

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Sakshi Aneja

Subject- Computer Science

BCA-352 (Operating System-I)

Class- BCA 5th Sem

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Operating System: Definition, Characteristics, Components, Functions.<br>Examples; Types of Operating System: Single User, Multi User   |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Classification of Operating System: Batch, Multiprogrammed, Timesharing, Multiprocessing, Parallel, Distributed, Real Time; System Calls and System Programs Process Control,             |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Revision and Tests of Unit I  |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Process Management: Process concept, Process states and Process Control Block; Process Scheduling   |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>  |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Scheduling Queues, Schedulers, Context Switch; Operation on Processes: Process Creation, Process Termination; Cooperating Processes, Introduction to Threads, Inter-process Communication |
| 30 Sept, 2022  | <b>Talent show</b>  |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022  | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | CPU Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms: FCFS, SJF, Priority, Round-Robin, Multilevel Queue, Multilevel Feedback Queue Scheduling                      |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Deadlocks: System Model, Deadlock Characterization, Methods of Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery                               |

Name of the Teacher – Ms. Sakshi Aneja

Subject- Computer Science

BCA-352 (Operating System-I)

Class- BCA 5th Sem

|   |   |
|---|---|
| 13 Oct, 2022<br>16 Oct,2022                           | <b>Karwa Chauth<br/>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct               | Memory Management: Introduction, Swapping, Contiguous Allocation: Single-Partition/Multiple Partition Allocation, External/Internal Fragmentation |
| 22 Oct - 26 Oct                                       | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct               | Segmentation: Basic Method, Hardware, Implementation of Segment Table, Advantages/Disadvantages of Paging/Segmentation                            |
| 30 Oct, 2022  | <b>Sunday</b>   |
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Virtual Memory: Introduction, Demand Paging   |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Page Replacement, Page Replacement Algorithms: FIFO, Optimal  |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti<br/>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | LRU, Counting; Thrashing and its cause; File Types, File Access/Allocation Methods, File Protection, File Recovery                                |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | File Management: File Concepts, File Attributes, File Operations,<br>Revision of Previous Syllabus  |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Discussion of Previous Year Question Papers   |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | <b>University Examination</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester

(November 2022- January 2023)

Name of the Teacher – SAKSHI ANEJA

Class- M.Sc. First year

Subject- SOFTWARE ENGINEERING

Paper- MS-15-13

|   |   |
|---|---|
| November, 2022<br>6 Nov, 2022           | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov  | Introduction: Software Crisis-problem and causes, Software Processes, Software life cycle models: Waterfall, Prototype, Evolutionary and Spiral models, Quality Standards like ISO 9001   |
| 8 Nov,2022<br>13 Nov, 2022              | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov | SEI-CMM, CMMI, PCMM, Six Sigma. Software Metrics: Size Metrics like LOC, Token Count, Function Count, Design Metrics, Data Structure Metrics, Information Flow Metrics, cyclomatic complexity, Halstead Complexity measures,                                  |
| 20 Nov, 2022                            | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov | Software Project Planning: Cost estimation, static, Single and multivariate models, COCOMO model, Putnam Resource Allocation Model, Risk management, project scheduling, personnel planning,  |
| 27 Nov, 2022                            | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec  | Team structure, Software configuration management, quality assurance, project monitoring. Software Requirement Analysis and Specifications: Structured Analysis, Data Flow Diagrams, Data Dictionaries, Entity-Relationship diagrams,                         |
| 4 Dec, 2022                             | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec  | Software Requirement and Specifications, Behavioral and non-behavioral requirements. Software Design: Design fundamentals, problem partitioning and abstraction, design methodology, Cohesion & Coupling, Function Oriented Design and User Interface Design. |
| 11 Dec, 2022                            | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12-17 Dec,2022  | Coding: Programming style, structured programming. Software reliability: Metric and specification, Musa and JM reliability model, fault avoidance and tolerance,  |
| 18 Dec, 2022                            | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19-24 Dec,2022  | Exception handling, defensive programming. Software Testing: Functional testing: Boundary Value Analysis, Equivalence class testing,  |
| 25 Dec, 2022                            | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>26-31 Dec,2022  | Cause effect graphing, Structural testing: Control flow based and data flow based testing, loop testing, mutation testing, load stress and performance testing,   |
| 29 Dec,2022                             | <b>Guru Gobind Singh Jayanti</b>  |
| 1 Jan, 2023                             | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>2-7 Jan, 2023   | Software testing strategies: unit testing, integration testing, System testing, Alpha and Beta testing, debugging. Static Testing: Formal Technical Reviews, Walk Through,  |
| 8 Jan, 2023                             | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>8-14 Jan, 2023  | Software Maintenance: Types of Maintenance, Maintenance Process, Maintenance characteristics, Reverse Engineering, Software Re-engineering.   |
| 15 Jan, 2023                            | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>16-21 Jan, 2023 | Code Inspection , Previous Years question paper discussed   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – NEHA SHARMA

