|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | |  | | **Lesson Plan** | |
| Name of Faculty | | | : | | DILBAG | |
| Discipline | | | : | | Computer Engineering | |
| Semester | | | : | | II | |
| Subject | | | : | | Desktop Publishing | |
| Lesson Plan Duration : | | | | | | 15 Weeks ( From January 2018 to April 2018 ) | | |
|  |  |  | |  | |  | |  |
|  |  |  | |  | | **Practical** | |  |
| **Week** | |  | |  | |  | |  |
| **Practical** | | **Practical Day** | | | | **Topics to be explained through** |
|  |  | **Day** | | **Demonstration** |
|  |  |  | |  | |
|  |  |  | |  | | | |  |
|  |  | 1 | | Using windows explorer and other windows | | | | Overview of Desktop Publishing |
|  |  | elements | |  | |
| 1st | |  | |  | | (DTP), Introduction of various keys |
|  | |  | |  | |
|  | | Creating and opening a document in page | | | |
|  |  | 2 | | in the keyboard and their functions |
|  |  | maker/publisher/scribus | | | |
|  |  |  | |  |
|  |  |  | |  | | | |  |
|  |  | 3 | | Formatting and editing a document | | | |  |
|  |  |  | |  | | Document needs, creating a |
|  |  |  | |  | |  | |
| 2nd | |  | |  | |  | | document, editing and formatting a |
|  | | Formatting and editing a document | | | |
|  |  | 4 | | document, saving and printing a |
|  |  |  | |  | |
|  |  |  | |  | | document, inserting text and |
|  |  |  | |  | |  | |
|  |  | 5 | | Saving and printing a given document | | | | graphics, inserting columns, fonts |
|  |  | and styles, integrating images and |
|  |  |  | |  | |  | |
| 3rd | |  | |  | |  | | graphics from a drawing package in |
|  | | Insertion of text and graphics in a given | | | |
|  |  | 6 | | the document, making |
|  |  | document from external source | | | |
|  |  | transparencies, elements, frame |
|  |  |  | |
|  |  |  | |  | |  | |
|  |  | 7 | | Insertion of text and graphics in a given | | | | option, arrange text, image control, |
|  |  | expert tracking, indent/tabs, styles, |
|  |  | document from external source | | | |
|  |  |  | |
| 4th | |  | | type styles, layout, tool bar (page |
|  | |  | |  | |
|  | | Using columns utility, to give the document | | | |
|  |  | 8 | | setting) |
|  |  | column look | | | |
|  |  |  |
|  |  |  | |  |
|  |  |  | |  | | | |  |
|  |  | 9 | | Revision/TEST | | | |  |
| 5th | | 10 | | Using various fonts and styles to make a | | | | Introduction, exploring Corel Draw |
|  |  | document more beautiful | | | | screen, using dialog boxes, using roll |
|  |  |  | |
|  |  |  | |  | |  | | ups, create/open file, save file, |
|  |  | 11 | | Using various fonts and styles to make a | | | |
|  |  | import/export files, print file, Ø Use |
| 6th | | document more beautiful | | | |
|  | |
|  |  |  | |  | |  | | of ribbon bar, use of tool box, select |
|  |  | 12 | | Use of page maker to make transparencies | | | |
|  |  | object, shaping objects using zoom |
|  |  |  | |  | |  | |
|  |  |  | | Formatting a given file by using undo/redo, | | | |
|  |  |  | | tool, filling objects, outline objects, |
|  |  | 13 | | repeat, cut, copy, paste, delete, duplicate | | | | use of line tool |
| 7th | |  | | and clone utilities | | | |  |
|  | |  | |  | |  |
|  | | Inserting objects in the drawing, aligning, | | | |  |
|  |  |  | |  |
|  |  | 14 | | ordering, grouping and ungrouping of those | | | |  |
|  |  |  | | objects | |  | |  |
|  |  |  | |  | |  | | Arranging objects: align, order, |
|  |  |  | | Inserting objects in the drawing, aligning, | | | |
|  |  |  | | group, ungroup, combine, break |
|  |  | 15 | | ordering, grouping and ungrouping of those | | | |
|  |  | apart, weld, intersection, trim, |
|  |  |  | | objects | |  | |
| 8 | th |  | |  | | separate |
|  | |  | |  | |
|  |  | | Use of combine, break apart, weld, | | | |  |
|  |  |  | |  |
|  |  | 16 | | intersection, trim and separate tools in a | | | |  |
|  |  |  | | given drawing | | | |  |
|  |  |  | |  | |  | |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Use of combine, break apart, weld, |  |
| 9th | 17 | intersection, trim and separate tools in a |  |
|  | given drawing | Use of ribbon bar, use of tool box, |
|  |  |
|  |  |  |
|  | 18 | Revision/TEST | select object, shaping objects using |
|  | 19 | Use of mode edit tools i.e. to line, to curve, | zoom tool, filling objects, outline |
|  | objects, use of line tool, Setting up |
|  | to stretch, and rotate |
| 10th |  |
|  | new drawing, setting multi-page |
|  |  |
| 20 | Use of mode edit tools i.e. to line, to curve, |
|  | document, undo/redo mistakes, |
|  | to stretch, and rotate |
|  |  | repeat, cut, copy, paste, delete, |
|  |  |  |
|  |  | Creating special effects i.e. transform roll- |
|  |  | duplicate, clone, Insert object, paste |
|  | 21 | up, envelop roll up, add perspective, | special, copy attributes from select |
|  | extrude roll up, contour roll up, power line, | all, drawing objects, selecting |
|  |  |
| 11th |  | power clip, clear effects | objects, Page setup, insert/delete |
|  |  | page, use of layers, roll up, grid and |
|  | Creating special effects i.e. transform roll- |
|  |  |
|  |  | scale set up, guideline set up |
|  |  | up, envelop roll up, add perspective, |
|  | 22 |  |
|  | extrude roll up, contour roll up, power line, |  |
|  |  |  |
|  |  | power clip, clear effects |  |
|  |  |  |  |
|  |  | To insert character and paragraph text in a |  |
|  | 23 | drawing and frame, setting of tabs, indents, |  |
| 12th |  | bullets and spacing in paragraph text |  |
|  |  |  | Mode edit: to line, to curve, stretch, |
|  |  | Filling of text to a given path, aligning it to |
|  | 24 | rotate, align, convert to curves, |
|  | base line, straighten text and edit text |
|  | Creating special effects: Transform |
|  |  |
|  |  |  |
|  | 25 | Filling of text to a given path, aligning it to | roll up, clear transformation, add |
|  | base line, straighten text and edit text | perspective, envelope roll up, |
| 13th |  |
|  |  | Creating special effects: blend roll- |
|  | Using tools such as spell checker, and |
|  |  |
|  | 26 | up, extrude roll up, counter roll up, |
|  | thesaurus |
|  |  | power line, power-clip clear effects, |
|  |  |  |
|  |  | Using find and replace text utility and type |
|  | 27 | Working with text: Character, |
|  | assist | paragraph text, frame, setting of |
| 14th |  |
| 28 | Adding various symbols to a drawing and | tabs, indents, bullets, spacing in |
|  |
|  | paragraph text |
|  | creating different patterns |
|  |  |
|  |  |  |
|  | 29 | Adding various symbols to a drawing and |  |
| 15th | creating different patterns |  |
|  |  |
|  | 30 | Revision/TEST |  |

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|  |  |  |  |  | **Lesson Plan** |  |
| Name of Faculty |  | : | | DILBAG | | |
| Discipline |  | : |  | Computer Engg. | | |
| Semester |  | : |  | 2nd | | |
| Subject |  | : |  | Computer Workshop | | |
| Lesson Plan Duration | | : |  | 15 Weeks | | |
|  |  |  |  |  |  | |
| Week |  |  |  |  | Practical | |
|  | Practical |  |  |  | Topic | |
|  | Day |  |  |  |  |  |
| 1 | 1 |  |  | Familiarization with various components and parts | | |
|  |  |  |  | of personal computer | | |
|  | 2 |  |  | Introduction to Various types of Printers | | |
|  |  |  |  |  | | |
| 2 | 3 |  |  | Installation of the Printers | | |
|  |  |  |  |  | | |
|  | 4 |  |  | Assembly and Dissembling of PCs | | |
|  |  |  |  |  | | |
| 3 | 5 |  |  | Trouble Shooting Of SMPS | | |
|  |  |  |  |  | | |
|  | 6 |  |  | Revision and Problem Discussion | | |
|  |  |  |  |  | | |
| 4 | 7 |  |  | Setting Up of basic infrastructure for computers | | |
|  |  |  |  | (including power layout, air conditioning, earthing | | |
|  |  |  |  | etc. | | |
|  | 8 |  |  | Practical & Continues | | |
|  |  |  |  |  | | |
| 5 | 9 |  |  | Expert Lecture From Industry for Repair and | | |
|  |  |  |  | Maintenance | | |
|  | 10 |  |  | Introduction to the Software and Operating System | | |
|  |  |  |  |  | | |
| 6 | 11 |  |  | Installation of Windows Operating System | | |
|  |  |  |  |  | | |
|  | 12 |  |  | Revision Regarding Installation | | |
|  |  |  |  |  | | |
| 7 | 13 |  |  | Installation of Windows Linux System | | |
|  |  |  |  |  | | |
|  | 14 |  |  | Revision Regarding Installation | | |
|  |  |  |  |  | | |
| 8 | 15 |  |  | Setting Up Multiboot System and its features | | |
|  |  |  |  |  |  |  |

