

## Lesson Plan

Name of the Faculty : Mrs. Suman

Discipline : Computer Engg.

Semester : VIth

Subject :- APPLICATION DEVELOPMENT USING WEB FRAMEWORK

Lesson Plan Duration :- 15weeks (from 15Jan,2026 to 30 April,2026)

Work load (Practical) per week (in hours) :- Practical-6

Note:- GI and GII are the respective Groups of students

| Week   | Practical       |   |
|--------|-----------------|---|
|        | Practical Group | Topic   |
| Week 1 | G-I             | Practice on HTML, CSS, Java Script  |
|        | G-II            | Practice on HTML, CSS, Java Script  |
|        | G-I             | Practice on Ajax.PHP & MySql  |
|        | G-II            | Practice on Ajax.PHP & MySql  |
| Week 2 | G-I             | Install WordPress & Create Blogs  |
|        | G-II            | Install WordPress & Create Blogs  |
|        | G-I             | Practice  |
|        | G-II            | Practice  |
| Week 3 | G-I             | Manage blogs features e.g. Images, Text Around Images, Comments, Post Formats, Linking, Pages, Categories, Smilies, Feeds, Gravatars, Password Protection |
|        | G-II            | Manage blogs features e.g. Images, Text Around Images, Comments, Post Formats, Linking, Pages, Categories, Smilies, Feeds, Gravatars, Password Protection |
|        | G-I             | Manage blogs features e.g. Images, Text Around Images, Comments, Post Formats, Linking, Pages, Categories, Smilies, Feeds, Gravatars, Password Protection |
|        | G-II            | Manage blogs features e.g. Images, Text Around Images, Comments, Post Formats, Linking, Pages, Categories, Smilies, Feeds, Gravatars, Password Protection |
| Week 4 | G-I             | Practice / viva   |
|        | G-II            | Practice / viva   |
|        | G-I             | Practice various designing features: Colour Scheme, Headers, CSS Horizontal Menus, Dynamic Menu, Highlighting, Navigation Links, Print                    |
|        | G-II            | Practice various designing features: Colour Scheme, Headers, CSS Horizontal Menus, Dynamic Menu, Highlighting, Navigation Links, Print                    |
| Week 5 | G-I             | Practice various designing features: Colour Scheme, Headers,  |

|         |      |  |
|---------|------|--|
|         |      | CSS Horizontal Menus, Dynamic Menu, Highlighting, Navigation Links, Print  |
|         | G-II | Practice various designing features: Colour Scheme, Headers, CSS Horizontal Menus, Dynamic Menu, Highlighting, Navigation Links, Print |
|         | G-I  | Read More, Formatting Date and Time, Finding CSS Styles, Creating Individual Pages   |
|         | G-II | Read More, Formatting Date and Time, Finding CSS Styles, Creating Individual Pages   |
| Week 6  | G-I  | Uploading Files, Using WordPress Themes, Templates, Template Tags, Template Hierarchy,   |
|         | G-II | Uploading Files, Using WordPress Themes, Templates, Template Tags, Template Hierarchy  |
|         | G-I  | Practice   |
|         | G-II | Practice   |
| Week 7  | G-I  | Validating a Website, Know Your Sources, WordPress Site Maintenance  |
|         | G-II | Validating a Website, Know Your Sources, WordPress Site Maintenance  |
|         | G-I  | Validating a Website, Know Your Sources, WordPress Site Maintenance  |
|         | G-II | Validating a Website, Know Your Sources, WordPress Site Maintenance  |
| Week 8  | G-I  | Integrate PHP & MySql with WordPress   |
|         | G-II | Integrate PHP & MySql with WordPress   |
|         | G-I  | Practice   |
|         | G-II | Practice   |
| Week 9  | G-I  | Install Moodle & various plugins   |
|         | G-II | Install Moodle & various plugins   |
|         | G-I  | Create a Moodle site and Database Schema   |
|         | G-II | Create a Moodle site and Database Schema   |
| Week 10 | G-I  | Create a Moodle site and Database Schema   |
|         | G-II | Create a Moodle site and Database Schema   |
|         | G-I  | Design Site appearance, Front page, Front page settings  |
|         | G-II | Design Site appearance, Front page, Front page settings  |
| Week 11 | G-I  | My Moodle, User profiles, Navigation, Course list, Themes, Theme settings, Header and footer, Language settings                        |
|         | G-II | My Moodle, User profiles, Navigation, Course list, Themes, Theme settings, Header and footer, Language settings                        |
|         | G-I  | Using web services, Publishing a course, Blogs, RSS feeds  |
|         | G-II | Using web services, Publishing a course, Blogs, RSS feeds  |
| Week 12 | G-I  | Practice / viva  |
|         | G-II | Practice / viva  |
|         | G-I  | Manage Moodle site, Managing authentication, Manual accounts, No login   |
|         | G-II | Manage Moodle site, Managing authentication, Manual accounts, No login   |
| Week 13 | G-I  | Email-based self-registration, Account   |
|         | G-II | Manual accounts, No login, Email-based self-registration, Account  |

