Lesson Plan

Discipline : Computer Engineering
Semester : 2nd
Subject : Multimedia Applications
Lesson Plan Duration :From 15 January 2026 to 30 April 2026
Work Load (Lecture) per week (in hours): Lectures-02 and Lab-04

Week	Theory		
	Lecture day	**Topic (including assignment / test)**	**Practicals**
1st	**1st**	Introduction to Multimedia System; Components and tools of multimedia	Study of Adobe Flash Tool
	2nd	Applications of Multimedia	
2nd	**3rd**	Multimedia file audio/video format; Media, File Format and types of media files	Frame by Frame Animation
	4th	Basic Multimedia hardware and software requirements. Quality, criteria and specification of hardware component	
3rd	**5th**	Difference between Analog and Digital Signal	Motion Tweening
	6th	Modulation and Digital Recording; Search of Digital Recording by converting sound into numbers	
4th	**7th**	Sound Card Connection, History of Sound Card. Types of Sound Card; Area of computer to use sound card, advantages of external sound card	Shape Tweening
	8th	Function of Playback and recording, MIDI, Components of MIDI, MIDI Connectors, Features and working of MIDI	
5th	**9th**	Revision	Practice
	10th	Sessional 1	
6th	**11th**	Hardware Requirement for text	Single Layer Masking
	12th	Software Requirement for text	
7th	**13th**	Coloring of Text	Double Layer Masking
	14th	Fundamental Image Processing Steps	
8th	**15th**	Types of Image Processing	Adding Video Clips
	16th	Digital Image Editing	
9th	**17th**	Class Test	Movie Clip, Buttons
	18th	Animation Techniques	

10th	**19th**	Revision	Practice
	20th	Sessional 2	
11th	**21st**	Digital Video fundamentals	Publishing of Flash Movie
	22nd	Relationship between pixel and video bitrate	
12th	**23rd**	Steps to create high quality video	Study of Adobe Photoshop Tools
	24th	Digital Video Production Techniques	
13th	**25th**	Revision	Image Editing in Photoshop
	26th	Authoring Tools and their features	
14th	**27th**	Classification of Authorizing Tools	Applying Special Effects
	28th	Multimedia Project Planning and Costing	
15th	**29th**	Multimedia team	Practice
	30th	Sessional 3	

Lesson Plan

Discipline : Computer Engg.

Semester :2ND

Subject : Advance in information technology

Lesson Plan Duration : 15 weeks(from 15 January 2026 to 30 April 2026)

Work Load(Lecture/Practical)per week(in hours):Lectures-02,Practical-04

Week	Theory		Practical	
	Lecture day	Topic	Practical week	Topic
1st	1st	**UNIT I** **HTML Fundamentals** Introduction to HTML- Characteristics of HTML language, Structure of a HTML page. Describing Tags.	1st	1. Creating an HTML document
	2nd	How to create a HTML document? Viewing HTML document, commonly used web browsers. HTML4 – List of Tags in HTML4, HTML tags:.		
2nd	3RD	Container elements, empty elements. Using tags, Heading, Paragraph, Changing appearance of text (bold, italics, underline, subscript, superscript)	2nd	2. Working with Mark up Tags
	4TH	center tag, title tag. Changing font size, text color and background, Changing the background color and background of HTML page		
3rd	5th	Top marging, left margin, & nbsp,<hr> and its attributes	3rd	3. Working with Heading-Paragraphs
	6th	Revision		
4th	7th	Test	4th	4. Working with Text 5. Working with Lists
	8th	**Working with HTML** Using list and images: Unordered lists: type attribute. Ordered lists: start attribute, type attribute, value attribute.		
5th	9th	Nested lists. Inserting images, aligning an image, centering image, adding border to a image, alternate text,	5th	6. Working with Tables and Frames 7. Working with Hyperlinks 8. Working with Images and Multimedia 9. Working with Forms and controls.
	10th	setting height and width, adding space around the image. Working with links: Anchor elements, creating hyperlink to a document.		

