models, deadlock characterization, detection recovery from deadlock, combined approach.

UNIT V

Memory Management : Base machine, Residence monitor, partition, multiprogramming with variable partitions, multiple segmentation, paging segmentation, virtual performance, page replacement algorithms, memory organization impact on performance.

REFERENCE BOOKS:

- Milenkovic M., "Operating System concepts", McGr
- Tanenbaubm A. S. "Operating System design and
- Silberschartz A.and Patterson J.L. "Operating system concepts", Addison
- Stilling William " Operating System " Macmillan
- Dectel H.N., "An introduction to operating systems", Addison Wesley.



Department of Computer Science & Engineering

CS3104 - PARALLEL COMPUTING

UNIT I

Introduction - architectural classification schemes, SISD, SIMD, MISD, MIMD architectures, multiprocessor and multicomputer, UMS, NUMS, COMS, NORMS, models, functions, organization of instructions in IBM 360/91.

UNIT II

System Interconnect architecture - static, dynamic, multistage interconnection networks, design considerations throughputs, delay, blocking and non blocking properties interconnected memory organization - C-Access, S-Access, C-S access.

UNIT III

Principal of Pipelining - Over lapped parallelism, principal of Liner pipelining processor, General pipelining and reservation tables, arithmetic pipelining, Design of pipeline instruction units, arithmetic pipelining design example, hazard detection and resolution, instruction sequencing and collision prevention.

UNIT IV

Advanced processor technology - RISC & CISC computers, super scalar architecture, principles of multithreading, multithreaded architectures of MP systems.

Context switching policies, shared variables, locks, semaphores, monitor, multitasking and Cray multiprocessor.

UNIT V

Exploiting parallelism in programme -multidimensional arrays, directed acyclic graphs, distance and direction vectors, data flow computer and data flow graphs.

REFERENCE BOOKS:

- Computer architecture and parallel processing by — Hwang and Briggs
- Advanced computer Architecture by — Kai Hwang

Scanned with CamScanner

CS3105 FORMAL LANGUAGES AND AUTOMATA THEORY

UNIT I

Deterministic and non deterministic finite automata , Regular Expression , Two way finite automata , finite automata with output , properties of regular set , pumping lemma , closure properties, My-Hill Nerode Theorem.

UNIT II

Context Free Grammars (CFG), derivation trees, Simplification normal forms, Chomsky Hierarchy: Regular Grammars, Unrestricted Grammars and Relations Between Classes of languages .

UNIT III

Push Down Automata: Definitions relationship between PDA and Context Free Languages, properties of CGL's, Decision Algorithms.

UNIT IV

Turing Machine : The Turing machine model , Computable languages and functions, Modification of Turing machines Church's Hypothesis.

UNIT V

Properties of recursive and recursive enumerable languages, Universal Turing machine, Undesirability Post correspondence problem introduction to recursive function theory.

REFERENCE BOOKS:

- Hopcroft and Ullman " Introduction to Automata Theory Languages and Computation ", Narosa.
- Mishra and Chandrashekharan, " Theory of Computer Science ", PH.
- Kohan " Theory of Computer Science".
- Korral " Theory of Computer Science".

CS3201 ADVANCE PROGRAMMING THROUGH JAVA

UNIT I BASICS OF JAVA

Overview of java: java features, jvm, jdk versions, variable, data types, initialization, type casting and conversions, operators, decision making statements, iteration statement, working with arrays.

UNIT II CLASS, INTERFACE AND PACKAGES

Classes: A closer look at methods and classes, declaring objects, reference Constructors, garbage collection, access specifiers in class Inheritance, aggregation, overloading, local class, anonymous class, inner class, top level

Interfaces: define interface, extend interface, import interface.

Package: defining package, importing package and CLASSPATH.

UNIT III EXCEPTION HANDLING AND THREADS

Exception handling: Introduction, types of exception, using try and catch, multiple try catch, nested try block, throw ,throws and finally.

Multithreading : creating thread, priority, synchronization, thread scheduler, yielding, sleeping and waking up, waiting and notify, suspend and resume.

UNIT IV APPLET AND AWT

Packages :input/output, networking and util collections.

Applet : introduction to applet, creating an applet, applet life cycle, applet and using image and sound in applet.

AWT : introduction to AWT, containers, control component and layout managers

UNIT V ADVANCE JAVA | J2EE

JDBC : introduction to jdbc, jdbc/odbc bridges,driver manage class.

Web based programming : introduction to servlet, HTML/DHTML, browsers and practical approach to web designing using servlet.

REFERENCE BOOKS:

- Java2 basics By E. Balaguruswamy
- The complete Reference – Java2 by Patrick Naughton and Herbert shield
- Java2 programming : khalid A.Mughal, R.W. Resmussen (publisher Wesley)

Department of Computer Science & Engineering

CS3202 COMPUTER GRAPHICS

UNIT I

Line Generation Points, lines, Plaines Vector, pixels and frame buffers, Vector and character generation, Graphics Primitives, Display devices, Primitive operation, Display file structure, Display control text

UNIT II

Polygons: Polygons representation, Entering polygons, Filling Polygons

Transformation: Matrices Transformation, transformation routines, Display procedures

UNIT III

Segments: Segments table, Creating Deleting and renaming a segment, Visibility, Image transformation.

Windowing and Clipping: Viewing transforming, Clipping, Generalized clipping, multiple windowing.