|         |      |   |
|---------|------|---|
|         | G-I  | Create Roles and permissions, Assign roles, |
|         | G-II | Create Roles and permissions, Assign roles, |
| Week 14 | G-I  | Implement Password salting.                 |
|         | G-II | Implement Password salting.                 |
|         | G-I  | Perform Site backup, Course backup          |
|         | G-II | Perform Site backup, Course backup          |
| Week 15 | G-I  | Course restore, Automated course backup     |
|         | G-II | Course restore, Automated course backup     |
|         | G-I  | Practice / viva                             |
|         | G-II | Practice / viva                             |



## Lesson Plan

**Name of faculty** : Mr. Dharamveer saini  
**Discipline** : Computer Engineering  
**Semester** : 4th  
**Subject** : Computer Organization & Architecture  
**Lesson Plan Duration** : 15 Weeks (15Jan to 30 May)  
**Work Load (Lecture/ Practical) per week (in hours):** Lectures-04,

| Week            | Theory           |  |
|-----------------|------------------|--|
|                 | Lecture day      | Topic<br>(including assignment / test)   |
| 1st             | 1st              | Hardware organisation of computer system<br>CPU organisation : general register organisation |
|                 | 2nd              | Stack organisation   |
|                 | 3rd              | Instruction formats(three address, two address, one address                                  |
|                 | 4 <sup>th</sup>  | Zero address and RISC instruction)   |
| 2 <sup>nd</sup> | 5 <sup>th</sup>  | Addressing modes: Immediate, register, direct, in direct, relative, indexed                  |
|                 | 6 <sup>th</sup>  | CPU Design : Microprogrammed vs hard wired control   |
|                 | 7 <sup>th</sup>  | Reduced instruction set computers:,  |
|                 | 8 <sup>th</sup>  | RISC characteristics,  |
| 3rd             | 9 <sup>th</sup>  | CISC characteristics and their comparison with RISC  |
|                 | 10 <sup>th</sup> | 2. Memory organisation Memory Hierarchy  |
|                 | 11 <sup>th</sup> | RAM Chips  |
|                 | 12 <sup>th</sup> | ROM chips  |
| 4 <sup>th</sup> | 13 <sup>th</sup> | Memory address map   |
|                 | 14 <sup>th</sup> | Memory connections to CPU  |
|                 | 15 <sup>th</sup> | Auxillary memory : Magnetic disks  |
|                 | 16 <sup>th</sup> | magnetic tapes.  |
| 5 <sup>th</sup> | 17 <sup>th</sup> | Associative memory   |
|                 | 18 <sup>th</sup> | Cache memory, Virtual memory   |
|                 | 19 <sup>th</sup> | Memory management hardware ,   |
|                 | 20 <sup>th</sup> | Read and Write operation   |
| 6 <sup>th</sup> | 21 <sup>st</sup> | Sessional test-I   |
|                 | 22 <sup>nd</sup> | 3. I/O organisation  |
|                 | 23 <sup>rd</sup> | a. Basis Input output system(BIOS)   |
|                 | 24 <sup>th</sup> | Function of BIOS o Testing   |
| 7 <sup>th</sup> | 25 <sup>th</sup> | Function of BIOS o Testing and initialization  |
|                 | 26 <sup>th</sup> | Configuring the system   |