6th	11th	Internal linking and external linking.	6th	10. Create a HTML form with Name, Password and Confirm Password Write a Java script to validate if Password and Confirm Password field values are same. 11. Write a Java script to animate a simple Image using set Timeout.
	12th	Assignment		
7th	13th	Test	7th	12. Write a Java script to illustrate auto refreshing in your own Web page. 13. Develop a simple calculator using Java script.
	14th	**Designing with HTML** Creating tables: Creating a table, attributes of table tag		

Week	Theory		Practical	
	Lecture day	Topic (includingassignment/test)	Practical Day	Topic
8th	15TH	(BORDER, BORDERCOLOR, BGCOLOR, ALIGN, CELLSPACING, CELLPADING, WIDTH) Attributes of table row <tr> and table data <td>	8th	14. Write a Java script to illustrate the use of cookies in your own Web page. 15. Write a Java script to prompt two integer numbers from the user and display the sum of them. .
	16TH	tag (BORDERCOLOR, BGCOLOR, ALIGN, VALIGN, HEIGHT). Row span and Col span. Working with Frames.		
9th	17th	Use and creating frames. Introduction to Forms Steps for developing a Website	9th	16. Write a Java script to greet the user with “Good Morning” or “Good Afternoon” or “Good Evening” depending on the current time.
	18th	Assignment		
10th	19th	Test	10th	17. Generate a Digital Clock using Java script.
	20th	**JAVA Script Overview and Core Language Features**		
11th	21st	Introduction to Scripting Languages, JavaScript Implementation-ECMAScript-DOM-BOM-Values-Variables-Literals-Constants-Operators a	11th	18. Write a Java script to change the background color of the image in definite time intervals
	22nd	Expressions-Regular Expressions Conditional Branching Statements- Conditional Looping Statements-Functions		
12th	23rd	Creating Simple Java Script page-Adding JavaScript page into HTML	12th	Revision
	24th	Assigment		
13th	25th	Test	13th	Revision
	26th	**Document Access**		

		The Document Object Model: Mapping your HTML -Text Nodes-Attribute Nodes Accessing the Nodes you Want:		
14th	27th	Finding an Element by ID-Finding Elements by Tag Name-Finding Elements by Class Name;	14th	Revision
	28th	Navigating the DOM Tree-Interacting with Attributes - Changing Styles		
15th	29th	Changing Styles with Class and Id-Font-Table Layout-Text Properties- Padding, Borders and Margins	15th	Revision
	30th	Revision		

Lesson Plan

Discipline: Computer Engg

Semester: 4TH

Subject: Data Structures Using C

Lesson Plan Duration: 15 Weeks (From 15 January 2026 to 30 April 2026)

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/test)	Pr Day	Topic
1st	1st	Problem solving concept, top down and bottom up design	1	Inserting elements in array
	2nd	structured programming Concept of data types, variables and constants		
	3rd	Concept of pointer variables and constants, Introduction to data Structure	2	Inserting elements in array
2nd	4th	Array, Linked List, Stack,	3	deleting elements in array
	5th	Queue, Trees, graphs	4	deleting elements in array
	6th	Revision		
3rd	7th	Concept of Arrays,	5	The addition of two matrices using functions
	8th	Single dimensional array		
	9th	Two dimensional array	6	The addition of two matrices using functions
4th	10th	Representation of Two dimensional Array (Base Address, LB, UB)	7	Insertion of elements in linked list
	11th	searching,		
	12th	traversing,	8	Deletion of elements in linked list
5th	13th	Inserting	9	Insertion of elements in doubly linked list
	14th	Inserting		
	15th	deleting	10	Deletion of elements in doubly linked list
6th	16th	Revision	11	Viva-Voce/File Check
	17th	**Test**	12	Push and pop operation in stack
	18th	Introduction to linked list and double linked list Representation of linked lists in Memory		
7th	19th	Comparison between Linked List and Array Traversing a linked list Searching linked list	13	Conversion from in-Fix to postfix notation
	20th	Insertion, deletion into linked list (At first Node, Specified Position, Last)	14	Conversion from infix to postfix notation
	21st	Application of linked lists		

