

**ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR**

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

B. Tech. Scheme of Examination & Syllabus 2023-24**COMPUTER SCIENCE & ENGINEERING (CYBER SECURITY)****Scheme of Examination - THIRD SEMESTER**

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Continual Assessment	End Sem Examination	Total
1	AS301T	Applied Mathematics – III	3	1	-	4	30	70	100
2	CS302T	Data Structures	4	-	-	4	30	70	100
3	CS302P	Data Structures Lab	-	-	2	1	25	25	50
4	CS303T	Digital Circuits and Fundamentals of Microprocessor	3	1	-	4	30	70	100
5	CS303P	Digital Circuits and Fundamentals of Microprocessor Lab	-	-	2	1	25	25	50
6	CS304T	Computer Networks	3	-	-	3	30	70	100
7	CS305T	Information Security Fundamentals	3	-	-	3	30	70	100
8	CS306P	Computer Lab -I	-	-	2	1	25	25	50
9	H 102	Universal Human Values - 2	3	-	-	3	30	70	100
10	CS307T	Career Development-I	2	-	-	0	Audit		
Total			21	2	6	24	255	495	750

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B. Tech. Scheme of Examination & Syllabus 2023-24**COMPUTER SCIENCE & ENGINEERING (CYBER SECURITY)****Scheme of Examination - FIFTH SEMESTER**

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Continual Assessment	End Sem Examination	Total
1	CS501T	Theory of Computation	3	1	-	4	30	70	100
2	CS502T	Digital Cyber Law	2	1	-	3	30	70	100
3	CS503T	Network Vulnerability Analysis and Penetration Testing	3	-	-	3	30	70	100
4	CS503P	Network Vulnerability Analysis and Penetration Testing Lab	-	-	2	1	25	25	50
5	CS504T	Elective- I	3	-	-	3	30	70	100
6	CS505T	Open Elective -I	3	-	-	3	30	70	100
7	CS505P	Open Elective -I Lab	-	-	2	1	25	25	50
8	AS501T	Economics and Management	4	-	-	4	30	70	100
9	CS506P	Technical Skill Development-II	-	-	2	1	50	-	50
10	CS507T	Career Development-III	2	-	-	0	Audit		
Total			17	2	6	23	280	470	750

	Elective - I		Open Elective - I
CS504T(i)	Cloud Computing	CS505T(i)	Basics of Ethical Hacking
CS504T(ii)	Wireless Communication & Mobile Computing	CS505T(ii)	Security in IOT
CS504T(iii)	Internet Of Things	CS505T(iii)	Fundamentals of Cryptography

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**B.Tech. Scheme of Examination & Syllabus 2023-24
COMPUTER SCIENCE & ENGINEERING(CYBER SECURITY)**

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
AS301T	Applied Mathematics-III	3	1		4	30	70	100

Course Objectives	Course Outcomes
<p>The aim of this course is</p> <ul style="list-style-type: none"> To introduce the essential concepts of Numerical Computational techniques & Theory of Probability. To familiarize the students with concepts in linear algebra and statistics. 	<p>Students will be able to</p> <ul style="list-style-type: none"> Analyze and solve problems by numerical computation method for Transcendental equations and System of linear equations. Identify engineering problems related to Matrices: Eigen value & Eigen vectors & Functions of Matrices. Apply various concepts of vector spaces. Apply various concepts of joint distribution. Use statistical methods and tools in engineering problems.
Unit I	[6Hrs]
Numerical Methods: Error in numerical calculations, Solution of Algebraic and Transcendental Equations: Method of False position, Newton–Raphson method, Solution of system of simultaneous linear equations: Gauss elimination method and Crout’s method Largest Eigen value and Eigen vector by Iteration method. Euler modified method, Runge Kutta method.	
Unit II	[8Hrs]
Matrices: Linear dependence of vectors, Characteristics equation, Eigen values and Eigen vectors, Reduction to diagonal form, Reduction of quadratic form to canonical form by orthogonal transformation, Sylvester’s theorem.	
Unit III	[8Hrs]
Vector Space: Subspaces, Linear Dependence/Independence, Basis, Dimension, Linear transformation, Range Space and Rank, Null Space and Nullity, Rank nullity theorem, Matrix Representation of a linear transformation, Linear Operators on Rn and their representation as square matrices.	
Unit IV	[8Hrs]
Probability: Baye’s rule, Review of discrete and continuous random variables, Joint probability function of discrete random variable, Marginal probability function and Conditional distribution of discrete random variable, Mathematical expectation of discrete random variable, Variance and Standard deviation, and Covariance of joint distribution.	
Unit V	[8Hrs]
Statistics: Multiple regression analysis, Regression equation of three variables, Measures of central tendency, Mean, Median, Mode, Mean deviation, Standard deviation, Testing a hypothesis, Null hypothesis, Alternative hypothesis, t-test, F-test and Chi square test	