Class- BCA

Subject- Web Designing Fundamentals

Paper- BCA-351

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction to Internet and World Wide Web; Evolution and History ,<br>ways to connect to Internet, Applications of Internet   |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Newsgroup/UseNet, World Wide Web, Basic Features; Web Browsers,<br>Client-Server model used by WWW,                             |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Web Servers; Hypertext Transfer Protocol; URLs; Searching and Web-<br>Casting Techniques;                                       |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Search Engines and Search Tools   |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>                    |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Steps for Developing Website; Choosing the Contents; Home Page;   |
| 30 Sept, 2022  | <b>Talent show</b>  |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022  | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | Domain Names; Internet Service Provider; Planning and Designing Web Site;   |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Creating a Website; Web Publishing: Hosting Site  |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Introduction to HTML; Hypertext and HTML; HTML Document<br>Features; HTML Tags; Header, Title, Body, Paragraph                  |
| 22 Oct - 26 Oct  | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct                  | Ordered/Unordered Line, Creating Links; Headers; Text Styles; Text<br>Structuring; Text Colors and Background; Formatting Text; |
| 30 Oct, 2022   | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – NEHA SHARMA

Class- BCA

Subject- Web Designing Fundamentals

Paper- BCA-351

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Page layouts; Insertion of Text, Movement of Text<br>Images: Types of Images, Insertion of Image, Movement of Image,<br>Ordered and Unordered lists; |
| 6 Nov, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Inserting Graphics; Table Handling Functions like Columns, Rows,<br>Width, Colours   |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday   |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Frame Creation and Layouts; Working with Forms and Communication<br>between Frames   |
| 20 Nov, 2022  | Sunday   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Menus; Working with Buttons like Radio, Check Box;   |
| 27 Nov, 2022  | Sunday   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams  |
| 4 Dec, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Previous year Question Papers Discussed<br>Problems taken from students  |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (November 2022- January 2023)