8th	22nd	Doubly linked lists	15	The factorial of a given number using recursion
	23rd	Traversing Doubly linked lists		
	24th	Insertion and deletion into doubly linked lists	16	Fibonacci Series using recursion
9th	25th	Introduction to stacks, Representation of stacks with array and Linked List	17	Insertion and Deletion of elements in queue using pointers
	26th	Implementation of stacks	18	Insertion and Deletion of elements in queue using pointers
	27th	Application of stacks: Polish Notations		
10th	28th	Converting Infix to Post Fix Notation	19	Insertion of elements in circular queue using pointer
	29th	**Test**		
	30th	Evaluation of Post Fix Notation, Tower of Hanoi Recursion: Concept and Comparison between recursion and Iteration	20	Deletion of elements in circular queue using pointers
11th	31st	Introduction to queues, Implementation of queues using array algorithm	21	File Check/Revision/Viva
	32nd	Implementation of queues using Linked List with algorithm		
	33rd	Circular Queues , De-queues	22	Traversing of tree
12th	34th	Concept of Binary Trees, Concept of representation of Binary Tree	23	Heap Sort
	35th	Concept of balanced Binary Tree		
	36th	Traversing Binary Trees (Pre order, Post order and In order)	24	The linear search procedures to search an element in given list
13th	37th	Searching,	25	The binary search procedures to search an element in a given list
	38th	inserting in binary search trees, deleting in binary search trees		
	39th	Linear Search algorithm, Binary Search algorithm	26	The bubble sort techniques
14th	40th	Concept of sorting , Bubble Sort, Insertion Sort	27	The selection sort techniques
	41st	Selection Sort		
	42nd	Merge Sort, Radix Sort	28	The quick sort technique
15th	43rd	Heap Sort	29	The merge sort technique
	44th	Test		
	45th	Revision	30	File Check/Viva voce

Lesson Plan (OOPS Using JAVA)

Discipline: Computer Engg.
Semester: 4th
Subject: OOPS Using JAVA
Lesson Plan Duration: (From 15 Jan, 2026 to 30 April, 2026)
Work Load (Lecture/Practical) per week (In hour): Lecture-02, Practical - 04

WEEK	THEORY		PRACTICAL	
1st	**LECTURE DAY**	**TOPIC**	**PRACTICALDAY/ PERIOD**	**TOPIC**
	1	**UNIT 1 INTRODUCTION AND FEATURES** Fundamentals of object-oriented programming	1-4	1. Write a program in JAVA to print "Hello" using classes.
	2	Procedure oriented programming Vs. object-oriented programming (OOP)		
		Object oriented programming concepts– Classes, object, object reference		
2nd	**1**	Abstraction, encapsulation	1-4	2. Write a program to input using Scanner Class.
	2	Inheritance, polymorphism		
		Introduction of eclipse (IDE) for developing programs in Java		
3rd	**1**	**UNIT 2 LANGUAGE CONSTRUCTS** Review of constructs of C used in JAVA: variables	1-4	3. Write a program to print factorial of a Number.
	2	Types and type declarations		
		Datatypes		
4th	**1**	Increment operators	1-4	4. Write a program to create a Class and make objects of that class.
	2	Decrement operators		
		Relational and logical operators		
5th	**1**	If then else clause; conditional expressions	1-4	5. Create a class with data members Feet, Inches and add them.
	2	Input using scanner class and output statement		
		Loops, switch case, arrays, methods		
6th	**1**	CLASSES AND OBJECTS Creation	1-4	6. Create a class using constructors.
	2	Accessing class members		
		Private Vs Public Vs Protected Vs Default		
7th	**1**	Constructors	1-4	7. Create a class and show the use of Single inheritance.
	2	Object		
		Object Reference		