UNIT IV

Three Dimensions: 3-D Geometry Primitives, Transformation, Projection, Clipping, Hidden line and Surfaces Back-face Removal Algorithms, Hidden line methods.

UNIT V

Rendering and Illumination:

Introduction to curve generation, Bezier, Hermit and B-spline algorithms and their comparisons.

REFERENCE BOOKS:

- Hearn Baker, "Computer Graphics", PHI.
- Rogers , "Procedural Elements of Computer Graphics ", McGraw- Hill.
- Newman & Sproulle , "Principles of Interactive Computer Graphics", McGr- Hill.
- Harringtons S., "Computer Graphics ," A Programming Approach Second Edition MGH 1987.
- Rogers & Adams ," Mathematical Elements of Computers graphics , Second Edition MGH.
- Henary Baper , "Computer Graphics"

Department of Computer Science & Engineering

CS3203 SOFTWARE ENGINEERING

UNIT I

Software Engineering - What is software, Characteristics of software, Application of software, Software Process Models - Linear Sequential model, Prototype model, Rapid model, Incremental model, Component Based Development Model, Fourth Generation Techniques.

UNIT II

MANAGING SOFTWARE PROJECT

The Management Spectrum: People, Product, Process, Software Process and Project Metrics - Measures, Metrics and Indicators. Process and Project Metrics, Software Measurement-Size Oriented Metrics, Function Oriented Metrics, Metrics for Quality Overview, Measuring Quality, DRE. Software Requirement Specification-Problem Analysis. Requirement Specification. Validation. Metrics, monitoring and control. Models, the Make /Buy Decision.

UNIT III

System Design: Problem portioning, abstraction, top-down and bottom-up design. Structured approach, Functional versus Object oriented approach, design specification and verification, metrics, monitoring and control.

UNIT IV

Coding: Top-down and bottom-up structured programming, information hiding programming style, internal documentation, verification. Metrics, monitoring and control.

UNIT V

Software testing: software Testing fundamentals, white box testing, Basics path testing. A strategic Issues, Unit testing, Integration testing, validation testing, System Testing.

Software Project Management - Cost estimation, project scheduling, Staffing, Software configuration management, Quality assurance, Project Monitoring, Risk management etc.

REFERENCE BOOKS:

- Software Engg: Pressmen
- Software Engg: Pankaj Jalote
- Software Engg: Shaum's Outline Series

CS3204 RELATIONAL DATA BASE MANAGEMENT SYSTEM (PRACTICAL)

UNIT I INTRODUCTION TO DATA BASE

Advantages of DBMS , Type of data Models, Schema and instances, DBMS architecture and Data independence , Entity-Relationship Model, Constraints and keys, Entity-Relationship diagram, Week Entity set, Strong Entity set, Enhanced E-R Modeling, Specialization and Generalization ,

UNIT II THE RELATIONAL DATA MODEL

Relational data model concepts, constraints, relational algebra, relational calculus SQL: DDL, DML, Types of constraints, Defining different constraints on a table, Defining & Dropping integrity constraints, Views in SQL, Queries.

UNIT III DATA BASE DESIGN

Functional dependencies And Normalization for Relational Database, Informal design guidelines for relation schemes , Function dependencies, Normal forms based on primary keys, General definitions of second and third normal forms, Boyce - Codd normal form, problem related with normal forms & solutions, Multivalued & join dependencies, 4th & 5th Normalization.

UNIT IV QUERY & TRANSACTION PROCESSING

Query Processing: Query Processing Stages, Query interpretation, Equivalence rules, Table scans, Fill factor , Multiple index access, Methods for join clause, Aggregation & query optimizer. Transaction processing: Types of failures, ACID property, Schedules and recoverability, serialbility of schedules , Levels of transaction consistency, Conflict & Nested transaction , Transaction