|                  |                  |  |
|------------------|------------------|--|
|                  | 27 <sup>th</sup> | b. Modes of Data Transfer o                        |
|                  | 28 <sup>th</sup> | Programmed I/O                                     |
| 8 <sup>th</sup>  | 29 <sup>th</sup> | Synchronous, asynchronous and interrupt initiated. |
|                  | 30 <sup>th</sup> | DMA data transfer                                  |
|                  | 31 <sup>st</sup> | 4. Architecture of multi processor systems         |
|                  | 32 <sup>nd</sup> | Forms of parallel processing                       |
| 9 <sup>th</sup>  | 33 <sup>rd</sup> | Parallel processing                                |
|                  | 34 <sup>th</sup> | and pipelines                                      |
|                  | 35 <sup>th</sup> | basic characteristics of multiprocessor            |
|                  | 36 <sup>th</sup> | multiprocessors                                    |
| 10 <sup>th</sup> | 37 <sup>th</sup> | General purpose multiprocessors'                   |
|                  | 38 <sup>th</sup> | Interconnection networks                           |
|                  | 39 <sup>th</sup> | time shared common bus                             |
|                  | 40 <sup>th</sup> | time shared common bus                             |
| 11 <sup>th</sup> | 41 <sup>st</sup> | Sessional test-II                                  |
|                  | 42 <sup>nd</sup> | multi port memory                                  |
|                  | 43 <sup>rd</sup> | cross bar switch                                   |
|                  | 44 <sup>th</sup> | Switch in memory                                   |
| 12 <sup>th</sup> | 45 <sup>th</sup> | multi stage switching networks                     |
|                  | 46               | hyper cube structures                              |
|                  | 47               | hyper cube structures                              |
|                  | 48               | switching networks revise                          |
| 13 <sup>th</sup> | 49               | Introduction to I/O interface                      |
|                  | 50               | Types of I/O Interface                             |
|                  | 51               | Asynchronous Data Transfer                         |
|                  | 52               | Revise   |
| 14 <sup>th</sup> | 53               | Synchronous Data Transfer                          |
|                  | 54               | Strobe Control                                     |
|                  | 55               | Difference between Asynchronous & Synchronous      |
|                  | 56               | Serial Transfer                                    |
| 15 <sup>th</sup> | 57               | Handshaking Mechanism in DT                        |
|                  | 58               | Describe Asynchronous Serial Transfer              |
|                  | 59               | Revise   |
|                  | 60               | Sessional Test-III                                 |



## Lesson Plan

Name of Faculty: Mr. Virender Gupta

Discipline: Computer Engg Semester: 4<sup>TH</sup>

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        | <b>Test</b>   | 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 | <b>Test</b>   |    |   |
|      | 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

Name of the Faculty : Mrs. Swati nautiyal

Discipline : Computer Engg.