8th	**1**	**UNIT 3 INHERITANCE and Polymorphism** Definition of inheritance	1-4	8. Create a class and show the use of multiple inheritance.
	2	Protected data		
		Public data, Constructor chaining		
9th	**1**	Order of invocation	1-4	9. Create a class and show the use of multi-level inheritance.
	2	Types of inheritance		
		Single inheritance		
10th	**1**	Multilevel inheritance,	1-4	10. Create a class showing the use of Constructor Overloading.
	2	Hierarchical inheritance		
		Hybrid inheritance		
11th	**1**	POLYMORPHISM Method overloading	1-4	11. Create a program showing the use of Interfaces.
	2	Constructor overloading		
		Method overriding		
12th	**1**	Up-casting	1-4	12. Create a program using Try and Catch Block.
	2	Down-casting		
		UNIT 4 ABSTRACT CLASS & INTERFACE Key points of Abstract class		
13th	**1**	Interface	1-4	Revision
	2	Difference between an abstract class & interface		
		Implementation of multiple inheritance Through interface		
14th	**1**	**UNIT 5 EXCEPTION HANDLING** Definition of exception handling	1-4	Revision
	2	Implementation of keywords like try		
		Catch,finally		
15th	**1**	Throw & Throws	1-4	Revision
	2	Importance of exception handling in practical implementation of live projects		
		REVISION		
16th	**1**	**TEST**	1-4	Revision
	2	**REVISION**		
		REVISION		

LESSON PLAN

DISCIPLINE : COMPUTER ENGINEERING
SEMESTER : 4TH
SUBJECT : MOOC (DIGITAL MARKETING)
DURATION : From 15 January 2026 to 30 April 2026
Work Load (Lecture/ Practical) per week (in hours): Lectures-2

Week	Theory	
	Lecture/Day	**Topic (including assignment / test)**
1st	1st	Introduction to Digital Marketing and its Significance
	2nd	Traditional Marketing Vs Digital Marketing, Digital Marketing Process
2nd	3rd	Website Planning and Development: Types of websites
	4th	Website Planning and Development: Keywords
3rd	5th	Understanding Domain and Webhosting
	6th	Building Website/Blog using CMS WordPress
4th	7th	Introduction to Search Engine Optimization, Keyword P lanner Tools
	8th	On Page SEO Techniques-Indexing and Key Word Placement
5th	9th	On Page SEO Techniques- Content Optimization, On Page SEO: Yoast SEO Plug-in, Off –Page SEO Techniques
	10th	**Sessional Test I**
6th	11th	Email Marketing- Introduction and Significance, designing e-mail marketing campaigns using Mail Chimp
	12th	Building E-mail List and Signup Forms
7th	13th	Email Marketing Strategy and Monitoring, Email –Atomization
8th	14th	Pay Per Click Advertising: Introduction, Pay Per Click Advertising: Google Adword
	15th	Types of Bidding strategies
	16th	Designing and Monitoring search campaigns, Designing g and Monitoring Display campaigns
9th	17th	Designing and Monitoring Video campaigns
	18th	Designing g and Monitoring Universal App Campaigns
10th	19th	Google Analytics: Introduction and Significance, Google Analytics Interface and Setup
	20th	**Sessional Test II**
11th	21st	Understanding Goals and Conversions
	22nd	Monitoring Traffic Behavior and preparing Reports

12th	23rd	Social Media Marketing: Introduction and Significance, Facebook Marketing: Introduction Types of Various Ad Formats
	24th	Setting up Facebook Advertising Account
13th	25th	Understanding Facebook Audience and its Types,
	26th	Designing Facebook Advertising Campaigns
	27th	Working with Facebook Pixel
14th	28th	Twitter Marketing: Basics, Designing Twitter Advertising Campaigns
	29th	Introduction to LinkedIn Marketing, Developing digital marketing strategy in Integration form
15th	30th	**Sessional Test III**
		Revision

Lesson Plan

Discipline : Computer Engineering
Semester : 4th
Subject : Computer Organization & Architecture
Lesson Plan Duration : 15 Weeks (15 Jan to 30 April 2026)
Work Load (Lecture/ Practical) per week (in hours): Lectures-04,