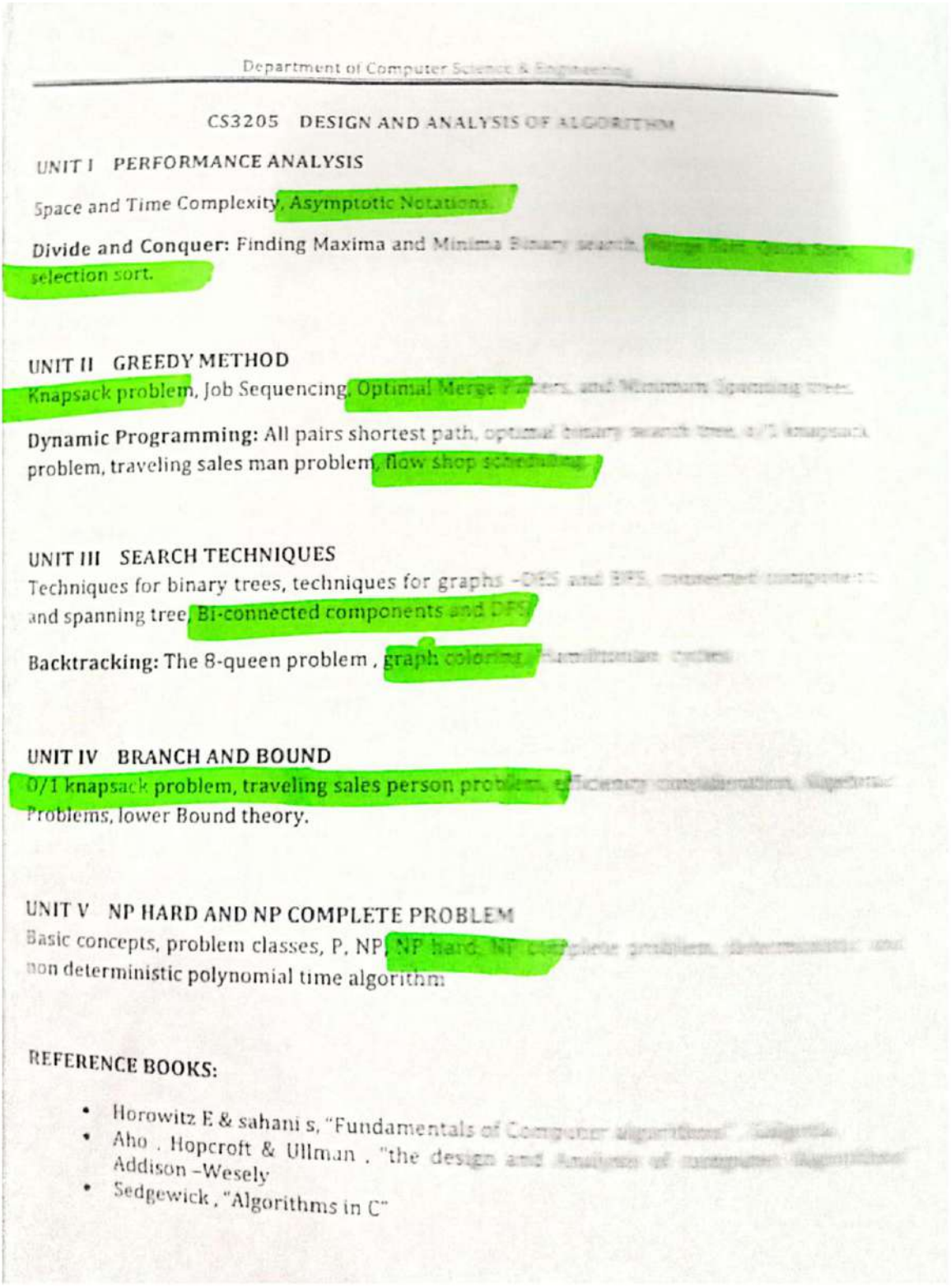
Benchmarking

UNIT V CRASH RECOVERY

Failure classification, Different type of Recovery techniques & their comparative analysis, Deferred update, immediate update, shadow paging, Check points, Recovery in the event of database updates, Concurrency control : Different types of concurrency problem techniques, &their comparative analysis, Locking techniques, Time stamp ordering, Multi - version techniques, Optimistic techniques, Multiple granularity, Insertion, Deletion and procedural and procedural integrity constraints, Integrity constraints specification in SQL.

TEXT BOOKS:

- Database system concept, korth & Sudarshan, MH
- Database Design Fundamentals, Rishe, PHI



Department of Computer Science & Engineering

CS3205 DESIGN AND ANALYSIS OF ALGORITHM

UNIT I PERFORMANCE ANALYSIS

Space and Time Complexity, Asymptotic Notations.

Divide and Conquer: Finding Maxima and Minima Binary search, Merge Sort, Quick Sort, selection sort.

UNIT II GREEDY METHOD

Knapsack problem, Job Sequencing, Optimal Merge Patterns, and Minimum Spanning trees.

Dynamic Programming: All pairs shortest path, optimal binary search tree, 0/1 knapsack problem, traveling sales man problem, flow shop scheduling.

UNIT III SEARCH TECHNIQUES

Techniques for binary trees, techniques for graphs –DFS and BFS, connected components and spanning tree, Bi-connected components and DFS.

Backtracking: The 8-queen problem , graph coloring, Hamiltonian cycles.

UNIT IV BRANCH AND BOUND

0/1 knapsack problem, traveling sales person problem, efficiency considerations, Nondeterministic Problems, lower Bound theory.

UNIT V NP HARD AND NP COMPLETE PROBLEM

Basic concepts, problem classes, P, NP, NP hard, NP complete problem, deterministic and non deterministic polynomial time algorithm.

REFERENCE BOOKS:

- Horowitz E & sahani s, "Fundamentals of Computer algorithms" Galgotia
- Aho , Hopcroft & Ullman , "the design and Analysis of computer Algorithms" Addison –Wesely
- Sedgewick , "Algorithms in C"

Scanned with CamScanner

CS4101 COMPILER DESIGN

UNIT I
Overview of translation process. Lexical analysis: Hand coding and automatic generation of lexical analyzers.

UNIT II
Parsing theory: Top down and bottom of parsing algorithms. Automatic generation of parsers.

Intermediate code generation: Different intermediate forms. Syntax directed translation mechanism and attributed definition.

UNIT III
Run Time Theory Management: static memory allocation and stack based memory allocation schemes.
Symbol table management.

UNIT IV
Code Generation: Machine model, order of evaluation, registers allocation and code selection.

UNIT V
Code Optimization: Global data flow analyses, A few selected optimizations like command sub expression removal, loop invariant code motion, strength reduction etc.