Semester : 6th

Subject : EDM

Lesson Plan Duration : From Jan 2026 to April2026

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

| Week | Theory      |   | Practical     |       |
|------|-------------|---|---------------|-------|
|      | Lecture day | Topic<br>(Including assignment / test)  | Practical Day | Topic |
| 1st  | 1st         | <b>SECTION – A ENTREPRENEURSHIP</b><br><b>Chapter 1. Introduction</b>   | 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         | <b>Revision</b>   | N/A           | N/A   |
| 4th  | 10th        | <b>Chapter 2. Market Survey and Opportunity Identification</b>  | 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        | <b>Revision</b> <b>Assignment No. 1: (including Unit 1 &amp; Unit 2)</b>  | N/A           | N/A   |
|      | 18th        | <b>Test</b>   | N/A           | N/A   |
| 7th  | 19th        | <b>Chapter 3. Project report Preparation</b>  | 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        | <b>SECTION –B MANAGEMENT</b><br><b>Chapter 4. Introduction to Management</b>  | 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)<br>Line organization, b) Line and staff organisation c)<br>Functional Organisation | N/A | N/A |
|      |        |   |     |     |
| 10th | 28th   | Sessional 2   | N/A | N/A |
|      | 29th   | <b>Chapter 5. Leadership and Motivation</b>   | N/A | N/A |
|      |        | <b>a) Leadership</b> Definition and Need, Qualities and functions of a leader   | N/A | N/A |
|      |        | Manager Vs leader, Types of leadership<br><b>b) Motivation</b> Definitions and characteristics  | N/A | N/A |
| 11th | 31st   | Factors affecting motivation, Theories of motivation (Maslow, Herzberg, Douglas, McGregor)<br><b>Assignment No. 2: (including Unit 3,4 &amp; 5)</b>               | N/A | N/A |
|      | 32nd   | <b>Revision</b>   | N/A | N/A |
|      | 33rd   | <b>Test</b>   | N/A | N/A |
| 12th | 34th   | <b>Chapter 6. Management Scope in Different Areas</b>   | N/A | N/A |
|      |        | <b>a) Human Resource Management</b> 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>b) Material and Store Management</b> Introduction functions, and objectives  | N/A | N/A |
| 13th | 37th   | ABC Analysis and EOQ c)<br><b>Marketing and sales</b> Introduction, importance, and its functions   | N/A | N/A |
|      | 38th   | Physical distribution, Introduction to promotion mix, Sales promotion   | N/A | N/A |
|      | 39th   | <b>d) Financial Management</b> 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 |
|      | 41st . | <b>Chapter 7. Miscellaneous Topics</b>  | N/A | N/A |
|      |        | <b>a) Customer Relation Management (CRM)</b> Definition and need, Types of CRM  | N/A | N/A |
|      | 42nd   | <b>b) Total Quality Management (TQM)</b> 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   | <b>Revision</b> <b>Assignment No. 3: (including Unit 7 &amp; Unit 8)</b>  | N/A | N/A |
|      | 45th   | <b>Test</b>   | N/A | N/A |
| 16th | 46th   | Sessional 3, Revision unit 1,2,3,4  | N/A | N/A |

## **Govt. Polytechnic, Ambala City**

### **Lesson Plan**

Name of the Faculty : Mrs. Swati Nautiyal  
Discipline : Computer Engineering  
Semester : 2nd  
Subject : Multimedia Applications  
Lesson Plan Duration : 15 weeks (15Jan2026 to 30April2026)  
Work Load (Lecture) per week (in hours): Lectures-02 and Lab-04

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

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

# Govt.Polytechnic, Ambala City

## **Lesson Plan(OOPS Using JAVA)**

Name of the Faculty:

**Madhu Bala**

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           | <b>UNIT1 INTRODUCTION AND FEATURES</b><br>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)                   |                      |  |
|      | 3           | 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   |                      |  |
|      | 3           | Introduction of eclipse(IDE) for developing programs in Java                          |                      |  |
| 3rd  | 1           | <b>UNIT2 LANGUAGE CONSTRUCTS</b><br>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   |                      |  |
|      | 3           | Datatypes   |                      |  |
| 4th  | 1           | Increment operators   | 1-4                  | 4. Write a program to create a Class and make objects of that class. |
|      | 2           | Decrement operators   |                      |  |
|      | 3           | 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  |                      |  |
|      | 3           | Loops,switchcase,arrays,methods   |                      |  |
| 6th  | 1           | <b>UNIT3 CLASSES AND OBJECTS</b><br>Creation  | 1-4                  | 6. Create a class using constructors.                                |
|      | 2           | Accessing class members   |                      |  |
|      | 3           | 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  |                      |  |
|      | 3           | Object Reference  |                      |  |