Text Books

S.N	Title	Authors	Edition	Publisher
1	Linear Algebra and Its Application (Paperback)	Bruice Schneier	II Edition	Wiley India Pvt ltd
2	Higher Engineering Mathematics	Bernard Menzees	I Edition	Cengage Learning

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Advanced Engineering Mathematics	Erwin Kreyszig	8 th	Wiley India
2	Linear Algebra	Seymour Lipschutz etal	3 rd	Schaum series

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THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
AS304T	Applied Mathematics-III	3	1		4	30	70	100

Course Objectives	Course Outcomes
<p>The aim of this course is</p> <ul style="list-style-type: none"> To introduce the essential concepts of Theory of Probability. To familiarize the students with concepts in linear algebra and statistics.. To provide general understanding of cyber security relationship with numbers. 	<p>Students will be able to</p> <ul style="list-style-type: none"> To compute with integers modulo n, and understand congruence classes, division algorithms, Euler's theorem, and possibly the Chinese Remainder Theorem Identify engineering problems related to Matrices: Eigen value & Eigen vectors & Functions of Matrices. Apply various concepts of vector spaces. Apply various concepts of joint distribution. Use statistical methods and tools in engineering problems.

Unit I

[6Hrs]

Analytic Number theory:

Eulid's Lemma, Euclidean algorithm, basic properties of congruences, residue classes and complete residue system, Euler Fermat theorem, Lagrange's theorem and its applications, Chienes remainder theorem, primitive roots.

Unit II

[8Hrs]

Matrices: Linear dependence of vectors, Characteristics equation, Eigen values and Eigen vectors, Reduction to diagonal form, Reduction of quadratic form to canonical form by orthogonal transformation, Sylvester's theorem.

Unit III

[6Hrs]

Vector Space: Subspaces, Linear Dependence/Independence, Basis, Dimension, Linear transformation, Range Space and Rank, Null Space and Nullity, Rank nullity theorem, Matrix Representation of a linear transformation, Linear Operators on R^n

Unit IV

[8Hrs]

Probability: Baye's rule, Review of discrete and continuous random variables, Joint probability function of discrete random variable, Marginal probability function and Conditional distribution of discrete random variable, Mathematical expectation of discrete random variable, Variance and Standard deviation, and Covariance of joint distribution.

Unit V

[7Hrs]

Statistics: Multiple regression analysis, Regression equation of three variables, Measures of central tendency, Mean, Median, Mode, Mean deviation, Standard deviation, Testing a hypothesis, Null hypothesis, Alternative hypothesis, t-test, F-test and Chi square test.

Text Books

S.N	Title	Authors	Edition	Publisher
1	Linear Algebra and Its Application (Paperback)	Gilbert Strang	2007	Nelson Engineering
2	Higher Engineering Mathematics	B.S. Grewal	40th Edition	Khanna Publication
3	Theory & problems of Probability and Statistics	Murray R. Spiegel		Schaum Series, Mc Graw Hills

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Advanced Engineering Mathematics	Erwin Kreyszig	8 th Edition	Wiley India
2	Linear Algebra	Seymour Lipschutz etal	3 rd Edition	Schaum series.
3	First course in Linear Algebra	Nagpaul,		Wiley Eastern Ltd, New Delhi
4	Higher Engineering Mathematics	H.K Dass & Er. Rajesh		S. Chand Publication.