TEXTS/REFERENCES:

- A.V.Aho, Ravi Sethi, J.D.Ullman, Compilers tools and Techniques, Addison Wesley,
- D.M.Dhamdhere, Compiler Construction-Principles and practice Macmillan, India,
- Tremblay J.P. and Sorenson, P.G. the theory and practice of compiler writing, Mc Graw Hil,
- Waite W.N. and Goos G., Compiler construction' springer verlag,

CS4103 NETWORK SECURITY

UNIT I

Services , Mechanisms ,and Attacks , The OSI Security Architecture , A Model for Network Security , symmetric cipher model , substitution techniques Transposition techniques, Rotor machines , Steganography .

UNIT II

Block ciphers and the data encryption standard , simplified DES , Block cipher principles , The data Encryption Standard ,The Strength of DEC. Differential and Linear Cryptanalysis ,Block Cipher Design principles ,Block Cipher Modes of Operation , Evaluation Criteria for AES The AES cipher , Triple DES , blowfish , RC5, Rc4 Stream Cipher ,

UNIT –III

principles of public –Key Cryptosystems , public –Key cryptosystems , Applications for public –Key Cryptosystems , Requirements for public –Key Cryptosystems , Public –Key Cryptosystems , The RAS Algorithm , Computational Aspects , The Security of RSA , Key management , Distribution of public keys , public –Key Distribution of Secret Keys , Differ –Hellmann Key Exchange,

UNIT-IV

Web Security :Web Security Threats , Web Traffic Security Approaches , SSL Architecture , SSL Record Protocol , Change Cipher Spec Protocol ,Alert Protocol , Handshake Protocol , Cryptographic Computations ,Transport Layer Security , Secure Electronic Transaction ,

UNIT V

Intruders : Intrusion Techniques ,Intrusion Detection , Audit Records , Statistical Anomaly Detection ,Rule –Based Intrusion Detection ,The Base –Rate Fallacy , Distributed Intrusion Detection , Honeypots , Intrusion Detection Exchange Format Firewall Design principles , Firewall Characteristics , Types of Firewalls , Firewall Configurations .

Books :

- Cryptography and Network Security, Principles and Practice Third edition , William Stallings

.

CS4108 Management Information System

UNIT I

Introduction Of Information System, Fundamentals of Information System, Strategic Role of Information in Organisation and Management, Information System and Organisation , Business Process Re-Engineering .

UNIT II

Integration of Information, Decision Making Process , Models and Decision Support , Decision in business Areas , Strategic Analysis .

UNIT III

Information System Planning, Controlling Information System , Development of MIS Methodology and Tools/Techniques for Systematic Identification, Evaluation , Modification of MIS . Information System Success and Failure Implementation .

UNIT IV

Information System for Business Operations : Cross Functional Information System , A study of major Financial , Production , Human Resource Information System and Marketing Information System , Inventory, Management Information System.

UNIT V

Management of Information System and End - User Computing , Security and Ethical issues of Information System , Major issues in Information System , Auditing of Information System.

Reference Books

- Management Information System : Solving Business Problems with Information Technology by Gerald V,. Post and David L. Anderson [Tata McGraw - Hill Edition]
- Management Information System : Managing Information Technology in the Internet worked Enterprise by James A. O'Brien [Tata Mcgraw -Hill Edition , Fourth Edition]
- Management Information System : A Contemporary Perspective by Kenneth C. Laudon and Jane Price Laudon [Maxwell Macmilan International Editions]

2022.0

CS4201 DATA MINING

UNIT-1

Data ware Housing :-

What is a data warehouse ?, definition ,Multidimensional data model, OLAP operation , warehouse schema ,data ware housing architecture, warehouse serve ,metadata , OLAP , engine ,Data warehousing backend process, other features.

Data Mining:- what is data mining ? KDD Vs. data mining ,DBMS Vs DM other related areas , DM techniques , other mining problem , issues & challenges in DM , Dm application areas.

UNIT-II

Association rules:- what is an association rule ? , methods to discover association rules, a priori algorithm ,partition algorithm, pincer –search algorithm , Dynamic Itemset counting algorithm , FP-tree Growth algorithm , Incremental algorithm, Border algorithm , generalized association rules, Association rules with item constraints .

UNIT-III

Clustering Techniques:-

Introduction , clustering paradigms , partitioning algorithms, k-Medoid Algorithm, CLARA ,CLARANS , Hierarchial clustering , DBSCAN , BIRCH, CURE, Categorical clustering algorithms , STIRR, ROCK , CACTUS,

UNIT -IV

Decision Trees: - what is a Decision tree? Tree construction principal , Best spilt splitting indices, splitting criteria , Decision tree construction algorithm, CART, ID3, C4.5 , CHAID , Decision tree construction with presorting , rainforest, approximate method , CLOUDS, BOAT , pruning technique , integration of pruning & construction .

UNIT-V

What is neural network ? Learning in NN, unsupervised learning , data mining using NN , genetic algorithm ,Rough sets, Support Vector machines.

Web Mining :- Web mining ,web content mining ,web structure mining ,web usage mining ,text mining , unstructured text , Episode rule discovery for texts , Hierarchy of categories , text clustering .

