**Lesson Plan**

**Name of the Assistant Professor**- Ms. Poonam Rani

**Subject**- Computer Science & Applications

**Lesson Plan**- 17 Weeks (July-Nov 2018)

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| **Week** | **Date** | **B.Voc(Software Development) (IIIrd Sem)**  **Paper: BVSD-31, RDBMS - I** | **B.Voc(Software Development) (IIIrd Sem)**  **Paper: BVSD-32, Data Structure** |
| 1 | 16-July-18 | DBMS - Definition | Introduction to Data Structures: |
| 17-July-18 | Characteristics of DBMS | Elementary Data Organization |
| 18-July-18 | Application of DBMS | Types of data structure |
| 19-July-18 | Advantages of DBMS | Data Structure Operations |
| 20-July-18 | Instances, Schemas | Algorithm Complexity and Time-space Tradeoff |
| 21-July-18 | Database States, | Classification of Data Structures |
| 22-July-18 | Sunday | |
| 2 | 23-July-18 | Three Levels of Architecture, | String Processing: Storing Strings, String Operations,. |
| 24-July-18 | Data Independence, | Pattern Matching Algorithms-1 |
| 25-July-18 | DBMS Languages, | Pattern Matching Algorithms-2 |
| 26-July-18 | Data Dictionary | Arrays: Linear Arrays, Operations on Arrays |
| 27-July-18 | Database Users, | Traversing of linear Array |
| 28-July-18 | Data Administrators | Insertion in linear array |
| 29-July-18 | Sunday | |
| 3 | 30-July-18 | Data Models, | Deleting an element in linear array |
| 31-July-18 | Shaheedi udham singh’s martyrdom day | |
| 1-Aug-18 | Types of Data Models | Merging of two sorted array |
| 2-Aug-18 | Entity Relationship Model, Entity Types, Entity Sets, Attributes and its types, | Linear search |
| 3-Aug-18 | Keys, | Binary search |
| 4-Aug-18 | E R Diagram | Bubble sort |
| 5-Aug-18 | Sunday | |
| 4 | 6-Aug-18 | E R Diagram | Selection sort |
| 7-Aug-18 | Data Integrity | Insertion sort |
| 8-Aug-18 | Network Data Model | Merge sort |
| 9-Aug-18 | Hierarchical Data model | Multidimensional Arrays, |
| 10-Aug-18 | Comparision between data models | Addition of 2 d array |
| 11-Aug-18 | RDBMS - Concept | Multiplication of 2 d array |
| 12-Aug-18 | Sunday | |
| 5 | 13-Aug-18 | Haryali teej | |
| 14-Aug-18 | Components of RDBMS | Sparse Array |
| 15-Aug-18 | Independence day | |
| 16-Aug-18 | Codd’s Rules. | Class test |
| 17-Aug-18 | Relational Algebra - Selection, Projection | Linked Lists: Representation of Linked List in Memory |
| 18-Aug-18 | Union, Intersection, Cartesian product, | Traversal, |
| 19-Aug-18 | Sunday | |
| 6 | 20-Aug-18 | Different types of Join like Theta Join, Equi-join, Natural Join,. | Searching an element in unsorted linked list |
| 21-Aug-18 | Outer Join | Searching an element in sorted linked list |
| 22-Aug-18 | Id-ul-zuha(bakrid) | |
| 23-Aug-18 | Functional Dependencies | Insertion of an element in linked list |
| 24-Aug-18 | Anomalies as a Database: A Consequences of Bad Design | Insertion of an element in sorted linked list |
| 25-Aug-18 | Normalization: 1NF, | Deletion of an element in a linked list |
| 26-Aug-18 | Sunday | |
| 7 | 27-Aug-18 | 2NF, 3NF | Types of linked list |
| 28-Aug-18 | BCNF | Circular linked list |
| 29-Aug-18 | 4NF, 5NF | Header linked list |
| 30-Aug-18 | Good & Bad Decomposition | Doubly linked list |
| 31-Aug-18 | Data Definition using SQL Databases | Traversion in doubly linked list |
| 1-Sep-18 | Data Types | Insertion and deletion in doubly linked list |
| 2-Sep-18 | Sunday | |
| 8 | 3-Sep-18 | Janmashtmi | |
| 4-Sep-18 | Tables, Creating Tables, Viewing Data in Table, Eliminating Duplicacy, Sorting Data, Creating Table from Table | Stack & representation of stack |
| 5-Sep-18 | Inserting Data in Table from another Table, Delete Operations, Updating, Modifying, Renaming, Truncating, Destroying Tables. | Operation on stack |
| 6-Sep-18 | Data Constraints: Types of Constraints | Array implementation of stack |
| 7-Sep-18 | Constraints and their Implementation | Push operation using linked list |
| 8-Sep-18 | Data Functions | Pop operation using linked list |
| 9-Sep-18 | Sunday | |
| 9 | 10-Sep-18 | Indexes Scalar Function, | Application of stack |
| 11-Sep-18 | Group Functions | Converstion of infix to postfix expression |
| 12-Sep-18 | Group Functions | examples |
| 13-Sep-18 | Aggregate Functions | Algotihms for conversion |
| 14-Sep-18 | Aggregate Functions | Evaluation of postfix expression |
| 15-Sep-18 | Creating Index, Duplicate and Unique Index | Algo for evaluationof post fix expression |
| 16-Sep-18 | Sunday | |
| 10 | 17-Sep-18 | Reverse Key Index, | Quick sort |
| 18-Sep-18 | Bit map Index | Alogo of quick sort |
| 19-Sep-18 | Function Based Index. | Recursion |
| 20-Sep-18 | Views: Creating View, | Queue & types of queue |
| 21-Sep-18 | Renaming, Updateable View | Operation on queue |
| 22-Sep-18 | Destroying View. | Array implementation of queue |
| 23-Sep-18 | Sunday | |
| 11 | 24-Sep-18 | Introduction to PL/SQL – PL/SQL | Linked list implementation of queue |
| 25-Sep-18 | advantages PL/SQL – PL/SQL | Circular queue |
| 26-Sep-18 | Transactions | Double ended queue |
| 27-Sep-18 | How to create & close transaction | Algorithm for dequeue |
| 28-Sep-18 | Creating a Save Point, | Applications of queue |
| 29-Sep-18 | Revision | Applications of queue |
| 30-Sep-18 | Sunday | |
| 12 | 1-Oct-18 | Class Test | Tree: Introduction |
| 2-Oct-18 | Mahatma gandhi’s jayanti | |
| 3-Oct-18 | Cursors | Tree Terminology |
| 4-Oct-18 | types of cursors | Binary Trees, |
| 5-Oct-18 | types of cursors | Sessional |
| 6-Oct-18 | types of cursors | Representation of Binary Trees in Memory |
| 7-Oct-18 | Sunday | |
| 13 | 8-Oct-18 | Cursor Cursor for Loops | Threaded Binary Trees |
| 9-Oct-18 | Cursor Cursor for Loops | Balanced Tree, |
| 10-Oct-18 | Maharaja aggarsen jayanti | |
| 11-Oct-18 | Sessional | Different Tree Traversal Algorithms examples |
| 12-Oct-18 | Parameterized Cursors. | PreOder Tree Traversal Algo |
| 13-Oct-18 | Parameterized Cursors. | PreOder Tree Traversal |
| 14-Oct-18 | Sunday | |
| 14 | 15-Oct-18 | PL/SQL Security | Inorder tree Traversal |
| 16-Oct-18 | PL/SQL Security | Post order tree traversal |
| 17-Oct-18 | PL/SQL Security | Revision |
| 18-Oct-18 | Dussehra | |
| 19-Oct-18 | PL/SQL Database Objects | Searching in a binary search tree |
| 20-Oct-18 | PL/SQL Database Objects | Insertion in a binary search tree |
| 21-Oct-18 | Sunday | |
| 15 | 22-Oct-18 | Revision | Deletion in a binary search tree Case –I,II |
| 23-Oct-18 | Class Test | Deletion in a binary search tree Case –III |
| 24-Oct-18 | Maharishi valmiki’s birthday | |
| 25-Oct-18 | Import/Export Tools for Import/Export, SQL for Import/Export. | Heap Sort Example |
| 26-Oct-18 | Import/Export Tools for Import/Export, SQL for Import/Export. | Heap sort Algorithm |
| 27-Oct-18 | Import/Export Tools for Import/Export, SQL for Import/Export. | Representation of Graphs |
| 28-Oct-18 | Sunday | |
| 16 | 29-Oct-18 | ER model of a company | Representation of Graphs : Adjacency Matrix, Path Matrix, |
| 30-Oct-18 | ER model of railway reservation system | Shortest Path Algorithm, |
| 31-Oct-18 | ER model of library | Traversing a Graph.-BFS |
| 1-Nov-18 | Haryana day | |
| 2-Nov-18 | Revision of Normalization | Traversing a Graph.-DFS |
| 3-Nov-18 | Difference between normalization | Radix Sort |
| 4-Nov-18 | Sunday | |
| 17 | 5-Nov-18 | Revision | Revision |