Name of the Teacher – NEHA SHARMA

Class- M.Sc. First year

Subject- Discrete Mathematics Structure

Paper- MS-15-14

|   |   |
|---|---|
| November, 2022<br>6 Nov, 2022           | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov  | Set Theory: Basic Set Theory, Operations on Sets, Algebra of sets, Venn Diagrams.<br>Relations: Binary Relations,   |
| 8 Nov,2022<br>13 Nov, 2022              | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov | Complement of relations, Inverse of relations, Composite relations, Properties, Equivalence, Partial Order and Total order relations.<br>Functions: Functions on Set, Domain, Co-domain,                        |
| 20 Nov, 2022                            | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov | Representation of Functions, Types Identity and Inverse Functions, Composition of Functions. Propositional Calculus: Propositional logic, Equivalences, Predicates , Quantifiers, Nested Quantifiers,           |
| 27 Nov, 2022                            | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec  | Rules of Inference, Normal Forms, Proofs: Methods, Strategy.Counting: Pigeonhole Principle, Inclusion-Exclusion Principle,  |
| 4 Dec, 2022                             | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec  | Permutations and Combinations, Binomial Coefficients, Counting Principles.  |
| 11 Dec, 2022                            | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12-17 Dec,2022  | Advanced Counting Techniques: Recurrence Relations, Solving Recurrence Relations, Divide and Conquer Algorithms and Recurrence Relations, Solution of Recurrence Relations by the method of Generating Function |
| 18 Dec, 2022                            | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19-24 Dec,2022  | <b>Problems taken from Unit-1,3 &amp; 3 from students</b><br>Lattices and boolean algebra: Lattices, Hasse Diagram, Principle of Duality, Types of Lattices, Special Lattices,.                                 |
| 25 Dec, 2022                            | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>26-31 Dec,2022  | Boolean Expression, Equivalent circuits, Dual, Normal Forms Graphs: Introduction, Terminology, Types of Graphs, Representation of Graphs, Paths and Circuits,   |
| 29 Dec,2022                             | <b>Guru Gobind Singh Jayanti</b>  |
| 1 Jan, 2023                             | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>2-7 Jan, 2023   | Cut-set and Cut - Vertices, Graph Isomorphism, Homomorphism, Connectivity, Bipartite Graphs, Subgraphs, Operations on Graphs,   |
| 8 Jan, 2023                             | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>8-14 Jan, 2023  | Euler and Hamiltonian Graphs, Shortest Path Problem, Planar & Dual Graphs, Coloring. Tree: Tree Notations, Properties of tree, Types of Tree ,Operations,   |
| 15 Jan, 2023                            | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>16-21 Jan, 2023 | Minimum Spanning Tree (MST). Previous Years question paper discussed  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Harbinder Kaur

Subject- Computer Science

Paper- Artificial Intelligence

Class- BCA 5<sup>th</sup> Sem.

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Artificial Intelligence, Intelligence, AI concepts, Various definitions of AI, Knowledge, Knowledge pyramid  |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | People and Computers :What Computer can do better than people, What people can do better than computers.<br>Characteristics of AI problems, Problems Representation in AI ,Components of AI,AI evolution, Application of AI, History of AI |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | The Turing test, The Revised Turing Test.<br>Expert system: Components of Expert System, Knowledge Base, Inference Engine, User Interface, Features of Expert System,  |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Expert System Life cycle. Categories of Expert System, Rule Based vs Model Based Expert System. Advantages and Limitations of Expert System.   |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>   |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Developing an Expert System, Identification, conceptualization.<br>Formalization , Implementation, testing, using an expert system , Application area of expert systems.   |
| 30 Sept, 2022  | <b>Talent show</b>   |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022  | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | AI and Search process: Brute Force Search-Depth/Breadth First Search, Heuristic Search: Hill Climbing ,Constraint Satisfaction.  |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | 8-Puzzle and 15-Puzzle Problem with Heuristic and non-Heuristic Search Technique.  |

**Name of the Teacher – Ms. Harbinder Kaur**  
**Subject- Computer Science**  
**Paper- Artificial Intelligence**  
**Class- BCA 5<sup>th</sup> Sem.**

|   |   |
|---|---|
| 13 Oct, 2022<br>16 Oct, 2022                          | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct               | Natural Language Processing: Introduction, Need.  |
| 22 Oct - 26 Oct                                       | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct               | Goals of Natural Language Processing, Fundamental Problems in Natural Language Processing.                    |
| 30 Oct, 2022  | <b>Sunday</b>   |
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | How people overcome Natural Language Processing , Introduction of Speech Recognition, Advantages ,Approaches. |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Introduction to Robotics, Parts of Robot, Controlling a Robot, Intelligent Robots, Mobile Robots.             |
| 8 Nov, 2022<br>13 Nov, 2022                           | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Console I/O: Hierarchy of Console Stream Classes, Unformatted and Formatted I/O Operations.                   |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Test Series on Different Topics   |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Discussion of Previous Year Question Papers   |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | <b>University Examination</b>   |



# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Harbinder Kaur

Subject- Computer Science

Paper- BCA-231 (Object Oriented Programming using C++)

Class- BCA 3<sup>rd</sup> Sem.