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| --- | --- | --- |
|  | 16 | Creating window system image |
|  |  |  |
| 9 | 17 | Installation and configuration of device drivers |
|  |  |  |
|  | 18 | Disk Management |
|  |  |  |
| 10 | 19 | Revision and Practice of Previous Practical’s, |
|  |  | Problem taking |
|  | 20 | Introduction to The Application Softwares, |
|  |  | Installation of MS Office |
| 11 | 21 | Practical Work on MS Office |
|  |  |  |
|  | 22 | Installation of Adobe Photoshop |
|  |  |  |
| 12 | 23 | Installation of Corel Draw/ Flash |
|  |  |  |
|  | 24 | Installation of Oracle Database |
|  |  |  |
| 13 | 25 | Revision |
|  |  |  |
|  | 26 | Introduction to Virus/ Spyware/ Worms/ Trojan |
|  |  | Horse their detection, prevention and cure. |
|  |  |  |
| 14 | 27 | Installation and Uninstallation Of Antivirus |
|  |  |  |
|  | 28 | Revision |
|  |  |  |
| 15 | 29 | Expert Lecture On Viruses and Its Damages |
|  |  |  |
|  | 30 | Industry Visit |
|  |  |  |

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|  | | |  | **Lesson Plan** | |
| Name of Faculty | | | : | DIVYA SAINI | |
| Discipline | | | : | Computer Engg. | |
| Semester | | | : | 4th | |
| Subject | | | : | Computer Organisation | |
| Lesson Plan Duration : | | | | | 15 Weeks ( From January 2018 to April 2018 ) | |
|  |  |  | | |  | |
| Week |  |  | | | **Theory** | |
|  | Lecture |  | | | Topic | |
|  | Day | (including assignment/test ) | | | | |
| 1st | **1** | Introduction to Whole Subject and about Books recommended | | | | |
|  | **2** | CPU organisation : general register organisation | | | | |
|  | **3** | CPU organisation : stack organisation | | | | |
|  | **4** | Instruction Formats (three address, two address) | | | | |
| 2nd | **1** | Instruction Formats ( one address, zero address) | | | | |
|  | **2** | RISC instruction | | | | |
|  | **3** | Addressing modes: Immediate, register | | | | |
|  | **4** | Addressing modes: direct, in direct, relative, indexed. | | | | |
| 3rd | **1** | **Assignment** | | |  | |
|  | **2** | CPU Design : Microprogrammed Control | | | | |
|  | **3** | CPU Design : Hard wired Control | | | | |
|  | **4** | CPU Design : Microprogrammed vs hard wired control | | | | |
| 4th | **1** | Reduced instruction set computers (RISC) | | | | |
|  | **2** | RISC characteristics | | | | |
|  | **3** | Complex instruction set computers (CISC) and its characteristics | | | | |
|  | **4** | Comparison of RISC and CISC | | | | |
| 5th | **1** | **Sessional Test** | | | | |
|  | **2** | Memory Organisation : Introduction | | | | |
|  | **3** | Memory Hierarchy | | | | |
|  | **4** | RAM chips | | |  | |
| 6th | **1** | ROM chips | | |  | |
|  | **2** | Memory address map | | | | |
|  | **3** | Memory connections to CPU | | | | |
|  | **4** | Auxillary memory : Magnetic disks | | | | |
| 7th | **1** | Auxillary memory : Magnetic Tape | | | | |
|  | **2** | Associative memory | | | | |
|  | **3** | Cache memory | | | | |
|  | **4** | Virtual memory | | | | |
| 8th | **1** | Concept of Paging | | | | |
|  | **2** | Concept of Segmentation | | | | |
|  | **3** | Memory management hardware | | | | |
|  | **4** | **Assignment** | | |  | |
| 9th | **1** | I/O organization: Introduction | | | | |
|  | **2** | Basis Input output system(BIOS): Function of BIOS | | | | |
|  | **3** | Testing and initialization | | | | |
|  | **4** | Configuring the system | | | | |
| 10th | **1** | **Sessional Test** | | | | |
|  | **2** | Modes of Data Transfer : Introduction | | | | |
|  | **3** | Programmed I/O | | | | |
|  | **4** | Synchronous Data Transfer | | | | |
| 11th | **1** | Asynchronous Data Transfer | | | | |
|  | **2** | Interrupt initiated Data Transfer | | | | |
|  | **3** | DMA data transfer | | | | |
|  | **4** | DMA Controller | | | | |
| 12th | **1** | **Assignment** | | |  | |



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| --- | --- | --- |
|  | **2** | Multi processor systems : Introduction |
|  | **3** | Multi processor systems : Architecture |
|  | **4** | Parallel processing : Introduction |
| 13th | **1** | Forms of parallel processing |
|  | **2** | Parallel processing and pipelines |
|  | **3** | Basic characteristics of multiprocessor |
|  | **4** | General purpose multiprocessors |
| 14th | **1** | Interconnection networks : Introduction |
|  | **2** | Time shared common bus |
|  | **3** | Multi port memory, |
|  | **4** | Cross bar switch |
| 15th | **1** | Multi stage switching |
|  | **2** | Networks and hyper cube structures |
|  | **3** | **Assignment** |
|  | **4** | **Sessional Test** |



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|  |  |  |  | **Lesson Plan** |  |  |
| Name of Faculty | | | : | PREETY CHHABRA |  |  |
| Discipline | | | : | Computer Engg |  |  |
| Semester | | | : | 4TH |  |  |
| Subject | |  | : | Data Structure Using C |  |  |
| Lesson Plan Duration : | | | | 15 Weeks ( From January 2018 to April 2018 ) | | |
|  |  |  |  |  |  |  |
| Week |  |  |  | **Theory** |  | **Practical** |
|  |  | Lecture |  | Topic | Pr | Topic |
|  |  | Day | (including assignment/test ) | | Day |  |
| 1st |  | 1st | Problem solving concept, top down and bottom up | | 1 | The factorial of a |
|  |  | design, structured programming | |  | given number using |
|  |  |  |  |
|  |  |  | Concept of data types, variables and constants | |  |
|  |  |  |  | recursion |
|  |  | 2nd |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  | |  |  |
|  |  |  | Concept of pointer variables and constants, | | 2 | The factorial of a |
|  |  |  | Introduction to data Structure | |  | given number using |
|  |  | 3rd |  |  |  |
|  |  |  |  |  | recursion |
|  |  |  |  |  |  |
|  |  |  |  | |  |  |
| 2nd |  | 4th | Array, Linked List, Stack, Queue, Trees, graphs | | 3 | Inserting elements |
|  |  |  |  |  | in array |
|  |  |  |  |  |  |
|  |  | 5th | Concept of Arrays, | | 4 | Inserting elements |
|  |  | 6th | Single dimensional array | |  | in array |
|  |  |  |  |  |
| 3rd |  | 7th | Two dimensional array | | 5 | deleting elements |
|  |  | 8th | Representation of Two dimensional Array (Base | |  | in array |
|  |  | Address, LB, UB) | |  |
|  |  |  |  |  |
|  |  | 9th | searching, |  | 6 | deleting elements |
|  |  |  |  |  | in array |
|  |  |  |  |  |  |
| 4th |  | 10th | traversing, , |  | 7 | The addition of two |
|  |  | 11th | Inserting |  |  | matrices using |
|  |  |  |  |  |
|  |  |  |  |  | functions |
|  |  |  |  |  |  |
|  |  |  | deleting |  | 8 | The addition of two |
|  |  | 12th |  |  |  | matrices using |
|  |  |  |  |  |  | functions |
| 5th |  | 13th | Introduction to linked list and double linked list | | 9 | Insertion of |
|  |  |  | Representation of linked lists in Memory, Comparison | |  | elements in linked |
|  |  | 14th | between Linked List and Array | |  | list |
|  |  |  |  | |  |  |
|  |  |  | Traversing a linked list | | 10 | Deletion of |
|  |  | 15th |  |  |  | elements in linked |
|  |  |  |  |  | list |
|  |  |  |  |  |  |
|  |  |  |  | |  |  |
| 6th |  |  | Searching linked list | | 11 | Insertion of |
|  |  | 16th |  |  |  | elements in doubly |
|  |  |  |  |  |  | linked list |
|  |  | 17th | Insertion and deletion into linked list (At first Node, | | 12 | Deletion of |
|  |  | Specified Position, Last ) | |  | elements in doubly |
|  |  |  |  |
|  |  | 18th | Application of linked lists | |  |
|  |  |  | linked list |
|  |  |  |  |  |
| 7th |  | 19th | Doubly linked lists | | 13 | Viva-Voce |
|  |  | 20th | Traversing a doubly linked lists | |  |  |
|  |  | 21st | Insertion and deletion into doubly linked lists | | 14 | Viva-Voce |
| 8th |  | 22nd | Introduction to stacks, Representation of stacks with | | 15 | Push and pop |
|  |  | array and Linked List | |  | operation in stack |
|  |  |  |  |  |  |
|  |  | 23rd | Implementation of stacks | | 16 | Push and pop |
|  |  | 24th | Application of stacks: Polish Notations | |  | operation in stack |
|  |  |  |  |  |