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| **Week** | **Date** | **B.Voc(Software Development) (Ist Sem)**  **Paper: BVSD-16, C Language**  **Group -I** |
| 1 | 18-July-18 | C Introduction : basics , Simple addition of two nos program |
|  | 19-July-18 | 1. Program to find area and circumference of circle. 2. Program to find the simple interest. 3. Program to convert temperature from degree centigrade to Fahrenheit. |
| 2 | 25-July-18 | 1. Program to calculate sum of 5 subjects & find percentage. 2. Program to show swap of two no’s using third variable. 3. Program to show swap of two no’s without using third variable. 4. Program to find gross salary. |
|  | 26-July-18 | 1. Program to find whether given no is even or odd. 2. Program to find that entered year is leap year or not. |
| 3 | 01-Aug-18 | 10. Program to find greatest in 3 numbers using conditional operator. |
|  | 02-Aug-18 | 11. Program to print a table of any number.  12. Program to print factorial of any number. |
| 4 | 08-Aug-18 | 13. Program to reverse a given number.  14. Program to check no. is palindrome or not |
|  | 09-Aug-18 | 15. Program to check a given no. is prime or not.  16. Program to display first 50 prime no & their sum. |
| 5 | 15-Aug-18 | Independence day |
|  | 16-Aug-18 | 17. Program to use switch statement. Display Monday to Sunday. |
| 6 | 22-Aug-18 | Id-ul-zuha(bakrid) |
|  | 23-Aug-18 | 18. To print  \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* |
| 7 | 29-Aug-18 | 19. Program to print Fibonacci series up to 100.  20. Program to display sum of series 1+1/2+1/3+……….+1/n. |
|  | 30-Aug-18 | 1. Program to show sum of 10 elements of array & show the average. 2. Program to find the maximum no in an array. |
| 8 | 05-Sep-18 | 1. Program to find transpose of a matrix.. |
|  | 06-Sep-18 | 1. Program to find sum of two matrices. 2. Program to find subtraction of two matrices |
| 9 | 12-Sep-18 | 26. Program to find multiplication of two matrices. |
|  | 13-Sep-18 | 27. Program to show input and output of a string.  28. Program to find whether a string is palindrome or not. |
| 10 | 19-Sep-18 | 1. Program to find square of a number using functions. 2. Program to find factorial of a number using functions 3. show table of a number using functions. |
|  | 20-Sep-18 | 1. Program to find factorial of a number using recursion. |
| 11 | 26-Sep-18 | 1. Write a C program that uses functions to perform the following operations: To delete n Characters from a given position in a given string. |
|  | 27-Sep-18 | 1. Program to add two number using pointer. |
| 12 | 03-Oct-18 | 1. Program to show call by value. 2. Program to show call by reference. |
|  | 04-Oct-18 | 1. Functions Revision |
| 13 | 10-Oct-18 | Maharaja aggarsen jayanti |
|  | 11-Oct-18 | 38. Write a C program to convert a Roman numeral to its decimal equivalent. |
| 14 | 17-Oct-18 | 39. Program to implement Storage classes i.e. auto, register, extern etc. |
|  | 18-Oct-18 | Dussehra |
| 15 | 24-Oct-18 | Maharishi valmiki’s birthday |
|  | 25-Oct-18 | 40. Write a program to calculate length of a string  41. Write a Program to reverse a string without using function |
| 16 | 31-Oct-18 | Revision |
|  | 01-Nov-18 | Haryana day |