|      |   |   |     |  |
|------|---|---|-----|--|
| 8th  | 1 | <b>UNIT4 INHERITANCE</b><br>Definition of inheritance                         | 1-4 | 8. Create a class and show the use of multiple inheritance.    |
|      | 2 | Protected data  |     |  |
|      | 3 | 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  |     |  |
|      | 3 | Single inheritance  |     |  |
| 10th | 1 | Multilevel inheritance,   | 1-4 | 10. Create a class showing the use of Constructor Overloading. |
|      | 2 | Hierarchical inheritance  |     |  |
|      | 3 | Hybrid inheritance  |     |  |
| 11th | 1 | <b>UNIT5 POLYMORPHISM</b><br>Method overloading                               | 1-4 | 11. Create a program showing the use of Interfaces.            |
|      | 2 | Constructor overloading   |     |  |
|      | 3 | Method overriding   |     |  |
| 12th | 1 | Up-casting  | 1-4 | 12. Create a program using Try and Catch Block.                |
|      | 2 | Down-casting  |     |  |
|      | 3 | <b>UNIT6 ABSTRACT CLASS &amp; INTERFACE</b><br>Key points of Abstract class   |     |  |
| 13th | 1 | Interface   | 1-4 | Revision   |
|      | 2 | Difference between an abstract class & interface                              |     |  |
|      | 3 | Implementation of multiple inheritance Through interface                      |     |  |
| 14th | 1 | <b>UNIT7 EXCEPTION HANDLING</b><br>Definition of exception handling           | 1-4 | Revision   |
|      | 2 | Implementation of keywords like try   |     |  |
|      | 3 | Catch, finally  |     |  |
| 15th | 1 | Throw & Throws  | 1-4 | Revision   |
|      | 2 | Importance of exception handling in practical implementation of live projects |     |  |
|      | 3 | <b>REVISION</b>   |     |  |
| 16th | 1 | <b>TEST</b>   | 1-4 | Revision   |
|      | 2 | <b>REVISION</b>   |     |  |
|      | 3 | <b>REVISION</b>   |     |  |





# LESSON PLAN

**NAME OF FACULTY** : **Mr. Virender Gupta**  
**DISCIPLINE** : **COMPUTER ENGINEERING**  
**SEMESTER** : **4<sup>TH</sup>**  
**SUBJECT** : **MOOC (DIGITAL MARKETING)**  
**DURATION** : **15 WEEKS (15<sup>TH</sup> JAN TO 30<sup>th</sup> april)**

## Work Load (Lecture/ Practical) per week (in hours): Lectures-2

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

|                  |                  |   |
|------------------|------------------|---|
| 11 <sup>th</sup> | 21 <sup>st</sup> | Understanding Goals and Conversions   |
|                  | 22 <sup>nd</sup> | Monitoring Traffic Behavior and preparing Reports   |
| 12 <sup>th</sup> | 23 <sup>rd</sup> | Social Media Marketing: Introduction and Significance, Facebook Marketing: Introduction Types of Various Ad Formats |
|                  | 24 <sup>th</sup> | Setting up Facebook Advertising Account   |
| 13 <sup>th</sup> | 25 <sup>th</sup> | Understanding Facebook Audience and its Types,  |
|                  | 26 <sup>th</sup> | Designing Facebook Advertising Campaigns  |
|                  | 27 <sup>th</sup> | Working with Facebook Pixel   |
| 14 <sup>th</sup> | 28 <sup>th</sup> | Twitter Marketing: Basics, Designing Twitter Advertising Campaigns  |
|                  | 29 <sup>th</sup> | Introduction to LinkedIn Marketing, Developing digital marketing strategy in Integration form                       |
| 15 <sup>th</sup> | 30 <sup>th</sup> | <b>Sessional Test III</b>   |
|                  |                  | <b>Revision</b>   |

# LESSON PLAN

Name Of Faculty : Madhu Bala  
 Discipline : Computer Engineering  
 Semester : 6<sup>th</sup>  
 Subject : Network Security): Lecture-2, Practical-4)  
 Lesson Plan Duration : 15 Weeks

| Week | Theory      |   | Practical  |
|------|-------------|---|--|
|      | Lecture Day | Topic (Including Assignment / Test)   | Topic to be done in lab                                    |
| 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  | Installation and comparison of various antivirus software. |
|      | 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                                     | Installation and study of various parameters of firewall   |
|      | 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  | Writing program in C to Encrypt/Decrypt using XOR key.     |
|      | 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 control, checksum verification, process configuration, | Study of VPN.  |
|      | 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   | Study of various hacking tools.                            |
|      | 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   | Practical applications of digital signature.               |
|      | 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,   |  |