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| 9th | 25th | Converting Infix to Post Fix Notation | 17 | Conversion from in- | |
|  | 26th | Evaluation of Post Fix Notation, Tower of Hanoi |  | fix notation |  |
|  |  |  |  |
|  | 27th | Recursion: Concept and Comparison between | 18 | Conversion from in- | |
|  |  | recursion and Iteration |  | fix notation |  |
|  |  |  |  |  |
| 10th | 28th | Introduction to queues, Implementation of queues | 19 | Insertion and | |
|  |  | using array algorithm |  | Deletion of |  |
|  | 29th | Implementation of queues using Linked List with |  |  |
|  |  | elements in queue | |
|  |  | algorithm |  |
|  |  |  |  | using pointers | |
|  | 30th | Circular Queues | 20 | Insertion and | |
|  |  |  |  | Deletion of |  |
|  |  |  |  | elements in queue | |
|  |  |  |  | using pointers | |
| 11th | 31st | De-queues | 21 | Insertion of |  |
|  | 32nd | Concept of Binary Trees, Concept of representation of |  | elements in circular | |
|  |  | Binary Tree |  | queue using | |
|  |  |  |  |
|  |  |  |  | pointer |  |
|  | 33rd | Concept of balanced Binary Tree | 22 | Deletion of |  |
|  |  |  |  | elements in circular | |
|  |  |  |  | queue using | |
|  |  |  |  | pointers |  |
| 12th | 34th | Traversing Binary Trees (Pre order, Post order and In | 23 | Traversing of | tree |
|  |  | order) |  |  |  |
|  | 35th | Searching, |  |  |  |
|  | 36th | inserting in binary search trees | 24 | Traversing of | tree |
| 13th | 37th | deleting in binary search trees | 25 | The linear search | |
|  | 38th | Linear Search algorithm |  | procedures to | |
|  |  |  |  | search an element | |
|  |  |  |  | in given list |  |
|  | 39th | Binary Search algorithm | 26 | The binary search | |
|  |  |  |  | procedures to | |
|  |  |  |  | search an element | |
|  |  |  |  | in a given list | |
| 14th | 40th | Concept of sorting Bubble Sort | 27 | The bubble sort | |
|  | 41st | Insertion Sort |  | techniques |  |
|  | 42nd | Selection Sort | 28 | The selection sort | |
|  |  |  |  | techniques |  |
| 15th | 43rd | Merge Sort | 29 | Viva-Voce |  |
|  | 44th | Radix Sort |  |  |  |
|  | 45th | Heap Sort | 30 | Viva-Voce |  |



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|  |  |  |  | **Lesson Plan** |  |  |
| Name of Faculty | | | : | MANJEET KAUR |  |  |
| Discipline | | | : | Computer Engg |  |  |
| Semester | | | : | IV |  |  |
| Subject | |  | : | DBMS |  |  |
| Lesson Plan Duration : | | | | 15 Weeks ( From January 2018 to April 2018 ) | | |
|  |  |  |  |  |  |  |
| Week |  |  |  | **Theory** |  | **Practical** |
|  |  | Lecture |  | Topic | Practical | Topic |
|  |  | Day | (including assignment/test ) | | Day |  |
| 1st |  | 1 | Introduction to Database and its purpose, | |  | Overview, |
|  |  |  | Introduction to Database system | |  | Features and |
|  |  | 2 | Why Database, History of Database | |  | functionality, |
|  |  | 1 | Application |
|  |  |  | System, Characteristics of the database | |
|  |  |  |  | development in |
|  |  |  | approach | |  |
|  |  |  |  | MS-Access |
|  |  | 3 | Advantages and disadvantages of | |  |
|  |  |  |  |
|  |  |  | database systems | |  |  |
| 2nd |  | 4 | Introduction to Conventional File System, | |  | Overview, |
|  |  |  | Concept of files ,record, data, information | |  | Features and |
|  |  |  | retrieval | |  | functionality, |
|  |  |  | 2 | Application |
|  |  | 5 | Comparison between Conventional | |
|  |  |  | development in |
|  |  |  | System and DataBase System | |  |
|  |  |  |  | MS-Access |
|  |  | 6 | Actors on the scene, Database | |  |
|  |  |  |  |
|  |  |  | Administrators, Database Designers, End | |  |  |
|  |  |  | Users, System Analysts and Application | |  |  |
|  |  |  | Programmers | |  |  |
| 3rd |  | 7 | Workers behind the scene (DBMS | |  | Exercises on |
|  |  |  | system designers and implementers, | |  | different forms |
|  |  |  | tool developers, operator and | | 3 | of select |
|  |  |  |  | statement, |
|  |  |  | maintenance personnel) | |  |
|  |  |  |  | altering and |
|  |  | 8 | Data | models: Physical Model, Object |  |
|  |  |  | droping of tables |
|  |  |  | based Model, Record based Model | |  |
|  |  |  |  |  |
|  |  | 9 | Network Model, Heirachical Model) | |  |  |
| 4th |  | 10 | sub schemas instances, data base state. | |  | Exercises on |
|  |  |  | Case Study of models and schemas | |  | different forms |
|  |  |  | (examples student information System) | | 4 | of altering and |
|  |  |  |  | dropping of |
|  |  | 11 | Three Level of Architecure | |  |
|  |  |  | tables |
|  |  | 12 | Data base Administrator and | |  |
|  |  |  |  |
|  |  |  | Administration, Database Management | |  |  |
|  |  |  | System Advantage and Disadvantage, | |  |  |
|  |  |  | Classification of DBMS, DBMS Interfaces | |  |  |
| 5th |  | 13 | Concept of centralized and Client | |  | Exercises on |
|  |  |  | /Server Architecture for DBMS: Single | | 5 | creation of tables |
|  |  |  | Tier, Two Tier and Three Tier | |  |  |
|  |  | 14 | Data Independence | |  |  |
|  |  | 15 | Database Languages and Interfaces | |  |  |
| 6th |  | 16 | Classification of Database | |  | Exercises on |
|  |  |  | Management Systems: Centralized, | | 6 | creation of tables |
|  |  |  | Distributed, | |  |  |
|  |  | 17 | parallel and Object based | |  |  |
|  |  |  |  |  |  |  |
|  |  | 18 | Test |  |  |  |



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 7th | 19 | File based or primitive models | | 7 | Viva-Voce |
|  | 20 | traditional data models | |  |  |
|  | 21 | semantic data models. | |  |  |
| 8th | 22 | Entities and Attributes | | 8 | Exercises on |
|  | 23 | Entity types and Entity sets | |  | insertion of data |
|  | 24 | Key attribute and domain of attributes | |  | into tables |
|  |  |  |
| 9th | 25 | Relationship among entities | | 9 | Exercises on |
|  | 26 | Database design with E/R model | |  | insertion of data |
|  | 27 | Database design with E/R model | |  | into tables |
|  |  |  |
| 10th | 28 | ER Design Issues | | 10 | Exercises on |
|  | 29 | Mapping Constraints | |  | deletion of data |
|  | 30 | Domain, | Attributes |  | using different |
|  |  | conditions |
|  |  |  |  |  |
| 11th | 31 | Tuples, | Cardinality | 11 | Exercises on |
|  | 32 | Primary, Secondary | |  | creation of tables |
|  | 33 | Foreign key, | |  | using Primary |
|  |  | Key |
|  |  |  |  |  |
| 12th | 34 | Alternative Keys | | 12 | Exercises on Join |
|  | 35 | Relations |  |  | of tables |
|  | 36 | Test |  |  |  |
| 13th | 37 | Introduction to SQL | | 13 | Exercises on |
|  | 38 | Data definition language : Create, Alter, | |  | UPDATE |
|  |  | Drop commands | |  | statement |
|  | 39 | Data Manipulation Language (DML) Select | |  |  |
|  |  | command with where clause using | |  |  |
|  |  | conditional expressions | |  |  |
| 14th | 40 | Boolean operators, group by clause | | 14 | Exercise on |
|  | 41 | like operator | |  | GROUP BY clause |
|  | 42 | Insert |  |  |  |
| 15th | 43 | Update and Delete commands | | 15 | Viva-Voce |
|  | 44 | Revision |  |  |  |
|  | 45 | Test |  |  |  |