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| **Week** | **Date** | **B.Voc(Software Development) (Vth Sem)**  **Paper: BVSD-55, ASP.NET** |
| 1 | 16-July-18 | Create a project for console application |
|  | 17-July-18 | 1. Create a web form, add button, and display a message when user clicks the button 2. Write a program to implement a four function calculator |
| 2 | 23-July-18 | Create a Log in Window |
|  | 24-July-18 | Develop a form to pick a date from Calendar control and display the day, month, and year details in separate text boxes |
| 3 | 30-July-18 | Develop an application to perform timer based quiz of 10 questions |
|  | 31-July-18 | Shaheedi udham singh’s martyrdom day |
| 4 | 6-Aug-18 | Develop an application using the File and Directory controls to implement a common dialog box |
|  | 7-Aug-18 | Create a database, add a web configuration file and design the window. |
| 5 | 13-Aug-18 | Haryali teej |
|  | 14-Aug-18 | WAP to create stored procedure. |
| 6 | 20-Aug-18 | Develop a database application to store the details of students using ADO.NET |
|  | 21-Aug-18 | Develop a database application using ADO.NET to insert, modify, update and delete operations |
| 7 | 27-Aug-18 | Develop an application using Data grid to display records |
|  | 28-Aug-18 | Develop an application using Data grid to add, edit and modify record |
| 8 | 3-Sep-18 | Develop an application using Repeator Control to display records |
|  | 4-Sep-18 | Create a simple ASP.NET page to Output Text with a form, two HTML text boxes, an HTML button, and an HTML <span> element. Create an event procedure for the button |
| 9 | 10-Sep-18 | Develop a web application to read the details of the selected country stored in XML database and display back to the user using Web controls |
|  | 11-Sep-18 | WAP to add and fetch data in check box list. |
| 10 | 17-Sep-18 | Create a grid view. |
|  | 18-Sep-18 | Create an application to navigate from one page to other. |
| 11 | 24-Sep-18 | Implement database connectivity. |
|  | 25-Sep-18 | WAP to implement templates. |
| 12 | 1-Oct-18 | WAP to implement ListBox. |
|  | 2-Oct-18 | Mahatma gandhi’s jayanti |
| 13 | 10-Oct-18 | Maharaja aggarsen jayanti |
|  | 11-Oct-18 | Master Pages in dot net |
| 14 | 22-Oct-18 | Sessions in dot net |
|  | 23-Oct-18 | Cookies in dot net |
| 15 | 05-Nov-18 | Revision |

