**Lesson Plan**

Name of the Faculty : Archana Panwar

Discipline : Computer Engineering

Semester : II

Subject : Desktop Publishing

Lesson Plan Duration : 15 Weeks( From January 2018 to April 2018)

Work Load (lecture /Practical)per week : Practical - 06

|  |  |
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| **week**  | **Practical** |
| **Practical** **Day** | **Practical** | **Topics to be explained through demonstartion** |
| 1st  | **1** | Using windows explorer and other windows elements. | **1. Introduction**  Overview of Desktop Publishing (DTP),  Introduction of various keys in the keyboard and their functions.  |
| **2** | Creating and opening a document in page maker/publisher /scribus. |
| 2nd | **3** | Formatting and editing a document. | **2. Pagemaker /Publisher /Scribus**Document needs, creating a document, editing and formatting a  document. |
| **4** |  Formatting and editing a document. |
| 3rd  | **5** | Saving and printing a given document. |  Saving and printing a document |
| **6** | Insertion of text and graphics in a given document from external source. |  Inserting text and garphics , inserting  columns, fonts and styles,integrating  images and graphics from a drawing package in the document. elements, frame option, arrange text, image control,expert tracking, indent/tabs, styles, type styles, layout, tool bar(page setting). |
| 4th | **7** | Insertion of text and graphics in a given document from external source. |
| **8** | Using columns utility, to give the document column look. |
| 5th | **9** | Using various fonts and styles to make a document more beautiful | **3. Corel Draw / Inkscape**Introduction , exploring corel draw screen , using dialog boxes, using roll ups, create open file , save file, import /export files ,print file. |
| **10** | Using various fonts and styles to make a document more beautiful |
| 6th | **11** | Use of page maker to make transparencies. |  **Pagemaker /Publisher /Scribus** Making transparencies. |
| **12** | Formatting a given file by using undo/redo, repeat ,cut copy, paste, delete, duplicate and clone utilities. | **Corel Draw / Inkscape*** use of ribbon bar ,use of tool box, select object, shaping objects using zoom tool ,filling objects, outline objects, use of line tool.
* setting up new drawing, setting multi page document, undo redo mistakes, repeat, cut, copy, paste, delete, duplicate clone.
 |
| 7th | **13** | Formatting a given file by using undo/redo, repeat ,cut copy, paste, delete, duplicate and clone utilities. |
| **14** | Inserting objects in the drawing , aligning ordering, grouping and ungrouping of those objects. | * Insert object, paste special, copy attributes from select all, drawing objects, selecting objects.

**4. Formatting Objects** **Arranging objects:** align, order, group, ungroup,  Combine, break apart, weld , intersection, trim, saperate. |
| 8th | **15** | Inserting objects in the drawing , aligning ordering, grouping and ungrouping of those objects. |
| **16** | Use of combine, break apart, weld, intresection, trim and seperate tools in a given drawing. |
| 9th | **17** | Use of combine, break apart, weld, intresection, trim and seperate tools in a given drawing. |
| **18** | Use of mode edit tools i.e. to line, to curve, to strech and rotate. |  **Mode edit:** To line , to curve, strech Rotate, allign, convert to curves, |
| 10th | **19** | Use of mode edit tools i.e. to line ,to curve ,to strech and rotate. |
| **20** | Creating special effects i.e. transform roll up ,envelop roll up, add perspective, extrude roll up, contour roll up , power line, power clip, clear effects. | **Creating special effects:** Transform roll up, clear transformation, add perspective, envelope roll up,**Creating special effects**: blend roll up, extrude roll up, counter roll up, power line, power clip clear effects. |
| 11th | **21** | Creating special effects i.e. transform roll up ,envelop roll up, add perspective, extrude roll up, contour roll up , power line, power clip, clear effects. | * page set up , insert/delete page ,use of layers, roll up, grid and scale set up ,guide line set up.
 |
| **22** | To insert character and paragraph text in a drawing and frame , setting of tabs, indents, bullets and spacing in paragraph text. | **Working with text:** character paragraph text , frame , setting of tabs, indents, bullets, spacing in paragraph text. |
| 12th | **23** | To insert character and paragraph text in a drawing and frame , setting of tabs, indents, bullets and spacing in paragraph text. |
| **24** | Filling of text to a given path, aligning it to base line , starighten text and edit text. |
| 13th | **25** | Filling of text to a given path, aligning it to base line , starighten text and edit text. |
| **26** | Using tools such as spell checker and thesaurus. |
| 14th | **27** |  Using tools such as spell checker and thesaurus |
| **28** |  Using find and replace text utility and type assist |
| 15th | **29** | Adding various symbols to a drawing and creating different patterns. |
| **30** | Adding various symbols to a drawing and creating different patterns. |