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|  |  |  |  |  | **Lesson Plan** | |  |  |  |  |  |  |  |
| Name of Faculty | | | | : | HIMANI GUPTA |  |  |  |  |  |  |  |  |
| Discipline | | | | : | Computer Engg. |  |  |  |  |  |  |  |  |
| Semester | | | | : | 4th |  |  |  |  |  |  |  |  |
| Subject | |  |  | : | MPD (Microprocessor & Peripheral Devices) | | | | | |  |  |  |
| Lesson Plan Duration | | | | | 15 Weeks ( From January 2018 to April 2018 ) | | | | | |  |  |  |
|  |  |  |  |  |  |  |  | | | |  |  |  |
| Week |  |  |  |  | **Theory** |  | **Practical** | | | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Lecture |  |  | Topic | Practical | Topic |  |  |  |  |  |  |
|  |  | Day |  | (including assignment/test ) | | Day |  |  |  |  |  |  |  |
| 1st |  | 1 |  | Introduction to Micro- | | 1 | Familiarization of different | | | | | | |
|  |  |  | Processor, historical back | | keys |  |  | of |  | 8085 | |
|  |  |  |  |  |  |  |  |
|  |  |  |  | ground of MP &itsevoluation | |  | microprocessor | | | | kit | and | its |
|  |  |  |  |  |  |  | memory map (Group: A) | | | | | | |
|  |  | 2 |  | Org. of Micro Computer & its | |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | various Blocks | |  |  |  |  |  |  |  |  |
|  |  |  |  |  | |  |  | | | | | | |
|  |  | 3 |  | Microprocessor and function | | 2 | Familiarization of different | | | | | | |
|  |  |  |  | of its various blocks | |  | keys |  |  | of |  | 8085 | |
|  |  |  |  |  |  |  | microprocessor | | | | kit | and | its |
|  |  |  |  |  |  |  | memory map (Group: B) | | | | | | |
|  |  | 4 |  | Various application of MP & | |  |  |  |  |  |  |  |  |
|  |  |  |  | its impact on society | |  |  |  |  |  |  |  |  |
|  |  |  |  |  | |  |  |  |  |  | |  | |
| 2nd |  | 5 |  | Revision of unit 1 | |  | Steps |  | to | enter, | | modify | |
|  |  |  |  |  |  | 3 | data/program | | | | and | | to |
|  |  | 6 |  | Introduction to system bus, bus | |
|  |  |  | execute | | a | programme | | | on |
|  |  |  |  | org. of 8085 | |  |
|  |  |  |  |  | 8085 kit (Group:A) | | | | |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | |  |  |  |  |  | |  | |
|  |  | 7 |  | Block diagram of 8085 & its | | 4 | Steps |  | to | enter, | | modify | |
|  |  |  |  | blocks |  |  | data/program | | | | and | | to |
|  |  |  |  |  |  |  | execute | | a | programme | | | on |
|  |  | 8 |  | Functions of various blocks of | |  |
|  |  |  |  | 8085 kit (Group:B) | | | | |  |  |
|  |  |  |  | 8085 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | |  |  | |  | | | |  |
| 3rd |  | 9 |  | Pin Layout of 8085 | | 5 | Writing | | and execution | | | | of |
|  |  |  |  |  |  |  | ALP | for | | addition | | | and |
|  |  |  |  |  |  |  | subtraction of two 8 bit | | | | | | |
|  |  |  |  |  |  |  | numbers (group:A) | | | | |  |  |
|  |  | 10 |  | Details of various pins and | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | related signals of 8085 | |  |  |  |  |  |  |  |  |
|  |  |  |  |  | |  |  | |  | | | |  |
|  |  | 11 |  | Various multiplexed pins of | | 6 | Writing | | and execution | | | | of |
|  |  |  |  | 8085 |  |  | ALP | for | | addition | | | and |
|  |  |  |  |  |  |  | subtraction of two 8 bit | | | | | | |
|  |  |  |  |  |  |  | numbers (group:B) | | | | |  |  |
|  |  |  |  |  | |  |  |  |  |  |  |  |  |
|  |  | 12 |  | Demultiplexing of address/data | |  |  |  |  |  |  |  |  |
|  |  |  |  | bus |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| 4th | 13 | Generation of RD/WR control | 7 | Writing and execution | | | of |
|  |  | signals |  | ALP | for | addition | and |
|  |  |  |  | subtraction | | of two 8 | bit |
|  | 14 | Steps to execute a stored |  |
|  |  | numbers (group:A) | | |  |
|  |  | programme |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  | | |  |
|  | 15 | Revision of Unit 2 (problem | 8 | Writing and execution | | | of |
|  |  | discussion) |  | ALP | for | addition | and |
|  |  |  |  | subtraction | | of two 8 | bit |
|  | 16 | Class test - Unit 1 & 2 |  |
|  |  | numbers (group:B) | | |  |
|  |  |  |  |  |
|  |  |  |  |  | | | |
| 5th | 17 | Various level of programming: | 9 | Writing and execution of | | | |
|  |  | M/C level programming, |  | ALP for multiplication and | | | |
|  |  | assembly level prog, high level |  | division of two 8 bit | | |  |
|  |  |  | numbers (Group :A) | | |  |
|  |  | programming |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | 18 | Introduction to instruction, |  |  |  |  |  |
|  |  | instruction format (type of |  |  |  |  |  |
|  |  | instruction): 1- byte instuction, |  |  |  |  |  |
|  |  | 2- byte inst, 3-byte instruction, |  |  |  |  |  |
|  |  | Introduction to Instruction |  |  |  |  |  |
|  |  | cycle |  |  |  |  |  |
|  |  |  |  |  | | | |
|  | 19 | Instruction cycle, M/C cycle, | 10 | Writing and execution of | | | |
|  |  | T-state |  | ALP for multiplication and | | | |
|  |  |  |  | division of two 8 bit | | |  |
|  | 20 | Fetch & execution cycle: |  | numbers (Group : B) | | |  |
|  |  | various steps to fetch & |  |  |  |  |  |
|  |  | execute an instruction |  |  |  |  |  |
|  |  |  |  |  | | | |
| 6th | 21 | Timing diagram for opcode | 11 | Writing and execution of | | | |
|  |  | fetch operation, memory read |  | ALP for arranging 10 | | |  |
|  |  | operation |  | numbers in | |  |  |
|  |  |  | ascending/descending | | |  |
|  |  |  |  |  |
|  |  |  |  | order (Group : A) | | |  |
|  | 22 | Timing diagram for memory |  |  |  |  |  |
|  |  | write operation, |  |  |  |  |  |
|  |  |  |  |  | | | |
|  | 23 | Timing diagram for I/O Read, | 12 | Writing and execution of | | | |
|  |  | I/O Write operation |  | ALP for arranging 10 | | |  |
|  |  |  |  | numbers in | |  |  |
|  | 24 | Memory read & memory write |  | ascending/descending | | |  |
|  |  | operation of processor |  | order (Group : B) | | |  |
|  |  |  |  |  | | | |
| 7th | 25 | Introduction to machine & | 13 | ALP for 0 to 9 BCD | | | |
|  |  | assembly language |  | counters (up/down counter | | | |
|  |  |  |  | according to choice stored | | | |
|  |  |  |  | in memory) (Group : A) | | | |
|  | 26 | M/C & assembly languages, |  |
|  |  |  |  |  |  |
|  |  | M/C code & mnemonics codes |  |  |  |  |  |
|  |  |  |  |  |  |  |  |



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|  | 27 | Instruction format: opcode, | 14 | ALP for 0 to 9 BCD |
|  |  | operend, 1- byte inst, 2- byte |  | counters (up/down counter |
|  |  | inst, 3-byte instruction, |  | according to choice stored |
|  |  | Introduction to Addressing |  | in memory) (Group : B) |
|  |  | Modes |  |  |
|  |  |  |  |  |
|  | 28 | Addressing modes : various |  |  |
|  |  | addressing modes |  |  |
|  |  |  |  |  |
| 8th | 29 | Addressing modes: | 15 | ALP for 0 to 9 BCD |
|  |  | identification of instruction |  | counters (up/down counter |
|  |  | ( to which addressing mode |  | according to choice stored |
|  |  | they belong) |  | in memory) (Group : A) |
|  |  |  |  |  |
|  | 30 | Introduction to instruction set |  |  |
|  |  | & introduction to various |  |  |
|  |  | groups |  |  |
|  |  |  |  |  |
|  | 31 | Data transfer group of Instr, | 16 | ALP for 0 to 9 BCD |
|  |  |  |  | counters (up/down counter |
|  | 32 | Data transfer group of instr., |  |
|  |  | according to choice stored |
|  |  |  |  |
|  |  |  |  | in memory) (Group : B) |
|  |  |  |  |  |
| 9th | 33 | Arithmetic group of inst. | 17 | Interfacing exercise on |
|  |  |  |  | 8255 like LED display |
|  | 34 | Logic group, stack group of |  | control (Group: A) |
|  |  | instr. |  |  |
|  |  |  |  |  |
|  | 35 | I/O & memory control group | 18 | Interfacing exercise on |
|  |  | of instruction. |  | 8255 like LED display |
|  |  |  |  | control (Group: B) |
|  | 36 | Programming exercise of |  |  |
|  |  | Assembly Language |  |  |
|  |  |  |  |  |
| 10th | 37 | Revision (unit 3 & 4) | 19 | Interfacing exercise on |
|  |  |  |  | 8255 like LED display |
|  | 38 | Class test - unit 3 & 4 |  | control (Group: A) |
|  |  |  |  |  |
|  | 39 | Introduction to storing | 20 | Interfacing exercise on |
|  |  | elements, Memories |  | 8255 like LED display |
|  |  |  |  | control (Group: B) |
|  | 40 | Concept of various |  |  |
|  |  | signals/pins of memory |  |  |
|  |  | devices |  |  |
|  |  |  |  |  |
| 11th | 41 | Basic concept of memory | 21 | Interfacing exercise on |
|  |  | mapping & its techniques |  | 8253 programmable |
|  |  |  |  | interval timer (Group : A) |
|  |  |  |  |  |
|  | 42 | Partitioning of total memory |  |  |
|  |  | space, Introduction to Address |  |  |
|  |  |  |  |  |