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

|                 |                  |  |     |   |
|-----------------|------------------|--|-----|---|
| 6 <sup>th</sup> | 11 <sup>th</sup> | 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.<br>11. Write a Java script to animate a simple Image using set Timeout. |
|                 | 12 <sup>th</sup> | Assignment   |     |   |
| 7 <sup>th</sup> | 13 <sup>th</sup> | Test   | 7th | 12. Write a Java script to illustrate auto refreshing in your own Web page.<br>13. Develop a simple calculator using Java script.   |
|                 | 14th             | <b>Designing with HTML</b><br>Creating tables: Creating a table, attributes of table tag |     |   |

| Week             | Theory           |   | Practical     |  |
|------------------|------------------|---|---------------|--|
|                  | Lecture day      | Topic<br>(including assignment/test)  | Practical Day | Topic  |
| 8 <sup>th</sup>  | 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.<br>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.                                    |               |  |
| 9 <sup>th</sup>  | 17th             | Use and creating frames. Introduction to Forms<br>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  |               |  |
| 10 <sup>th</sup> | 19th             | Test  | 10th          | 17. Generate a Digital Clock using Java script.  |
|                  | 20 <sup>th</sup> | <b>JAVA Script Overview and Core Language Features</b>  |               |  |
| 11 <sup>th</sup> | 21 <sup>st</sup> | 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   |
|                  | 22 <sup>nd</sup> | Expressions-Regular Expressions Conditional Branching Statements- Conditional Looping Statements-Functions                        |               |  |
| 12 <sup>th</sup> | 23rd             | Creating Simple Java Script page-Adding JavaScript page into HTML   | 12th          | Revision   |
|                  | 24th             | Assignment  |               |  |
| 13 <sup>th</sup> | 25th             | Test  | 13th          | Revision   |
|                  | 26th             | <b>Document Access</b>  |               |  |

|                  |      |  |      |          |
|------------------|------|--|------|----------|
|                  |      | The Document Object Model: Mapping your HTML -Text Nodes-Attribute Nodes Accessing the Nodes you Want: |      |          |
| 14 <sup>th</sup> | 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                                  |      |          |
| 15 <sup>th</sup> | 29th | Changing Styles with Class and Id-Font-Table Layout-Text Properties- Padding, Borders and Margins      | 15th | Revision |
|                  | 30th | Revision   |      |          |

### Lesson Plan

Name of the Faculty : Mr. Virender Gupta, Mrs. Madhu Bala ,  
 Mr. Dharamveer saini , Mrs .Swati Nautiyal

Discipline : Computer Engg.

Semester : 6<sup>th</sup>

Subject : Project

Lesson plan duration : 15 weeks (from 15 Jan, 2026 to 30 april, 2026)

| Week                 | Practical            |                         |
|----------------------|----------------------|-------------------------|
|                      | Practical Day        | Topic                   |
| 1 <sup>st</sup> Week | 1 <sup>st</sup> -G1  | Selection of Project    |
|                      | 2 <sup>nd</sup> - G2 | Selection of Project    |
| Week 2               | 1 <sup>st</sup> -G1  | Finalization of Project |
|                      | 2 <sup>nd</sup> - G2 | Finalization of Project |
| Week 3               | 1 <sup>st</sup> -G1  | Outline of Project      |
|                      | 2 <sup>nd</sup> - G2 | Outline of Project      |
| Week 4               | 1 <sup>st</sup> -G1  | Planning of Project     |
|                      | 2 <sup>nd</sup> - G2 | Planning of Project     |
| Week 5               | 1 <sup>st</sup> -G1  | Execution of Project    |
|                      | 2 <sup>nd</sup> - G2 | Execution of Project    |
| Week 6               | 1 <sup>st</sup> -G1  | Execution of Project    |
|                      | 2 <sup>nd</sup> - G2 | Execution of Project    |
| Week 7               | 1 <sup>st</sup> -G1  | Execution of Project    |
|                      | 2 <sup>nd</sup> - G2 | Execution of Project    |
| Week 8               | 1 <sup>st</sup> -G1  | Execution of Project    |
|                      | 2 <sup>nd</sup> - G2 | Execution of Project    |