Books & References :-

- Data Mining Techniques – Arun K Pujari Universities Press
- Data Mining Concepts & Techniques – Jiawei Han , Micheline Kamber Morgan Kaufmann Publisher Elsevier India
- Data Mining Methods For Knowledge Discovery –Cios , Pedrycz , Swiniarski Kluwer Academic Publishers London

CS4206 ENTERPRISE RESOURCE MANAGEMENT (ERP)

UNIT I
Function of Business Organizations : Personnel management, Financial management, marketing management, Sales order Processing , Manufacturing managements , Human Resource Management etc , data and information , Operation of functional areas. Integrated view of ERP

UNIT II
Technologies of ERP : knowledge based system , Decision support system , Executive information system , Electronic commerce, , Databases system , Business Engineering , Business process Engineering , Networking , 3 tier and 2 tier architecture.

UNIT III
Management information system : MIS ,data & information , levels of Management , information requirement , objectives of information channels, information strategies

UNIT IV
Information and planning : Resource management benefit of management planning proces objective and its characteristic , policy and procedures ,forecasting and its varies aspects Scheduling , MRP , MRP-II

UNIT V
ERP implement issues : software development life cycle , pre Evaluation schemes , post implem issues case studies .

Reference Book :

- Management Information Systems : Louden & Louden
- ERP by Garg and Ravichandran
- Information System and MIS : J Kanter
- Management Information System : Jawardekar

CS4203 ARTIFICIAL INTELLIGENCE & EXPERT SYSTEMS

nit I
asic Problem solving methods: Production systems-state space search, control strategies, Heuristic earch, forward and backward reasoning, Hill climbing techniques, Breadth first search, Depth first earch, Best search, staged search.

nit II
nowledge Representation: Predicate logic, Resolution question Answering, Nonmonotonic easoning, statistical and probabilistic reasoning, Semantic Nets, Conceptual Dependency, frames d scripts.

nit III
languages: Important characteristics of AI languages - PROLOG, LISP.

nit IV
troduction to Expert Systems: Structure of an Expert system interaction with an expert, Design of Expert system.

nit V
ural Network: Basic Structure of a neuron, Perception Feed forward, Back propagation, Hopfield twork.

ference Books:

- Rich E and Knight K - Artificial Intelligence, TMH New Delhi.
- Nelsson N.J. - Principles of Artificial Intelligence, Springer Verlag, Berlin.
- Barr A, Fergenbaub E.A. and Cohen PR. Artificial Intelligence, Addisonwesley, Reading (Mars) 1989.
- Waterman D.A. A guide to Expertsystem, Adision - Wesley, Reading (Mars) 1986.
- Artificial Intelligence Hand book, Vol. 1-2, ISA, Research Triangle Park 1989.
- Kos Ko B Neural Networks and Fuzzy system -pH.
- Neural Network Design, Martin Hagar, Vikas-Thomson Learning, Vikas Pub. House Pvt. Ltd., Delhi.
- Expert Systems: Principals & Programming, Joseph Giarrantons & Rilay, Vikas – Thomson Learning, Vikas Pub. House Pvt. Ltd., Delhi.

CS4202 GUI Programming (using VB.Net)

UNIT –I

Introduction to .Net Framework , Understanding web programming web browser and web server , How to create HTML page and HTML forms ,Role of Net in web development , NET framework and platform base classes , XML as Dot Net Meta language , relation with COM , overview OF CLR , Dot NET class frame , an overview of DOT NET components , IDE OF VB.NET –menu bar , toolbars, project Explorer , toolbox , properties window , from designer, from layout , Immediate window , visual Development and Event –Driven Programming –Event Driven programming method and events , Concept of VB.NET project, types of VB .NET project , opening and saving the projects, Elements of the user interface, Designing the interface , Creating forms and code modules ,Running the application, Grouping controls, Customizing The Environment –Editor tab ,format tab general tab ,docking tab ,environment tab , working with forms, loading , showing and hiding forms, Controlling one form within another .

UNIT –II

Variables – Declaring variables , Types of variables Converting variables types, User- defined data types, special values ,Forcing variables declarations , Scope and lifetime of a variables , Constants ,Arrays ,Types of array ,control array ,collections ,procedures, subroutines ,Functions. Control flow statements and conditional statements, Loop statements, Designing menus and popup menus , programming menu commands ,using access and shortcut keys , Using message box and input , Using standard modules .

UNIT –III

The text box control –Tex selection, Search and replace operations, The List box Combo controls, Indexing with the List box controls, Searching a Sorted list , The scroll bar and slider controls, using the common dialog controls, Color common dialog box , Font common dialog box , the file open and save common dialog boxes, print dialog box , Help common dialog box , The file controls,

UNIT –IV

Classes , instances , objects, Encapsulation and abstraction , Derived classes and lose classes , classes in Object linking and embedding (OLE) OLE at runtime , OLE control, Graphics , with visual Basic . NET , from , picture box and image box controls sizing images , loading saving images, coordinate systems, scale properties and methods. The drawing methods : drawing text ,drawing , drawing boxes filling, Drawing curves , manipulating pixels , specifying colors, using timer controls, Multiple Document Interface (MDI) , MDI- built –in capabilities , Parents –child menus , Objects and instances , Loading and unloading of child forms, New and open commands .