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COMPUTER SCIENCE & ENGINEERING (CYBER SECURITY)

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
CS302T	Data Structures	4			4	30	70	100

Course Objectives	Course Outcomes
<p>This course is intended</p> <ul style="list-style-type: none">To provide knowledge of basic concepts in data structures and algorithms.To choose the appropriate data structure and algorithm design method for a specified application.To efficiently implement the different data structures and solutions for specific problems	<p>Students will be able to</p> <ul style="list-style-type: none">To understand the basic concept of data structures, time complexity and analyse the various sorting and searching algorithms.To implement dynamic data structures like singly, doubly and circular linked list.Apply the different linear data structures like stack and queue to various computing problems.Implement different types of trees and apply them to problem solution.Demonstrate the representation of graphs and their applications in real life problem and infer the use of symbol tables for hashing and collision resolution.

Unit I

[8Hrs]

Introduction: - Concept of Data structures, Time and space analysis of algorithms, Big oh, theta notations and omega notations, Average, best and worst case analysis

Searching and sorting techniques- Linear search, Binary search, Indexed search, Insertion sort, selection sort, Bubble Sort, radix Sort, Merge Sort, Quick Sort.

Unit II

[8Hrs]

Linked Lists: Singly linked list, Implementation of linked list using static and dynamic memory allocation, operations on linked list, polynomial representations and manipulations are using linked list, circular linked list, doubly linked list, Generalized list, sparse matrix, polynomial

Unit III

[8Hrs]

Stack and Queue - Array representation of stacks, Implementation of stack using linked lists, Queues, Dequeue, Circular queue, Polish notation, Application of stack & queue: Conversion from Infix to Postfix, Evaluation of postfix expressions, Priority Queues

Unit IV

[8Hrs]

Trees: Basic Terminology, Basic trees, Binary tree representations, threaded storage representation, binary tree traversals, binary search trees, Application of trees, Preliminary treatment of AVL Trees, B-Trees.

Unit V

[8Hrs]

Graphs: Definition & terminology, Graph representation: matrix representation of Graph, List of structure, other representation of graphs, Breadth First Search, Depth First Search, Spanning trees, Shortest path algorithm, topological sorting.

Symbol Tables: static tree tables, dynamic tree tables, hash tables, hash functions, Collision resolution, overflow handling, Applications

Text Books

S.N	Title	Authors	Edition	Publisher
1	Fundamentals of Data Structure	Horowitz and Sahani		CBS Publications
2	Data Structures using	Tanenbaum		C Pearson Education
3	Data structure and Algorithm	Lafore		BPB Publication

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Data Structure and Program Design in C	Kruse, Leung and Tondo		PHI
2	Schaum's outline: Data Structures	Seymour Lipschutz		Tata Mc Graw Hill
3	An Introduction to DS with applications	Trembley and sorenson		Mc Graw Hill

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THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
CS302P	Data Structures Lab			2	1	25	25	50

Course Objectives	Course Outcomes
<p>This course is intended</p> <ul style="list-style-type: none">To emphasize the application of data structures in developing and implementing efficient programs and algorithm	<p>Students will be able to</p> <ul style="list-style-type: none">Select appropriate data structures as applied to specified problem definition.Implement linear and Non-Linear data structures.Implement operations like searching, insertion, deletion and traversing mechanism etc. on various data structures.Determine and analyze the complexity of given Algorithms.

Expt. No.	Experiments based on
1	To design and implement basic C program using arrays & structures.
2	To implement a Menu driven program for linear & Binary search methods and demonstrate their constraints.
3	To implement a Menu driven program for Sorting methods and analyze their performances.
4	To implement a Program to demonstrate the working of a stack.
5	To implement a Program to demonstrate the working of a Queue
6	To implement a Program to apply the concepts of linked list
7	To implement the non-linear data structure binary tree
8	To implement BFS and DFS in graph

Text Books

S.N	Title	Authors	Edition	Publisher
1	Data Structure and Program Design in C	Kruse, Leung and Tondo		PHI
2	Schaum's outline: Data Structures	Seymour Lipschutz		Tata Mc Graw Hill
3	An Introduction to DS with applications	Trembley and sorenson		Mc Graw Hill