|  |  |  |  |  |  |  |
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|  |  | Decoding |  |  |  |  |
|  |  |  |  |  | |  |
|  | 43 | Address decoding, need of | 22 | Interfacing exercise on | |  |
|  |  | decoder |  | 8253 programmable | |  |
|  |  |  |  | interval timer (Group : B) | | |
|  | 44 | Address decoding by using |  |  |  |  |
|  |  | NAND gate decoder & 2 : 4 |  |  |  |  |
|  |  | line decoder |  |  |  |  |
|  |  |  |  |  |  |  |
| 12th | 45 | Address decoding by using 3 : | 23 | Interfacing | exercise | on |
|  |  | 8 line decoder & PROM |  | 8279 | programmable | |
|  |  | decoder |  | KB/display interface like to | | |
|  |  |  |  | display the hexcode of key | | |
|  |  |  |  | pressed on display (Grp:A) | | |
|  | 46 | Peripheral mapped I/O & |  |
|  |  |  |  |  |
|  |  | Memory mapped I/O Scheme |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 47 | Difference between Peripheral | 24 | Interfacing | exercise | on |
|  |  | mapped I/O & Memory |  | 8279 | programmable | |
|  |  | mapped I/O Scheme, |  | KB/display interface like to | | |
|  |  | Interfacing of memory mapped |  | display the hexcode of key | | |
|  |  | I/O devices |  | pressed on display (Grp: B) | | |
|  |  |  |  |  |  |  |
|  | 48 | Introduction to Interrupts: |  |  |  |  |
|  |  | Maskable& non- maskable |  |  |  |  |
|  |  | interrupt, Edge triggered & |  |  |  |  |
|  |  | Level triggered interrupts, |  |  |  |  |
|  |  |  |  |  |  |  |
| 13th | 49 | Various H/W interrupt, S/W | 25 | Interfacing | exercise | on |
|  |  | Interrupt, Restart interrupt & |  | 8279 | programmable | |
|  |  | its use |  | KB/display interface like to | | |
|  |  |  |  | display the hexcode of key | | |
|  |  |  |  | pressed on display (Grp:A) | | |
|  | 50 | Servicing interrupts, extending |  |
|  |  |  |  |  |
|  |  | interrupt services |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 51 | Programmed I/O operation, | 26 | Interfacing | exercise | on |
|  |  | overview of data transfer |  | 8279 | programmable | |
|  |  | schemes |  | KB/display interface like to | | |
|  |  |  |  | display the hexcode of key | | |
|  | 52 | Sync. Data transfer , asyn data |  |
|  |  | pressed on display (Grp: B) | | |
|  |  | transfer (hand-shaking |  |
|  |  |  |  |  |  |
|  |  | schemes) |  |  |  |  |
|  |  |  |  |  | | |
| 14th | 53 | Interrupt driven data transfer | 27 | Use of 8085 emulator for | | |
|  |  | schemes, Introduction to DMA |  | hardware | testing | |
|  |  |  |  | (Group:A) |  |  |
|  |  |  |  |  |  |  |
|  | 54 | DMA data transfer schemes, |  |  |  |  |
|  |  |  |  |  |  |  |



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|  |  | serial I/P data, serial O/P data |  |  |  |
|  |  |  |  |  | |
|  | 55 | Introduction to peripheral | 28 | Use of 8085 emulator for | |
|  |  | devices, 8255 PPI |  | hardware | testing |
|  |  |  |  | (Group: B) |  |
|  | 56 | 8253 pit controller, basics of |  |  |
|  |  |  |  |
|  |  | direct memory access |  |  |  |
|  |  |  |  |  | |
| 15th | 57 | DMA operation & 8257 DMA | 29 | Use of 8085 emulator for | |
|  |  | controller |  | hardware | testing |
|  |  |  |  | (Group:A) |  |
|  |  |  |  |  |  |
|  | 58 | 8237 DMA controller and its |  |  |  |
|  |  | operation |  |  |  |
|  |  |  |  |  | |
|  | 59 | Introduction to 8279 | 30 | Use of 8085 emulator for | |
|  |  | programmable KB controller |  | hardware | testing |
|  |  | & its pin layout |  | (Group: B) |  |
|  |  |  |  |  |  |
|  | 60 | 8251 Communication Interface |  |  |  |
|  |  | Adapter |  |  |  |
|  |  |  |  |  |  |