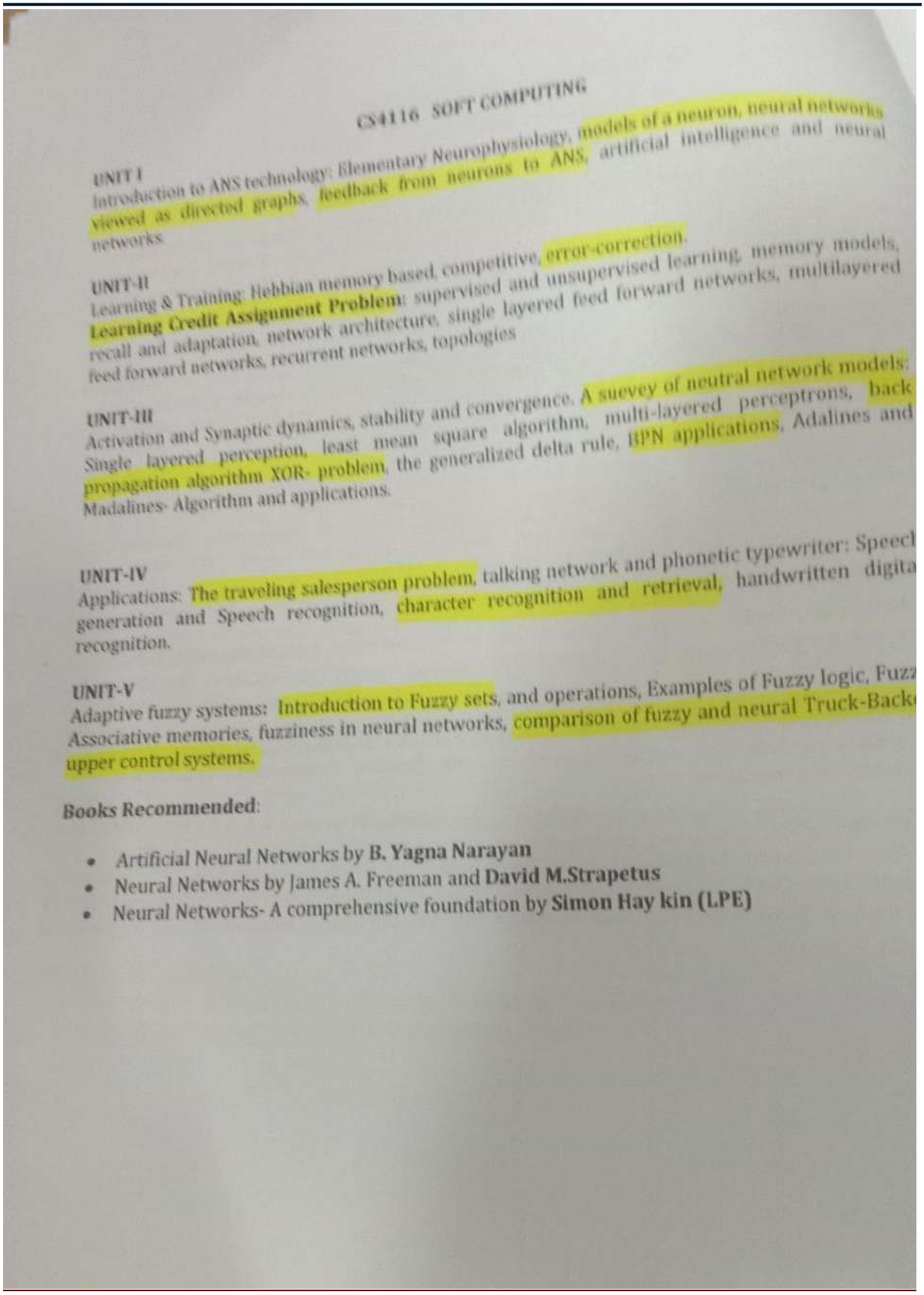
UNIT- V

Windows management , Graphics device interface , Accessing the win 32 API from VB.NET , Dynamic –link – libraries (DLL) ,Declaring a DLL procedure , calling a DLL Procedure ,Special considerations when calling DALL with special data types, the bitmaps and graphics API functions system API functions

Programming and interfacing with Office 97 –

Programmer with objects, the New VB for applications (VBA) Editor . Automating office applications spell- checking documents , working with excel objects .

Text & Reference Books:-



CS4116 SOFT COMPUTING

UNIT I
Introduction to ANS technology: Elementary Neurophysiology, models of a neuron, neural networks viewed as directed graphs, feedback from neurons to ANS, artificial intelligence and neural networks

UNIT-II
Learning & Training: Hebbian memory based, competitive, error-correction.
Learning Credit Assignment Problem: supervised and unsupervised learning, memory models, recall and adaptation, network architecture, single layered feed forward networks, multilayered feed forward networks, recurrent networks, topologies