Week	Theory	
	Lecture day	**Topic (including assignment / test)**
1st	1st	Hardware organisation of computer system CPU organisation : general register organisation
	2nd	Stack organisation
	3rd	Instruction formats(three address, two address, one address
	4th	Zero address and RISC instruction)
2nd	5th	Addressing modes: Immediate, register, direct, in direct, relative, indexed
	6th	CPU Design : Microprogrammed vs hard wired control
	7th	Reduced instruction set computers:,
	8th	RISC characteristics,
3rd	9th	CISC characteristics and their comparison with RISC
	10th	2. Memory organisation Memory Hierarchy
	11th	RAM Chips
	12th	ROM chips
4th	13th	Memory address map
	14th	Memory connections to CPU
	15th	Auxillary memory : Magnetic disks
	16th	magnetic tapes.
5th	17th	Associative memory
	18th	Cache memory, Virtual memory
	19th	Memory management hardware ,
	20th	Read and Write operation
6th	21st	Sessional test-I
	22nd	3. I/O organisation

	23rd	a. Basis Input output system(BIOS)
	24th	Function of BIOS o Testing
7th	25th	Function of BIOS o Testing and initialization
	26th	Configuring the system
	27th	b. Modes of Data Transfer o
	28th	Programmed I/O
8th	29th	Synchronous, asynchronous and interrupt initiated.
	30th	DMA data transfer
	31st	4. Architecture of multi processor systems
	32nd	Forms of parallel processing
9th	33rd	Parallel processing
	34th	and pipelines
	35th	basic characteristics of multiprocessor
	36th	multiprocessors
10th	37th	General purpose multiprocessors’
	38th	Interconnection networks
	39th	time shared common bus
	40th	time shared common bus
11th	41st	Sessional test-II
	42nd	multi port memory
	43rd	cross bar switch
	44th	Switch in memory
12th	45th	multi stage switching networks
	46	hyper cube structures
	47	hyper cube structures
	48	switching networks revise
13th	49	Introduction to I/O interface
	50	Types of I/O Interface
	51	Asynchronous Data Transfer
	52	Revise

14th	53	Synchronous Data Transfer
	54	Strobe Control
	55	Difference between Asynchronous & Synchronous
	56	Serial Transfer
15th	57	Handshaking Mechanism in DT
	58	Describe Asynchronous Serial Transfer
	59	Revise
	60	Sessional Test-III

Lesson Plan

Discipline : **Computer Engg.**

Semester : **6 th**

Subject : **Software Engg.**

15 weeks From 15 January 2026 to 30 April 2026

Work Load (Lecturer per week) and (Practical per Week) = 3 Lectures 0 Practical)

Week	Theory	
	Lecture Day	Topic (including assignment/test)
1st	1	Introduction to software engineering, Programmes v/s Software Products
	2	Concept of systems, Types of systems: Open, closed, static and dynamic Systems
	3	Emergence of Software Engineering- Early Computer Programming, High-level Language Programming, Control flow based Design,
2nd	4	Data Structure Oriented Design, Object Oriented Design
	5	Revision and Assignment
	6	Software life cycle models, Requirement of Life Cycle Model
3rd	7	Classic Waterfall Model, Iterative Model with their advantage and disadvantage
	8	Prototyping Model with their advantage and disadvantage
	9	Evolutionary Model with their advantage and disadvantage
4th	10	Spiral Model with their advantage and disadvantage
	11	Introduction to Agile Model with their advantage and disadvantage
	12	Comparison of different Life Cycle Models
5th	13	Revision and Assignment
	14	Revision and Class test
	15	Sessional Test
6th	16	Software planning, Responsibilities of Software Project Manager
	17	Metrics for Project Size Estimation- LOC (Lines of Code),
	18	Function Point Metric
7th	19	Project estimation Techniques- Using COCOMO Model.
	20	Project estimation Techniques- Using COCOMO Model.
	21	Software Requirement Specifications (SRS),