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Data Structure and Program Design in C	Kruse, Leung and Tondo		PHI
2	Schaum's outline: Data Structures	Seymour Lipschutz		Tata Mc Graw Hill
3	An Introduction to DS with applications	Trembley and sorenson		Mc Graw Hill

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B. Tech. Scheme of Examination & Syllabus 2023-24

Computer Science & Engineering(Cyber Security)

THIRD SEMESTER

Course Name	Th	Tu	Pr	Credits	Evaluation		
					CA	ESE	Total
CS303T	3	1		4	30	70	100

Course Objectives	Course Outcomes
<p>This course is intended</p> <ul style="list-style-type: none">To acquire the basic knowledge of digital logic levels and application of knowledge to understand digital electronics circuits.To impart how to design Digital Circuits.Understand 8086 microprocessor concepts, architecture and programming.	<p>Students will be able to</p> <ul style="list-style-type: none">represent numerical values in various number systems and will demonstrate the knowledge of: logic gates (AND, OR, NAND, NOR, XOR, XNOR), Boolean algebra, DeMorgan's Theorems, Karnaugh map.analyze and design digital combinational circuitsanalyze and design sequential digital circuits.describe the architecture & organization of 8086 microprocessor along with instruction set formatlist, describe and use different types of instructions, directives & interrupts and develop assembly language program

Unit I [8Hrs]
Number Systems & Code Conversion:- Number Systems & Code conversion, Boolean Algebra & Logic Gates, Truth Tables, Universal Gates, Simplification of Boolean functions, SOP and POS methods –Simplification of Boolean functions using K-maps, Signed and Unsigned Binary Numbers.

Unit II [8Hrs]
Combinational Circuits:- Combinational Logic Circuits: Adders & Subtractors, Multiplexers, Demultiplexers, Encoders, Decoders, Programmable Logic Devices

Unit III [8Hrs]
Sequential Circuits:- Sequential Logic Circuits: RS, Clocked RS, D, JK, Master Slave JK, T Flip-Flops, Shift Registers, Types of Shift Registers, Counters, Ripple Counter, Synchronous Counters, Asynchronous Counters, Up-Down Counter.

Unit IV [8Hrs]
Fundamentals of 8086 Microprocessors:- 8086 microprocessor, Functional Diagram, register organization 8086, Flag register of 8086 and its functions, Addressing modes of 8086, Pin diagram of 8086, Minimum mode & Maximum mode operation of 8086, Interrupts in 8086.

Unit V [8Hrs]
Programming of 8086 Micro-processor:- Instruction set of 8086, Assembler directives, Procedures and Macros, Simple programs involving arithmetic, logical, branch instructions, Ascending, Descending and Block move programs, String Manipulation Instructions.

Text Books

S.N	Title	Authors	Edition	Publisher
1	Digital Design	M. Morris Mano, Michael D. Ciletti	5 th Edition	Pearson Education
2	Digital Electronics: Principles, Devices and Applications	Anil K. Maini		John Wiley & Sons, Ltd
3	Microprocessor and Microcontrollers	N. Senthil Kumar, M. Saravanan, S. Jeevanathan		Oxford Publishers

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Digital Fundamentals –A Systems Approach	Thomas L. Floyd		Pearson
2	Fundamentals of Logic Design	Charles H. Roth	5 th Edition	Cengage Learning
3	Microprocessors and Interfacing.	D.V.Hall	2 nd Edition	TMGH

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Computer Science & Engineering(Cyber Security)

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
CS303P	Digital Circuits & Fundamental of Microprocessor			2	1	25	25	50

Course Objectives	Course Outcomes
<p>This course is intended</p> <ul style="list-style-type: none"> To introduce the basic concepts and laws involved in the Boolean algebra and logic families and digital circuits. To familiarize with the different logic gates, and combinational and sequential circuits utilized in the different digital circuits and systems. To introduces basic instruction of microprocessor. 	<p>Students will be able to</p> <ul style="list-style-type: none"> understand the Combinational Circuits using Logic Gates. design Arithmetic and Logical Circuits. demonstrate understanding of flip-flops & Sequential circuits understand the Basic Fundamentals of 8086 Microprocessor