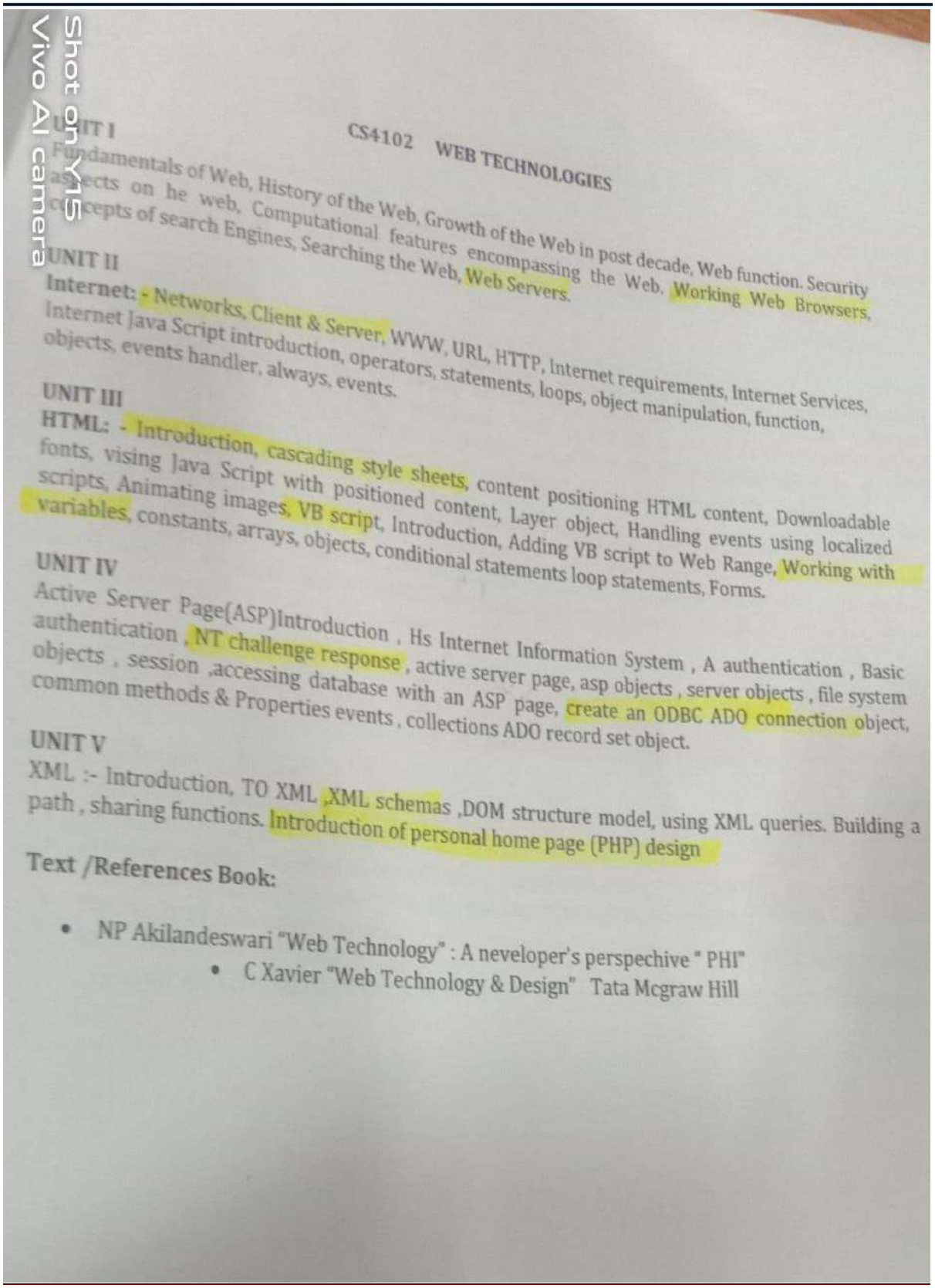
UNIT-III
Activation and Synaptic dynamics, stability and convergence. A suevey of neutral network models: Single layered perception, least mean square algorithm, multi-layered perceptrons, back propagation algorithm XOR- problem, the generalized delta rule, HPN applications, Adalines and Madalines- Algorithm and applications.

UNIT-IV
Applications: The traveling salesperson problem, talking network and phonetic typewriter: Speech generation and Speech recognition, character recognition and retrieval, handwritten digita recognition.

UNIT-V
Adaptive fuzzy systems: Introduction to Fuzzy sets, and operations, Examples of Fuzzy logic, Fuzz Associative memories, fuzziness in neural networks, comparison of fuzzy and neural Truck-Back upper control systems.

Books Recommended:

- Artificial Neural Networks by **B. Yagna Narayan**
- Neural Networks by James A. Freeman and **David M.Strapetus**
- Neural Networks- A comprehensive foundation by **Simon Hay kin (LPE)**



CS4102 WEB TECHNOLOGIES

UNIT I

Fundamentals of Web, History of the Web, Growth of the Web in post decade, Web function. Security aspects on he web, Computational features encompassing the Web. Working Web Browsers, concepts of search Engines, Searching the Web, Web Servers.

UNIT II

Internet: - Networks, Client & Server, WWW, URL, HTTP, Internet requirements, Internet Services, Internet Java Script introduction, operators, statements, loops, object manipulation, function, objects, events handler, always, events.

UNIT III

HTML: - Introduction, cascading style sheets, content positioning HTML content, Downloadable fonts, vising Java Script with positioned content, Layer object, Handling events using localized scripts, Animating images, VB script, Introduction, Adding VB script to Web Range, Working with variables, constants, arrays, objects, conditional statements loop statements, Forms.