|         |                      |                                      |
|---------|----------------------|--------------------------------------|
| Week 9  | 1 <sup>st</sup> -G1  | Execution of Project                 |
|         | 2 <sup>nd</sup> -G2  | Execution of Project                 |
| Week 10 | 1 <sup>st</sup> -G1  | Providing Solution of Problems       |
|         | 2 <sup>nd</sup> - G2 | Providing Solution of Problems       |
| Week 11 | 1 <sup>st</sup> -G1  | Production of Final Executed project |
|         | 2 <sup>nd</sup> - G2 | Production of Final Executed project |
| Week 12 | 1 <sup>st</sup> -G1  | Checking of Final Project            |
|         | 2 <sup>nd</sup> - G2 | Checking of Final Project            |
| Week 13 | 1 <sup>st</sup> -G1  | Report writing                       |
|         | 2 <sup>nd</sup> - G2 | Report writing                       |
| Week 14 | 1 <sup>st</sup> -G1  | Seminar                              |
|         | 2 <sup>nd</sup> - G2 | Seminar                              |
| Week 15 | 1 <sup>st</sup> -G1  | Viva-Voce                            |
|         | 2 <sup>nd</sup> - G2 | Viva-Voce                            |



### Lesson Plan

Name of the Faculty : Mrs. Payal Arora

Discipline : Computer Engg.

Semester : 4<sup>th</sup>

Subject : Project

Lesson plan duration : 15 weeks (from 15 Jan, 2026 to 30 april, 2026)

| Week                 | Practical            |                         |
|----------------------|----------------------|-------------------------|
|                      | Practical Day        | Topic                   |
| 1 <sup>st</sup> Week | 1 <sup>st</sup> -G1  | Selection of Project    |
|                      | 2 <sup>nd</sup> - G2 | Selection of Project    |
| Week 2               | 1 <sup>st</sup> -G1  | Finalization of Project |
|                      | 2 <sup>nd</sup> - G2 | Finalization of Project |
| Week 3               | 1 <sup>st</sup> -G1  | Outline of Project      |
|                      | 2 <sup>nd</sup> - G2 | Outline of Project      |
| Week 4               | 1 <sup>st</sup> -G1  | Planning of Project     |
|                      | 2 <sup>nd</sup> - G2 | Planning of Project     |
| Week 5               | 1 <sup>st</sup> -G1  | Execution of Project    |
|                      | 2 <sup>nd</sup> - G2 | Execution of Project    |
| Week 6               | 1 <sup>st</sup> -G1  | Execution of Project    |
|                      | 2 <sup>nd</sup> - G2 | Execution of Project    |
| Week 7               | 1 <sup>st</sup> -G1  | Execution of Project    |
|                      | 2 <sup>nd</sup> - G2 | Execution of Project    |
| Week 8               | 1 <sup>st</sup> -G1  | Execution of Project    |
|                      | 2 <sup>nd</sup> - G2 | Execution of Project    |

|         |                      |                                      |
|---------|----------------------|--------------------------------------|
| Week 9  | 1 <sup>st</sup> -G1  | Execution of Project                 |
|         | 2 <sup>nd</sup> -G2  | Execution of Project                 |
| Week 10 | 1 <sup>st</sup> -G1  | Providing Solution of Problems       |
|         | 2 <sup>nd</sup> - G2 | Providing Solution of Problems       |
| Week 11 | 1 <sup>st</sup> -G1  | Production of Final Executed project |
|         | 2 <sup>nd</sup> - G2 | Production of Final Executed project |
| Week 12 | 1 <sup>st</sup> -G1  | Checking of Final Project            |
|         | 2 <sup>nd</sup> - G2 | Checking of Final Project            |
| Week 13 | 1 <sup>st</sup> -G1  | Report writing                       |
|         | 2 <sup>nd</sup> - G2 | Report writing                       |
| Week 14 | 1 <sup>st</sup> -G1  | Seminar                              |
|         | 2 <sup>nd</sup> - G2 | Seminar                              |
| Week 15 | 1 <sup>st</sup> -G1  | Viva-Voce                            |
|         | 2 <sup>nd</sup> - G2 | Viva-Voce                            |