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|  |  |  |  |  |  | **Lesson Plan** | |  |
| Name of Faculty | | | | : | PREETY CHHABRA | | |  |
| Discipline | | |  | : | Computer Engg | |  |  |
| Semester | | |  | : | 4th |  |  |  |
| Subject | |  |  | : | OOPS | | |  |
| Lesson Plan Duration | | | | : | 15 Weeks ( From January 2018 to April 2018 ) | | | |
|  |  |  |  | |  |  |  |  |
| Wee |  |  | **Theory** | |  |  |  | **Practical** |
| k |  | Lectur |  | Topic |  | Prac | Topic |  |
|  |  | e Day | (including | |  | tical |  |  |
|  |  |  | assignment/test ) | | | Day |  |  |
| 1st |  |  | Fundamentals | | of object | G-1 | P-1Write a function using variables as arguments | |
|  |  | **1st** | oriented | programming | |  | to swap the values of a pair of integers | |
|  |  | and – procedure oriented | | | G-2 | P-1 | ---Do--- |
|  |  |  | programming | |  |  | P-2Consider a shopping list of items for which we | |
|  |  |  |  |  |  | G-1 | place an order with a dealer every month.The list | |
|  |  | **2nd** | object oriented | | |  | includes such as the code number and price of | |
|  |  |  | each item .we would like to perform operations | |
|  |  |  | programming (OOP) | | |  |
|  |  |  | Object oriented | | |  | such as adding an item to the list,deleting an item | |
|  |  | **3rd** | programming concepts | | |  | from the list and printing the total value of the | |
|  |  |  | order. |  |
|  |  |  | Classes, reusability, | | |  |  |
|  |  |  | encapsulation | |  | G-2 | P-2 | ---Do--- |
| 2nd |  |  | inheritance, | |  | G-1 | P-3 Write a program to read name, roll no | |
|  |  | **4th** | polymorphism, dynamic | | |  | ,internal external marks using classes and display | |
|  |  |  | binding, message | | |  | the same on the screen. | |
|  |  |  | passing, Data Hiding | | |  |  |  |
|  |  | **5th** | Benefits of OOPs and its | | | G-2 | P-3 | ---Do--- |
|  |  |  |  |  |
|  |  |  | Application | |  |  |  |  |
|  |  |  | Review of constructs of | | | G-1 | Revision of P-1,P-2 and P-3 | |
|  |  | **6th** | C used in C++: variables, | | |  | Revision of P-1,P-2 and P-3 | |
|  |  | types and type | |  | G-2 |
|  |  |  | declarations | |  |  |  |  |
|  |  |  |  | | |  |  | |
| 3rd |  | **7th** | user defined data types; | | | G-1 | P-4 Write a program of swapping of numbers by | |
|  |  | increment and | |  |  | accessing private numbers using friend function. | |
|  |  |  | decrement operators | | |  |  |  |
|  |  | **8th** | relational and logical | | | G-2 | P-4 | ---Do--- |
|  |  |  |  |  |
|  |  |  | operators; | |  |  |  |  |
|  |  | **9th** | if then else clause; | | |  | Revision of P-1,P-2 , P-3 and P-4 | |
|  |  | conditional expressions, | | | G-1 |
|  |  |  |  |  |  | G-2 | Revision of P-1,P-2 , P-3 and P-4 | |
| 4th |  | **10th** | input and output | | | G-1 | P-5Define a class to represent a bank account | |
|  |  | statement, loops, | | |  | using constructor including the following | |
|  |  |  | switch case | |  |  | members:- Data members i) For Single Customer | |
|  |  | **11th** | arrays, structure | | | G-2 | ii) For n Customers a) Name of the depositors b) | |
|  |  |  | unions, functions, | | |  | Account number c) Type of account d) Balance | |
|  |  |  | pointers; preprocessor | | |  | amount in the account Member function - To | |
|  |  | **12th** | directives and Header | | |  | assign initial values - To deposit an amount - To | |
|  |  | Files |  |  |  | withdraw an amount after checking the balance - | |
|  |  |  |  |  |  | G1 | To display the name and balance | |
|  |  |  |  |  |  | and | -----Revision | of P-5---- |
|  |  |  |  |  |  | G2 |  |  |
| 5th |  | **13th** | Scope Resolution | | | G-1 | -----Revision of P-5---- | |
|  |  |
|  |  |  | Operator Managing | | |  |  |  |
|  |  | **14th** | Console I/O Operations | | |  | -----Revision | of P-5---- |
|  |  | **15th** | C++ Stream, | |  | G-2 |
|  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  | G-1 | -----Revision | | of P-5---- |
|  |  |  | G-2 | -----Revision | | of P-5---- |
|  |  |  |  |  |  |  |
| 6th | **16th** | Unformatted and | G-1 | P-6Create 2 classes OM and DB which store the | | |
|  |
|  |  | Formatted Console I/O |  | value of distance. DM store distances in Meters | | |
|  | **17th** | Revision of Topics |  | and cm and DB in feet and inches. Write a | | |
|  |  | Revision of Topics | G-2 | program that can read values for the class objects | | |
|  |  |  |  | and add 1 object OM with another object of DB. | | |
|  |  |  |  | Use a friend function to carry out the addition | | |
|  |  |  |  | operation the object that stores the results may | | |
|  |  |  |  | be a DM object or a DB object, depending upon | | |
|  | **18th** |  |  | the units in which the results are required. The | | |
|  |  |  | display should be in the format of feet and inches | | |
|  |  |  |  | or meters and cms depending on the object on | | |
|  |  |  |  | display. |  |  |
|  |  |  | G-1 | -----Revision | of P-6---- | |
|  |  |  | G-2 | -----Revision | | of P-6---- |
|  |  |  |  |  | | |
| 7th |  |  | G-1 | -----Revision of P-5 and P-6---- | | |
|  | **19th** | Creation, accessing | G-2 | -----Revision of P-5 and P-6---- | | |
|  | G-1 | -----Revision of P-5 and P-6---- | | |
|  |  | class members |
|  | **20th** | Private Vs Public | G-2 | -----Revision of P-5 and P-6---- | | |
|  |  |  |  |  |
| 8th | **21st** | Constructor and | G-1 | P-7A book shop maintains the inventory of books | | |
|  | Destructor with and |  | that are being sold at the shop the list includes | | |
|  |  | without Arguments |  | details such as author, title and publisher and | | |
|  | **22nd** | Objects | G-2 | stock position. Whenever a customer wants the | | |
|  |  | Dynamic memory |  | book, the sales person inputs the title and author | | |
|  |  | Allocation with new and |  | and the system search the list and display | | |
|  |  | Delete Operator |  | whether it is available or not. If it is not, a | | |
|  |  |  |  | appropriate message is displayed, if it is, then the | | |
|  |  |  |  | system displays the book details and requests for | | |
|  |  |  |  | the number of copies require. If the requested are | | |
|  | **23rd** |  |  | available, the total cost of the required copies is | | |
|  |  |  |  | displayed: otherwise the message" Required | | |
|  |  |  |  | copies not in stock" is displayed. Design a system | | |
|  |  |  |  | using a class called books with suitable member | | |
|  |  |  | G-1 | functions and constructors. Use new operator in | | |
|  |  |  | and | constructor to allocate memory space require. | | |
|  |  |  | G-2 | -----Revision | of P-7---- | |
|  |  |  |  |  |  |  |
| 9th | **24th** | Method definition | G-1 | -----Revision of P-7---- | | |
|  |
|  |  | Inline Implementation |  |  |  |  |
|  | **25th** | Constant member | G-2 | -----Revision of P-7---- | | |
|  |  | functions |  |  |  |
|  |  | Static Function, This |  | -----Revision | of P-5,P-6 and P-7---- | |
|  |  | Pointer | G-1 |
|  |  | -----Revision | of P-5,P-6 and P-7---- | |
|  | **26th** |  | G-2 |
|  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | G- |  |  |
| 10th | **27th** | Friend Function and its | G-1 | P-8 Define a class string that could work as a | |
|  |
|  |  | Characteristics | And | userdefined string type include constructors that | |
|  | **28th** | Revision | G-2 | will enable us to create an .un-initialized string | |
|  |  | Introduction to |  | String s1; :/ string with length 0 And also to | |
|  |  | Operator Overloading, |  | initialize an object with string constant at the time | |
|  |  | Need of operator |  | of creation like String s2("well done"); . Include a | |
|  | **29th** | overloading |  | function that adds two strings to make a third | |
|  |  |  | string. |  |
|  |  |  | G-1 | -----Revision | of P-8---- |
|  |  |  | G-2 | -----Revision | of P-8---- |
|  |  |  |  |  |  |
| 11th |  | prefix and postfix, | G-1 | -----Revision | of P-8---- |
|  | **31st** | overloading binary |  |  |  |
|  | operators |  |  |  |
|  |  | instream/outstream |  |  |  |
|  |  | operator overloading |  |  |  |
|  |  | Constructor | G-2 | -----Revision of P-8---- | |
|  | **32nd** | Overloading, Type |  |  |  |
|  |  | Conversion, Rules of |  | -----Revision | of P-8---- |
|  |  | Operator Overloading | G-1 |
|  |  |  |  |
|  |  | Comparison between |  | -----Revision | of P-8---- |
|  |  | Function Overloading | G-2 |
|  |  |  |  |
|  | **33rd** | and overriding |  |  |  |
|  |  |  |  |  | |
| 12th | **34th** | Definition of | G-1 | P-9Create a class float that contains 2 float data | |
|  | inheritance, Types of |  | member. Over load all the 4 arithmetic operators | |
|  |  | inheritance; |  | so that do operate on the objects of float. | |
|  |  | Single inheritance, | G-2 | ----------Do--------------------- | |
|  | **35th** | hierarchical inheritance, | G-1 | P-10 Programming Exercise on Hybrid Inheritance | |
|  |  | multiple inheritance, |
|  |  | hybrid inheritance |  |  |  |
|  |  | ,protected data, private | G-2 | ----------Do--------------------- | |
|  | **36th** | data, public/data, |  |  |  |
|  |  | inheriting constructors |  |  |  |
|  |  | and destructors, |  |  |  |
| 13th |  | constructor for virtual |  |  |  |
|  | **37th** | base classes, |  |  |  |
|  | constructors and |  |  |  |
|  |  | destructors of derived |  |  |  |
|  |  | classes |  |  |  |
|  |  | d virtual functions, size | G-1 | P-11 Define 2 classes POLAR and RECTANGLE to | |
|  |  | of a derived class |  | represent points in the POLAR and RECTANGLE | |
|  |  |  |  | systems. Use conversion routines to convert from | |
|  |  |  |  | one system to the other. | |
|  | **38th** |  | G-2 | ----------Do--------------------- | |
|  |  |  | G-1 | -----Revision | of P-11---- |
|  |  |  | G-2 | -----Revision | of P-11--- |
|  |  |  |  |
|  |  |  |  |  |  |



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | order of invocation, |  |  |  |
|  | **39th** | Importance of virtual |  |  |  |
|  | function, function call |  |  |  |
|  |  | binding, virtual |  |  |  |
|  |  | functions |  |  |  |
| 14th | **40th** | implementing late | G-1 | P-12Create a base class called shape. use this class | |
|  | binding, need for virtual |  | to store two double type values that could be | |
|  |  | functions, |  | used to compute the area of fig. Derive the | |
|  |  | abstract base classes |  | specific class called TRIANGLE and RECTANGLE | |
|  | **41st** | and pure virtual |  | from the data shape. Add to base class, a member | |
|  |  | function get - data ( ) to initialize base class data | |
|  |  | functions, virtual |  |
|  |  | destructors |  | members and another member and another | |
|  |  | Components of a file, |  | member function display – area( ) to compute and | |
|  |  | different operation of |  | display the area of the fig.. Make display – area ( ) | |
|  |  | the file, communication |  | as a virtual function and redefine function in the | |
|  |  | in files |  | derived classes to suit their requirements, Using | |
|  |  |  |  | these 3 classes design a program that will accept | |
|  | **42nd** |  |  | dimension of RECTANGLE or TRIANGLE | |
|  |  |  | interactivity and display the area. \_\_\_\_\_\_\_\_\_\_ | |
|  |  |  | G-2 | -----------------D0------------ | |
|  |  |  | G-1 | -----Revision | of P-12---- |
|  |  |  |  |
|  |  |  | G-2 | -----Revision | of P-12--- |
|  |  |  |  |
|  |  |  |  |  | |
| 15th | **43rd** | creation of file streams, | G-1 | Exercise on file handling | |
|  | stream classes, header |  |  |  |
|  |  | files, updating of file |  |  |  |
|  |  | opening and closing a |  |  |  |
|  | **44th** | file, file modes and file | G-2 | Exercise on file handling | |
|  |  |  |  |
|  |  | pointers and their |  |  |  |
|  |  | manipulations, | G-1 | -----Revision of P-13---- | |
|  | **45th** | functions manipulation |  | -----Revision | of P-13---- |
|  | of file pointers, | G-2 |
|  |  | detecting end-of-file. |  |  |  |