UNIT IV

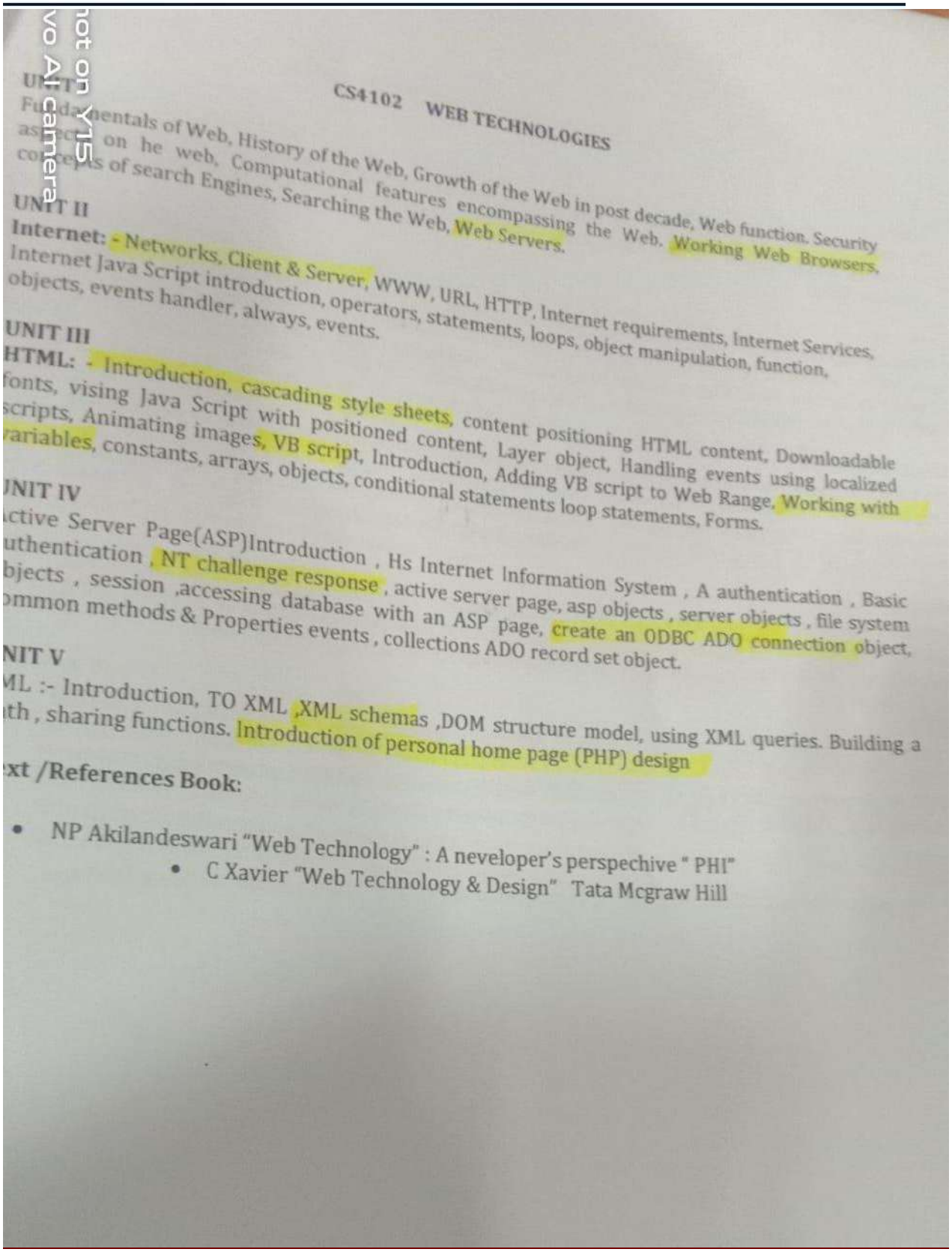
Active Server Page(ASP)Introduction , Hs Internet Information System , A authentication , Basic authentication , NT challenge response , active server page, asp objects , server objects , file system objects , session ,accessing database with an ASP page, create an ODBC ADO connection object, common methods & Properties events , collections ADO record set object.

UNIT V

XML :- Introduction, TO XML ,XML schemas ,DOM structure model, using XML queries. Building a path , sharing functions. Introduction of personal home page (PHP) design

Text /References Book:

- NP Akilandeswari "Web Technology" : A neveloper's perspechive " PHI"
- C Xavier "Web Technology & Design" Tata Mcgraw Hill



CS4102 WEB TECHNOLOGIES

UNIT I
Fundamentals of Web, History of the Web, Growth of the Web in post decade, Web function. Security aspects on he web, Computational features encompassing the Web. Working Web Browsers, concepts of search Engines, Searching the Web, Web Servers.

UNIT II
Internet: - Networks, Client & Server, WWW, URL, HTTP, Internet requirements, Internet Services, Internet Java Script introduction, operators, statements, loops, object manipulation, function, objects, events handler, always, events.

UNIT III
HTML: - Introduction, cascading style sheets, content positioning HTML content, Downloadable fonts, vising Java Script with positioned content, Layer object, Handling events using localized scripts, Animating images, VB script, Introduction, Adding VB script to Web Range, Working with variables, constants, arrays, objects, conditional statements loop statements, Forms.

UNIT IV
Active Server Page(ASP)Introduction , Hs Internet Information System , A authentication , Basic authentication , NT challenge response , active server page, asp objects , server objects , file system objects , session ,accessing database with an ASP page, create an ODBC ADO connection object, common methods & Properties events , collections ADO record set object.

UNIT V
XML :- Introduction, TO XML ,XML schemas ,DOM structure model, using XML queries. Building a path , sharing functions. Introduction of personal home page (PHP) design

Text /References Book:

- NP Akilandeswari "Web Technology" : A neveloper's perspechive " PHI"
- C Xavier "Web Technology & Design" Tata Mcgraw Hill