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| **Week** | **Date** | **B.Voc(Software Development) (IIIrd Sem)**  **Paper: BVSD-35, Data Structure** |
| 1 | 18-July-18 | Write a program to search an element from array using linear search and print its location |
| 2 | 25-July-18 | Write a program to search an element from array using binary search and print its location |
| 3 | 01-Aug-18 | Write a program to insert elements in array at desired location |
| 4 | 08-Aug-18 | Write a menu driven program to perform following operations on two dimensional array:   1. Addition 2. Subtraction 3. Multiplication 4. Transpose |
| 5 | 15-Aug-18 | Independence day |
| 6 | 22-Aug-18 | Id-ul-zuha(bakrid) |
| 7 | 29-Aug-18 | Write a program to sort an array using insertion sort  Write a program to sort an array using merge sort |
| 8. | 04-Sep-18 | Write a program to sort an array using bubble sort  Write a program to sort an array using selection sort |
| 9. | 11-Sep-18 | Write a menu driven program to perform following operations on entered string without using string function:   1. calculate length 2. reverse the string   find out whether the string is palindrome or not |
| 10. | 18-Sep-18 | Write a program to enter two strings and concatenate them  Write a program to find substring from the entered string |
| 11 | 25-Sep-18 | Write a menu driven program to insert an element in linked list:   1. at starting node 2. at the ending node   at a specific node |
| 12 | 03-Oct-18 | Write a menu driven program to delete an element from linked list:   1. from starting node 2. from ending node   from specific location |
| 13 | 10-Oct-18 | Maharaja aggarsen jayanti |
| 14 | 17-Oct-18 | 1. Write a program to implement stack using array 2. Write a program to implement stack using linked list |
| 15 | 24-Oct-18 | Maharishi valmiki’s birthday |
| 16 | 31-Oct-18 | 1. Write a program to implement queue using array 2. Write a program to implement queue using linked list |
| **Week** | **Date** | **B.Voc(Software Development) (IIIrd Sem)**  **Paper: BVSD-35, Data Structure** |
| 1 | 18-July-18 | Write a program to search an element from array using linear search and print its location |
| 2 | 25-July-18 | Write a program to search an element from array using binary search and print its location |
| 3 | 01-Aug-18 | Write a program to insert elements in array at desired location |
| 4 | 08-Aug-18 | Write a menu driven program to perform following operations on two dimensional array:   1. Addition 2. Subtraction 3. Multiplication 4. Transpose |
| 5 | 15-Aug-18 | Independence day |
| 6 | 22-Aug-18 | Id-ul-zuha(bakrid) |
| 7 | 29-Aug-18 | Write a program to sort an array using insertion sort  Write a program to sort an array using merge sort |
| 8. | 04-Sep-18 | Write a program to sort an array using bubble sort  Write a program to sort an array using selection sort |
| 9. | 11-Sep-18 | Write a menu driven program to perform following operations on entered string without using string function:   1. calculate length 2. reverse the string   find out whether the string is palindrome or not |
| 10. | 18-Sep-18 | Write a program to enter two strings and concatenate them  Write a program to find substring from the entered string |
| 11 | 25-Sep-18 | Write a menu driven program to insert an element in linked list:   1. at starting node 2. at the ending node   at a specific node |
| 12 | 03-Oct-18 | Write a menu driven program to delete an element from linked list:   1. from starting node 2. from ending node   from specific location |
| 13 | 10-Oct-18 | Maharaja aggarsen jayanti |
| 14 | 17-Oct-18 | 1. Write a program to implement stack using array 2. Write a program to implement stack using linked list |
| 15 | 24-Oct-18 | Maharishi valmiki’s birthday |
| 16 | 31-Oct-18 | 1. Write a program to implement queue using array 2. Write a program to implement queue using linked list |