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|  |  |  |  |  | **Lesson Plan** |  |
| Name of Faculty |  | : | Rajesh Kumar |
| 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 |
|  |  |  |  |  |  |
| 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 | : | Parminder Mann |
| 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** |  |
|  | **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 | : | Uma Kakkar |  |  |
| 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 |
|  |  |  |  |  |
| 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 | : | Abha Bansal |  |  |
| 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 | : | Surinder Chaudhary |  |  |  |  |  |  |  |  |
| 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 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 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 |  |  |
|  |  |  |  |  |
|  |  | 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, |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 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 |  |  |  |
|  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  | **Lesson Plan** |  |
| Name of Faculty | : | Monu |  |
| 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 | **19th** |  | G-1 | -----Revision of P-5 and P-6---- |
|  |  | Creation, accessing | G-2 | -----Revision of P-5 and P-6---- |
|  | G-1 | -----Revision of P-5 and P-6---- |
|  | **20th** | class members |
|  | **21st** | Private Vs Public | G-2 | -----Revision of P-5 and P-6---- |
|  |  |  |  |  |
| 8th |  | 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 |
|  | **22nd** | without Arguments |  | details such as author, title and publisher and |
|  | **23rd** | 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 |
|  | **24th** |  |  | 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 | **25th** | Method definition | G-1 | -----Revision of P-7---- |
|  |
|  |  | Inline Implementation |  |  |  |  |
|  | **26th** | 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---- |
|  | **27th** |  | G-2 |
|  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  | G- |  |  |
| 10th | **28th** | 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 |
|  | 29th | Revision | G-2 | will enable us to create an .un-initialized string |
|  | **30th** | 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 |
|  |  | 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 :** Saravjit Chahal

**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** |
| **Lecture day** | **Topic****(including assignment /****test)** |
| 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/ Assignment |
| 5th | 13th | Saas Service Model |
| 14th | Paas Service Model |
| 15th | Sessional test |
| 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/Assignment |
| 10th | 28th | Advantages of Grid Computing |
| 29th | Virtual Organizations |
| 30th | Sessional Test |
| 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 |
| 41st | Utility Computing/ Assignment |
| 42nd | Ubiquitous Computing |
| 15th | 43rd | Ubiquitous Computing |
| 44th | Comparison of Grid, Cluster and Ubiquitous Computing |
| 45th | Sessional Test |

**Lesson Plan**

|  |  |  |
| --- | --- | --- |
| Name of the Faculty | : | Krishan Lal |
| 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 | : | Amit Bansal |
| 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 : Mr. Deepak Kumar

[Discipline :](file:///C%3A%5CUsers%5CLAB6%20PC19%5CDesktop%5C6th%20sem%20L%20P%5CNetwork%20Security.docx#bookmark2) Computer Engg.

[Semester :](file:///C%3A%5CUsers%5CLAB6%20PC19%5CDesktop%5C6th%20sem%20L%20P%5CNetwork%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)** | **PracticalDay** | **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 | : | Kanchan 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% |
|  |  |  |  |  |  |  |
| 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 |  |  |