Expt. No.	Experiments based on
1	To verify the truth table of different logic gates.
2	To study and verify the NAND & NOR gates as universal gates.
3	To study and verify truth table of Half adder and Full Adder.
4	To study and verify truth table of Multiplexer & Demultiplexer.
5	To study and verify truth table of different flip flops.
6	To study and verify 4 bit ripple counter.
7	Write and execute an ALP for addition & Subtraction of two 16 bit numbers.
8	Write and execute an ALP to find 1's complement of 16 bit a number.
9	Write and execute an ALP for sorting of data in ascending order and find largest number in an array.
10	Mini -Project

Text Books

S.N	Title	Authors	Edition	Publisher
1	Digital Integrated Electronics	Herbert Taub		McGraw Hill.
2	Digital Logic and Computer Design	Morris Mano		PHI
3	Digital Integrated Electronics	Herbert Taub		McGraw Hill.

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Fundamentals of Logic Design	Charles H. Roth	5 th Edition	Cengage Learning
2	Microprocessors and Interfacing.	D.V.Hall	2 nd Edition	TMGH

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THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
CS304T	Computer Networks	3			3	30	70	100

Course Objectives	Course Outcomes
This course is intended <ul style="list-style-type: none"> To obtain a theoretical understanding of various aspects of data communication & computer network. To explain the concepts of layered architecture during communication between two entities. To enable the students to understand the concepts of wireless & mobile networks. 	Students will be able to <ul style="list-style-type: none"> Student will be able to describe the basics of network and its hardware components Students will be able to explain the different network models. Students will be able to interpret the various functions and protocols of network models. Students will be able to assess different transmission media with its connectors. Students will be able to summarize the concepts of wireless & mobile networks.
Unit I	[8Hrs]
Introduction to Data Communication and Computer Networks:- Data Communication model, Components of Data Communication system, Data representation, Types of communication, need & components of computer networks, advantages & disadvantages computer networks, types of connection and topologies, types of networks (LAN, MAN, PAN, WAN), Internetworking concepts.	
Unit II	[8Hrs]
Network Layered Model: Emergence of Layered Architecture, Network Architecture, Design issues for the Layers, Interfaces and Services, Service primitives, Connection Oriented and Connectionless types of services, OSI Reference Model & architecture, TCP/IP reference model, types of addressing, type of network devices	
Unit III	[8Hrs]
Physical Layer: Types of signals, Transmission Mode, Transmission Impairment, Data rate Limits, Line Coding digital-to-digital conversion methods, types of transmission media, Switching techniques. Data Link Layer: Framing methods, error detection and correction methods, Protocols for Noise and Noiseless channels, MAC layer multiple access protocols (CSMA, CSMA/CD, CSMA/CA)	
Unit IV	[8Hrs]
Network Layer: Concept of router and routing table, IPv4 addresses, IP packet format, address mapping protocols, ICMP, Unicast routing protocols. Transport Layer: Multiplexing techniques (FDMA, TDMA, CDMA, WDMA), addressing in transport layer, Three way handshake protocol, TCP protocol format, TCP transmission policy, TCP congestion control techniques, UDP format, UDP checksum calculation, SCTP protocol, QoS parameters, Congestion control methods, Traffic shaping algorithms. Session and Presentation layer: Session layer design issues, responsibilities of Presentation layer	
Unit V	[8Hrs]
Application Layer: Responsibilities of Application Layer, Application Layer Services (DNS, E-mail, MIME, SMTP, FTP, TFTP), Architecture of WWW and HTTP Introduction to Wireless Networks: WLAN, Bluetooth, GSM for mobile network	

Text Books

S.N	Title	Authors	Edition	Publisher
1	A course in Computer Networks	Dr. Sanjay Sharma	3 rd	Katson Books
2	Data Communications and Networking	Behrouz A Forouzan	4 th	Mcgraw Hills

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Data and Computer Communications	William Stallings	3 rd	Pearson
2	Computer Networks Principles, Technologies and Protocols for Network Design	Natalia Olifer	Wiley India Student	A-list Publishing

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COMPUTER SCIENCE & ENGINEERING(CYBER SECURITY)

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
CS305T	Information Security Fundamentals	3			3	30	70	100

Course Objectives	Course Outcomes
<p>This course is intended</p> <ul style="list-style-type: none"> Learn fundamentals of cryptography and its application to network security. Understand network security threats, security services, and countermeasures. Understand vulnerability analysis of network security. 	<p>Students will be able to</p> <ul style="list-style-type: none"> Understand and explain the risks faced by computer systems and networks. Analyse Cryptographic techniques. Identify and analyze security problems in computer systems and networks. Explain how standard security mechanisms work. Understand security mechanisms to protect computer systems and networks.