8th	22	Characteristics of good SRS
	23	Revision and Assignment
	24	Software design and implementation, Characteristics and features of good Software Design
9th	25	Cohesion and Coupling
	26	Software design Approaches- Function Oriented Design (Data flow diagrams, Data dictionary, Decision Trees and tables),
	27	Function Oriented Design (Data flow diagrams, Data dictionary, Decision Trees and tables),
10th	28	Object Oriented Design,
	29	Structured Coding Techniques
	30	Coding Styles, documentation.
11th	31	Revision and Assignment
	32	Revision and Class test
	33	Sessional Test
12th	34	Software testing: Concept of Testing
	35	Verification v/s Validations
	36	Black Box Testing
13th	37	White Box Testing
	38	Unit Testing
	39	Integration testing
14th	40	System testing
	41	Introduction to Configuration Management.
	42	Introduction to Configuration Management.
15th	43	Revision and Assignment
	44	Revision and Class test
	45	Sessional Test
16th	46	Revision and Class test
	47	Revision and Class test
	45	Revision and Class test

Lesson Plan

Discipline : Computer Engg.

Semester : 6th

Subject : EDM

Lesson Plan Duration : 15 weeks From 15 Jan 2026 to 30 April 2026

****Work load (Lecture / Practical) per week (in hours): Lectures-03, Practicals -Nil**

Week	Theory		Practical	
	Lecture day	Topic (Including assignment / test)	Practical Day	Topic
1st	1st	**SECTION – A ENTREPRENEURSHIP Chapter 1. Introduction**	N/A	N/A
		Concept /Meaning and its need, Qualities of entrepreneur	N/A	N/A
	2nd	Functions of entrepreneur and barriers in entrepreneurship	N/A	N/A
	3rd	Sole proprietorship and partnership forms of business organisations	N/A	N/A
2nd	4th	Schemes of assistance by entrepreneurial support agencies at National, State, District –level, organisation: NSIC, NRDC	N/A	N/A
	5th	DC, MSME, SIDBI	N/A	N/A
	6th	NABARD, Commercial Banks	N/A	N/A
3rd	7th	SFC's TCO, KVIB, DIC	N/A	N/A
	8th	Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks	N/A	N/A
	9th	**Revision**	N/A	N/A
4th	10th	**Chapter 2. Market Survey and Opportunity Identification**	N/A	N/A
		Scanning of the business environment	N/A	N/A
	11th	Salient features of National and State industrial policies and resultant	N/A	N/A
	12th	Types of market survey	N/A	N/A
5th	13th	Conduct of market survey	N/A	N/A
	14th	Assessment of demand and supply in potential areas of growth	N/A	N/A
	15th	Identifying business opportunity, Considerations in product selection	N/A	N/A
6th	16th	Sessional-1	N/A	N/A
	17th	**Revision Assignment No. 1: (inclluding Unit 1 & Unit 2)**	N/A	N/A
	18th	**Test**	N/A	N/A
7th	19th	**Chapter 3. Project report Preparation**	N/A	N/A
		Preliminary project report	N/A	N/A
	20th	Detailed project report	N/A	N/A
	21st	Technical, economic feasibility	N/A	N/A
8th	22nd	Market feasibility	N/A	N/A