**Lesson Plan**

**Name of faculty :** MANJEET KAUR

**Discipline :** Computer Engineering

**Semester :** 6

**Subject :** Distributed Computing

**Lesson Plan Duration :** 15 Weeks (from January, 2018 to April, 2018)

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Week** | **Theory** | | **Practical** | |
| **Lecture day** | **Topic**  **(including assignment /**  **test)** | **Practical Day**  **N/A** | **Topic**  **N/A** |
| 1st | 1st | Overview of Cloud Computing |  |  |
| 2nd | Overview of Cloud Computing |  |  |
| 3rd | Overview of Cloud Computing |  |  |
| 2nd | 4th | Characteristics of Cloud Computing |  |  |
| 5th | Characteristics of Cloud Computing |  |  |
| 6th | Advantages of Cloud Computing |  |  |
| 3rd | 7th | Advantages of Cloud Computing |  |  |
| 8th | Challenges of Cloud Computing |  |  |
| 9th | Challenges of Cloud Computing |  |  |
| 4th | 10th | Applications of Cloud Computing |  |  |
| 11th | Applications of Cloud Computing |  |  |
| 12th | Saas Service Model |  |  |
| 5th | 13th | Saas Service Model |  |  |
| 14th | Paas Service Model/ Assignment |  |  |
| 15th | Paas Service Model |  |  |
| 6th | 16th | Iaas Service Model |  |  |
| 17th | Private Cloud Deployment Model |  |  |
| 18th | Private Cloud Deployment Model |  |  |
| 7th | 19th | Public Cloud Deployment Model |  |  |
| 20th | Public Cloud Deployment Model |  |  |
| 21st | Hybrid Cloud Deployment Model |  |  |
| 8th | 22nd | Community Cloud Deployment Model |  |  |
| 23rd | Overview of Grid Computing |  |  |
| 24th | Overview of Grid Computing |  |  |
| 9th | 25th | Overview of Grid Computing |  |  |
| 26th | Overview of Grid Computing |  |  |
| 27th | Advantages of Grid Computing |  |  |
| 10th | 28th | Advantages of Grid Computing |  |  |
| 29th | Virtual Organizations /Assignment |  |  |
| 30th | Virtual Organizations |  |  |
| 11th | 31st | Virtual Organizations |  |  |
| 32nd | Applications of Grid Computing |  |  |
| 33rd | Applications of Grid Computing |  |  |
| 12th | 34th | Applications of Grid Computing |  |  |
| 35th | Cluster Computing |  |  |
| 36th | Cluster Computing |  |  |
| 13th | 37th | Peer to Peer Networks |  |  |
| 38th | Peer to Peer Networks |  |  |
| 39th | Peer to Peer Networks |  |  |
| 14th | 40th | Utility Computing/ Assignment |  |  |
| 41st | Utility Computing |  |  |
| 42nd | Ubiquitous Computing |  |  |
| 15th | 43rd | Ubiquitous Computing |  |  |
| 44th | Comparison of Grid, Cluster and Ubiquitous Computing |  |  |
| 45th | Comparison of Grid, Cluster and Ubiquitous Computing |  |  |

**Lesson Plan**

|  |  |  |
| --- | --- | --- |
| Name of the Faculty | : | MANGAT RAM |
| Discipline | : | Computer Engineering |
| Semester | : | 6th |
| Subject | : | **ENTREPRENEURSHIP DEVELOPMENT AND** |
|  |  | **MANAGEMENT** |
| Lesson Plan duration | : | 15 weeks (from January, 2018 to April, 2018) |
| Work load per week | : | Lecture – 03 |

|  |  |  |
| --- | --- | --- |
| Week |  | Theory |
|  | Lecture | Topic |
|  | Day | (Including assessment/test) |
| 1st | 1st | Introduction: Concept /Meaning and need of entrepreneurship |
|  | 2nd | Qualities and functions of entrepreneur and barriers in entrepreneurship |
|  | 3rd | Sole proprietorship and partnership forms of business organization |
| 2nd | 4th | Schemes of assistance by entrepreneurial support agencies at National |
|  |  | level organization |
|  | 5th | Schemes of assistance by entrepreneurial support agencies at State level |
|  |  | organization |
|  | 6th | Schemes of assistance by entrepreneurial support agencies at District level |
|  |  | organization |
| 3rd | 7th | NSIC, NRDC, DC |
|  | 8th | MSME, SIDBI |
|  | 9th | Commercial Banks, SFC’s TCO |
| 4th | 10th | KVIB, DIC |
|  | 11th | Technology Business Incubators (TBI) Science and Technology |
|  |  | Entrepreneur Parks |
|  |  |  |
|  | 12th | Market Survey and Opportunity Identification: Scanning of the business |
|  |  | environment |
| 5th | 13th | Salient features of National and State industrial policies and resultant |
|  |  | business opportunities |
|  | 14th | Supply in potential areas of growth, |
|  | 15th | Types and conduct of market survey & Assessment of demand |
| 6th | 16th | Identifying business opportunity, Considerations in product selection |
|  | 17th | 1st sessional test (Tentative) |
|  | 18th | Assessment |
| 7th | 19th | Project report Preparation |
|  | 20th | Preliminary project report |

|  |  |  |
| --- | --- | --- |
|  | 21st | Detailed project report including technical, economic |
| 8th | 22nd | Detailed project report including market feasibility |
|  | 23rd | Common errors in project report preparations |
|  | 24th | Exercises on preparation of project report |
|  |  |  |
| 9th | 25th | Introduction to Management: Definitions and importance of management, |
|  |  | Functions of management |
|  |  |  |
|  | 26th | Importance and process of planning, organizing, staffing, directing and |
|  |  | controlling, Principles of management (Henri Fayol, F.W. Taylor) |
|  | 27th | Concept and structure of an organization & Line organization, Line and |
|  |  | staff organization & Functional Organisation |
| 10th | 28th | 2nd sessional test (Tentative) |
|  | 29th | Assessment |
|  | 30st | Leadership: Definition and Need, Qualities and functions of a leader, |
|  |  | Manager Vs leader, Types of leadership |
| 11th | 31nd | Motivation: Definitions and characteristics, Factors affecting motivation |
|  | 32rd | Theories of motivation (Maslow, Herzberg, Douglas, McGregor) |
|  | 33th | Human Resource Management: Introduction and objective, Introduction to |
|  |  | Man power planning, recruitment and selection |
| 12th | 34th | Introduction to performance appraisal methods |
|  | 35th | Material and Store Management: Introduction functions, and objectives of |
|  |  | ABC Analysis and EOQ |
|  | 36th | Marketing and sales : Introduction, importance, and its functions, Physical |
|  |  | distribution, |
|  |  |  |
| 13th | 37th | Financial Management: Introductions, importance and its functions |
|  |  |  |
|  | 38th | Elementary knowledge of income tax, sales tax, excise duty, custom duty |
|  |  | and VAT, |
|  | 39th | Customer Relation Management (CRM): Definition and need, Types of |
|  |  | CRM |
| 14th | 40st | process control, Total |
|  |  | employees Involvement |
|  |  |  |
|  | 41nd | Just in time (JIT) |
|  | 42rd | Intellectual Property Right (IPR): Introductions, definition and its |
|  |  | importance, Infringement related to patents, copy right, trade mark |
| 15th | 43th | 3rd sessional test (Tentative) |
|  | 44th | Assessment |
|  | 45th | Revision |



**Lesson Plan**

|  |  |  |
| --- | --- | --- |
| Name of the Faculty | : | POOJA |
| Discipline | : | Computer Engineering |
| Semester | : | 6th |
| Subject | : | **EMPLOYABILITY SKILLS – II** |
| Lesson Plan duration | : | 15 weeks (from January, 2018 to April, 2018) |
| Work load per week | : | Practical – 02 |

|  |  |  |
| --- | --- | --- |
| Week |  | Practical |
|  | Practical | Topic |
|  | Day |  |
| 1st | 1st | Oral Practice |
| 2nd | 2nd | Mock interview |
| 3rd | 3rd | Preparing for meeting |
| 4th | 4th | Preparing for meeting |
| 5th | 5th | Group discussion |
| 6th | 6th | Group discussion |
| 7th | 7th | Seminar presentation |
| 8th | 8th | Seminar presentation |
| 9th | 9th | Mock interview |
| 10th | 10th | Making a presentation |
| 11th | 11th | Elements of good presentation |
| 12th | 12th | Structure and tools of presentation |
| 13th | 13th | Paper reading & Power point presentation |
| 14th | 14th | Group discussion |
| 15th | 15th | Mock interview |

Lesson Plan

Name of the Faculty : DIVYA SAINI

[Discipline :](file:///C:\Users\LAB6%20PC19\Desktop\6th%20sem%20L%20P\Network%20Security.docx#bookmark2) Computer Engg.