Unit I **[6Hrs]**

Security Fundamentals:
Introduction of information Security, Security goals, Security Services and mechanisms, Attacks, Authentication, Authorization, Chipher Techniques : substitution and transposition ciphers, One-time Pad, Block chipher and Stream Cipher.

Unit II **[8Hrs]**

Cryptography:
Symmetric and Asymmetric Cryptographic Techniques : DES, AES, Attacks on DES, Modes of operations, Linear cryptanalysis and differential cryptanalysis, Public key algorithms, RSA, Hash functions- SHA-1, MD5

Unit III **[8Hrs]**

Key management
Generation, Distribution, updation, Digital certificate, X.509 certificates, Digital signatures, Diffie hellman key exchange, One way authentication, Kerberos.

Unit IV **[8Hrs]**

Network Security
Security concerns, Introduction to IPSEC, Tunnel mode, Transport mode, Introduction to handshake protocols, Record layer protocol, Internet Key Exchnage protocol(IKE)

Unit V **[8Hrs]**

Security in Networks:
Threats in networks, Network Security Controls – Architecture, Encryption, Content Integrity, Strong Authentication, Access Controls, Wireless Security, Honeypots, Traffic flow security, Firewalls – Design and Types of Firewalls, Personal Firewalls, IDS, Email Security – PGP,S/MIME

Text Books

S.N	Title	Authors	Edition	Publisher
1	Applied Cryptography- Protocols, Algorithms and source code in “c”	Bruice Schneier	II Edition	Wiley India Pvt ltd
2	Network Security and Cryptography	Bernard Menzees	I Edition	Cengage Learning

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Cryptography and Network Security Principal and Practice	William Stalling	-	Pearson edition
2	Cryptography and Network Security	Berouz Forouzan	I	Tata Mc Graw Hill

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COMPUTER ENGINEERING

THIRD SEMESTER

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
CS306P	Computer Lab-I			2	1	25	25	50

Course Objectives	Course Outcomes
<p>This course is intended to</p> <ul style="list-style-type: none">render content on the World Wide WebTo develop the ability design dynamic the web pages.To learn XML and it's use in developing webpages	<p>Student will be able to</p> <p>Analyze a web page and identify its elements and attributes.</p> <ul style="list-style-type: none">Create web pages using DHTML and Cascading Style Sheets.Build dynamic web pages using Scripting language.Create XML documents and DTD's.Build interactive web pages using AJAX.

Expt. No.	Title of the experiment
1	Introduction to World Wide Web.
2	Implementation of basic HTML Tags a. Create a webpage using text formatting tags, ordered - unordered lists b. Create a webpage illustrating table and its attributes c. Create a webpage that illustrate image tag and hyperlink d. Develop a webpage that embed audio and video e. Create a form using HTML.
3	Develop and demonstrate DHTML. a. Design a webpage using Inline CSS b. Design a webpage using External CSS c. Design a webpage using Inline CSS
4	Develop a script performing form validation.
5	Develop an XML document and validate it using DTD
6	Create a simple XMLHttpRequest, and retrieve data from a TXT file using AJAX.
7	Case study of Apache server.

Text Books

S.N	Title	Authors	Edition	Publisher
1	HTML - The Complete Reference	Thomas A. Powell	Fifth edition	Mc Graw Hill
2	HTML and CSS: Design and Build Websites	John Duckett	First Edition	PHI

Reference Books

S.N	Title	Authors	Edition	Publisher
1	Learning Web Design A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics	Jennifer Robbins	Fifth edition	O' REILLY

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