	23rd	Common errors in project report preparations	N/A	N/A
	24th	Exercises on preparation of project report	N/A	N/A
9th	25th	**SECTION –B MANAGEMENT** **Chapter 4. Introduction to Management**	N/A	N/A
		Definitions and importance of management, Principles of management (Henri Fayol, F.W. Taylor)	N/A	N/A
	26th	Functions of management: Importance and process of planning, organizing, staffing, directing and controlling	N/A	N/A
	27th	Concept and structure of an organisation, Types of industrial organisations a) Line organization, b) Line and staff organisation c) Functional Organisation	N/A	N/A
10th	28th	Sessional 2	N/A	N/A
	29th	**Chapter 5. Leadership and Motivation**	N/A	N/A
		a) Leadership Definition and Need, Qualities and functions of a leader	N/A	N/A
	30th	Manager Vs leader, Types of leadership **b) Motivation** Definitions and characteristics	N/A	N/A
11th	31st	Factors affecting motivation, Theories of motivation (Maslow, Herzberg, Douglas, McGregor) **Assignment No. 2: (including Unit 3,4 & 5)**	N/A	N/A
	32nd	**Revision**	N/A	N/A
	33rd	**Test**	N/A	N/A
12th	34th	**Chapter 6. Management Scope in Different Areas**	N/A	N/A
		a) Human Resource Management Introduction and objective, Introduction to Man power planning,	N/A	N/A
	35th	Recruitment and selection, introduction to performance appraisal methods	N/A	N/A
	36th	**b) Material and Store Management** Introduction functions, and objectives	N/A	N/A
13th	37th	ABC Analysis and EOQ **c) Marketing and sales** Introduction, importance, and its functions	N/A	N/A
	38th	Physical distribution, Introduction to promotion mix, Sales promotion	N/A	N/A
	39th	**d) Financial Management** Introduction, importance and its functions,	N/A	N/A
14th	40th	Elementary knowledge of income tax, sales tax, excise duty, custom duty and VAT	N/A	N/A
		Chapter 7. Miscellaneous Topics	N/A	N/A

	41st .	**a) Customer Relation Management (CRM)** Definition and need, Types of CRM	N/A	N/A
	42nd	**b) Total Quality Management (TQM)** Statistical process control, Total employees Involvement, Just in time (JIT)	N/A	N/A
15th	43rd	Introductions, definition and its importance, Infringement related to patents, copy right, trade mark	N/A	N/A
	44th	**Revision Assignment No. 3: (including Unit 7 & Unit 8)**	N/A	N/A
	45th	**Test**	N/A	N/A
16th	46th	Sessional 3, Revision unit 1,2,3,4	N/A	N/A

LESSON PLAN

Discipline : Computer Engineering
Semester : 6th
Subject : Network Security Lesson Plan
Duration : 15 Weeks

From 15 January 2026 to 30 April 2026

Work Load (Lecture / Practical) per week (In hours): Lecture-2, Practical-4)

Week	Theory	
	Lecture Day	**Topic (Including Assignment / Test)**
1	1	Introduction to Network Security
	2	Need for securing a network
	3	Principles of Security
2	1	Type of attacks, introduction to cyber-crime
	2	cyber law-Indian Perspective
	3	IT Act 2000 and amended 2008, cyber ethics, ethical hacking
3	1	Hacking, Skimming, attacker, phreaker, hackivist,
	2	bluejacking, bluesnarfing,, IOS Jailbreaking.
	3	Assignment and Revision
4	1	Introduction to basic encryption and decryption
	2	concept of symmetric and asymmetric key cryptography,
	3	overview of DES
5	1	Overview of RSA and PGP
	2	Introduction to Hashing
	3	MD5, SSL, SSH, HTTPS,
6	1	Digital Signatures
	2	Digital certification, IPSec.
	3	Assignment and Revision
7	1	VIRUS, WORMS AND TROJANS, introduction
	2	Various preventive measures.
	3	Test 1
8	1	preventive measures – access central, checksum verification, process configuration,
	2	virus scanners, heuristic scanners,
	3	application level virus scanners
9	1	deploying virus protection
	2	Zombie, Ransomware.
	3	Assignment and Revision
10	1	FIREWALLS, Introduction
	2	Definition and types of firewalls
	3	firewall configuration
11	1	Test 2
	2	Limitations of firewall
	3	Whitelisting Vs blacklisting.
12	1	Assignment and Revision
	2	Overview of Firewall, Limitations, Types, etc.
	3	HANDLING CYBER ASSETS,
13	1	Configuration policy as per standards, Disposable policy.
	2	VIRTUAL PRIVATE NETWORK (VPN), Introduction
	3	Basics, setting of VPN, VPN diagram, configuration of required objects,
14	1	exchanging keys, modifying security policy
	2	DISASTER AND RECOVERY,
	3	Disaster categories; network disasters – cabling, topology,
15	1	Single point of failure, save configuration files;
	2	server disasters – UPS, RAID, Clustering, Backups, server recovery
	3	Assignment and Revision
	4	Test 3,