[Semester :](file:///C:\Users\LAB6%20PC19\Desktop\6th%20sem%20L%20P\Network%20Security.docx#bookmark3) 6th

**Subject** : Network Security

Lesson Plan Duration : 15 weeks (from January, 2018 to April, 2018)

Work Load (Lecture / Practical) per week (in hours): Lectures-03, Practical-03

| **Week** | **Theory** | | **Practical** | |
| --- | --- | --- | --- | --- |
| **Lecture day** | **Topic (including assignment / test)** | **Practical Day** | **Topic** |
| **1st** | **1st** | Need for securing a network | 1st | Study of various hacking tools. |
| **2nd** | Principles of Security, Type of attacks |
| **3rd** | Introduction to cyber crime, Cyber law-Indian Perspective (IT Act 2000 and amended 2008) |
| **2nd** | **4th** | Cyber ethics, Ethical hacking |
| **5th** | What is hacking? |
| **6th** | Attacker, Phreaker |
| **3rd** | **7th** | Introduction to basic encryption and decryption | 2nd | Writing program in C to Encrypt/ Decrypt using XOR key |
| **8th** | Concept of symmetric and asymmetric key cryptography |
| **9th** | Overview of DES, |
| **4th** | **10th** | Overview of RSA |
| **11th** | Overview of PGP |
| **12th** | Introduction to Hashing |
| **5th** | **13th** | Introduction to MD5 |
| **14th** | Introduction to SSL (Secure Sockets Layer) |
| **15th** | Introduction to SSH (Secure Shell) |
| **6th** | **16th** | Introduction to HTTPS (Hyper Text Transfer Protocol Secure) |
| **17th** | Digital Signature | 3rd | Practical applications of  digital signature. |
| **18th** | Digital Certification, IPSec |
|  |  |  |  |  |
| **7th** | **19th** | Definitions Virus, Worms and Trojans | 4th | Installation and comparison of  various anti virus software |
| **20th** | Preventive measures access central |
| **21st** | Checksum verification |
| **8th** | **22nd** | Process configuration, |
| **23rd** | Virus scanners |
| **24th** | Heuristic scanners |
| **9th** | **25th** | Application level virus scanners |
| **26th** | Deploying virus protection |
| **27th** | Definition and types of firewalls | 5th | Installation and study of  various parameters of firewall |
| **10th** | **28th** | Firewall configuration |
| **29th** | Firewall configuration |
| **30th** | Limitations of firewall |
| **11th** | **31st** | Introduction to Intrusion Detection System (IDS) IDS limitations |
| **32nd** | Teardrop attacks |
| **33rd** | Counter measures, Host based IDS set up |
| **12th** | **34th** | Handling Cyber Assets |
| **35th** | Configuration policy as per standards |
| **36th** | Disposable policy |
| **13th** | **37th** | Basics of Virtual Private Network (VPN) | 6th | Study of VPN |
| **38th** | Setting of VPN |
| **39th** | VPN diagram |
| **14th** | **40th** | Configuration of required objects, |
| **41st** | Exchange Keys,  Modifying security policy |
| **42nd** | Disaster categories network disasters server disasters |
| **15th** | **43rd** | Cabling, topology, single point of failure |
| **44th** | Save configuration files, UPS, RAID, |
| **45th** | Clustering, Backups, server recovery |

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|  | | |  | **Lesson Plan** | | |
| Name of Faculty | | | : | Divya Saini | | |
| Discipline | | | :. | Computer Engineering | | |
| Semester | | | : | VI | | |
| Subject | | | : | Programming in JAVA | | |
| Lesson Plan Duration : | | | | | 15 Weeks ( From January 2018 to April 2018 ) | | | |
|  |  |  |  | | |  | |  |
| **Wee** |  |  | **Theory** | | |  | | **Practical** |
| **k** | **Lecture** |  |  | | **Topic** | **Practic** | | **Topic** |
|  | **Day** | **(including assignment/test )** | | | | **al Day** | |  |
| 1st | 1 | 1. A brief history | | | | 1 | | PRACTICAL 1- Write a program |
|  |  | 2. How Java works? | | | |  | | which tells whether a number is |
|  |  | 3. Java features | | | |  | | even or odd. Take a range from 1– |
|  | 2 | 1. | Java Virtual Machine (JVM) | | |  | | 50 |
|  |  | 2. | Java In Time (JIT) | | |  | |  |
|  | 3 | 1. | Using Java with other tools | | |  | |  |
| 2nd | 4 | 1. | Native code | | | 2 | | PRACTICAL 2- Write a programme to |
|  |  | 2. | Java application types | | |  | | convert the given temperature in |
|  | 5 | 1. Comparison with C and C++ | | | |  | | Fahrenheit to Celsius |
|  | 6. | Revision of chapter 1 | | | |  | |  |
| 3rd | 7 | Test of chapter 1 | | | | 3 | | PRACTICAL 3 - Write a programme to |
|  |  |  |  | |  |  | | find all the numbers and sum of all |
|  | 8 | 1. Working with data types | | | |  | | integers greater than 100 |
|  |  |  |  | |  |  | |
|  |  |  |  | |  |  | | less than 200 that are divisible by 7 |
|  | 9 | 1. | Control flow statements | | |  | |  |
| 4th | 10 | 1. | Control flow statements contd. | | | 4 | | PRACTICAL 4- Given a |
|  |  |  |  | |  |  | | list of marks ranging from 0 to |
|  |  |  |  | |  |  | | 100, write a programme to |
|  | 11 | 1. | Array | |  |  | |
|  |  |  |  | |  |  | | compute and |
|  |  |  |  | |  |  | | print the number of student should |
|  | 12 | 1. | Array Contd. | | |  | |
|  |  | | have obtained marks |
|  |  |  |  | |  |  | |
| 5th | 13 | Sessional test-1 | | | | 5 | | PRACTICAL 5- Admission to a |
|  | 14 | 1. | Casting | |  |  | | professional course is subject to the |
|  | 15 | 1 Command line arguments | | | |  | | following conditions: |
| 6th | 16 | Revision of chapter 2 | | | | 6 | | Revision PRACTICAL 1-5 |
|  | 17 | Test chapter 2 | | | |  | |  |
|  | 18 | 1. | Introduction to Classes | | |  | |  |
| 7th | 19 | 1. Inheritance | | |  | 7 | | PRACTICAL 6- Write programme using |
|  | 20 | 1. | Encapsulation | | |  | | a do ..... while loop to calculate and |
|  | 21 | 1. | Polymorphism | | |  | | print the first m ibonacci numbers |
|  |  |  | | | |  | |  |
| 8th | 22 | 1. Constructors and finalizers | | | | 8 | | PRACTICAL 7- Write a programme to |
|  | 23 | 1. | Garbage collection, access | | |  | | evaluate the following investment |
|  |  | specifier | | |  |  | | equation V=P (1+r)n |
|  | 24 | Revision of chapter 3 | | | |  | |  |
| 9th | 25 | Test of chapter 3 | | | | 9 | | PRACTICAL 8- Write a program which |
|  | 26 | Sessional test-2 | | | |  | | will store the students roll no. names |
|  | 27 | 1. | Using Java interface | | |  | | and total marks in the |
|  |  |  |  | |  |  | | database |
| 10th | 28 | 1. Using Java packages | | | | 10 | | PRACTICAL 9- Write a program which |
|  | 29 | Test of chapter 4 | | | |  | | will display all those records whose |
|  | 30 | 1. Over view of exception | | | |  | | marks are |
|  |  | handling | | |  |  | | above 75% |
|  |  |  |  | |  |  | |  |



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| 11th | 31 | 1. Method to use exception | | 11 | PRACTICAL 10- Write a programme to |
|  |  | handling | |  | draw the following using Applet: |
|  | 32 | 1. | Method available to |  |  |
|  |  | exceptions | |  |  |
|  | 33 | 1. Creating your own exception | |  |  |
|  |  | classes | |  |  |
| 12th | 34 | Revision chapter 5 | | 12 | PRACTICAL 11- Exercises on |
|  | 35 | Test of chapter 5 | |  | implementing Java Classes |
|  | 36 | 1. | Threads and Multi-threading |  |  |
|  |  | overview | |  |  |
|  |  | 2. | Thread basics |  |  |
| 13th | 37 | 1. The thread control methods | | 13 | PRACTICAL 12- Exercises on |
|  | 38 | 1. | The threads life cycle and |  | exceptional handling |
|  |  | synchronization | |  |  |
|  | 39 | Test of chapter 6 | |  |  |
| 14th | 40 | 1. | Java applets Vs Java | 14 | PRACTICAL 13- Exercises on creating |
|  |  | applications | |  | and running threads |
|  | 41 | 1. | Building application with JDK |  |  |
|  | 42 | 1. | Building applets with JDK, |  |  |
|  |  | HTML for Java applets | |  |  |
| 15th | 43 | 1. Managing input-output stream | | 15 | Revision PRACTICAL 6-13 |
|  |  | Revision of chapter 7 | |  |  |
|  | 44 | Test of chapter 7 | |  |  |
|  | 45 | Sessional test-3 | |  |  |