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Functions and their types , difference between Call By Value, Call By Reference and Call by Address  |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | What is Object Oriented Programming & How it differs from C.<br>Object oriented Programming: Object-Oriented programming features and benefits. Object-Oriented features of C++, Class and Objects, Data Hiding & Encapsulation. |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Structures, Data members and Member functions, types of Member function declaration. Scope resolution operator and its significance.   |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Static Data Members, Static member functions, Nested and Local Class, Accessing Members of Class and Structure.<br>Constructor, Initialization using constructor, Types of Constructor–  |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>   |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Default, Parameterized & Copy Constructors, Constructor overloading, Default Values to Parameters, Destructors.<br><br>Revision of Topics and Test   |
| 30 Sept, 2022  | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Harbinder Kaur

Subject- Computer Science

Paper- BCA-231 (Object Oriented Programming using C++ )

Class- BCA 3<sup>rd</sup> Sem

|   |   |
|---|---|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022   | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct               | Various programs of Static members and Constructor.<br>Polymorphism: Operators in C++, Precedence and Associativity Rules,<br>Operator Overloading, Unary & Binary Operators Overloading. |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct             | Function Overloading, Inline Functions<br>Group Discussion and Tests<br>Manipulators  |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct             | Friend Function, Friend Class and its programming.<br>Array of Objects, Passing and Returning Objects to Functions.   |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct             | String Handling in C++. Dynamic Memory Management.<br>Pointers and its types  |
| 30 Oct, 2022  | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Harbinder Kaur

Subject- Computer Science

Paper- BCA-231 (Object Oriented Programming using C++ )

Class- BCA 3<sup>rd</sup> Sem

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | New and Delete Operator, Array of Pointers to Objects<br>This Pointer, how to use pointer in array and functions as parameter or as return type. |
| 6 Nov, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Passing Parameters to Functions by Reference & pointers.<br>Discuss important topics for Exam  |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Console I/O: Hierarchy of Console Stream Classes, Unformatted and Formatted I/O Operations.  |
| 20 Nov, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | <b>Discuss various program of Pointer and references</b>   |
| 27 Nov, 2022  | <b>Sunday</b>  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>   |
| 4 Dec, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Discussion of Previous Year Question Papers  |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | <b>University Examination</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester

(November 2022- January 2023)

Name of the Teacher – HARBINDER KAUR

Class- M.Sc. First year

Subject- DATA STRUCTURE & ALGORITHMS

Paper- MS-15-12

|   |   |
|---|---|
| November, 2022<br>6 Nov, 2022           | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov  | Introduction to Data Structures: Classification of Data Structures, Arrays, Stacks & Queues: Representation of Stacks, Operations, Applications, Queues, Queues Operations  |
| 8 Nov,2022<br>13 Nov, 2022              | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov | Circular Queues, Dequeue, Priority Queues, Applications. Linked Lists: Introduction, Types, Operations (Insertion, Deletion, Traversal, Searching, Sorting), Applications, Dynamic Memory Management, Implementation of Linked Representations. |
| 20 Nov, 2022                            | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov | Trees: Definition, Representation of Trees, Types of Tree, Representation of Binary Trees, Binary Tree Traversals, Threaded Binary Trees, Binary Search Trees and Operations,   |
| 27 Nov, 2022                            | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec  | Minimum Spanning Tree, AVL Trees, Heap, m-way Search Trees, B-Trees, B+ Trees, Applications, Advanced Trees: Introduction to 2-3 Tree, Redblack Tree, Splay Trees. Graphs: Definitions and Basic Terminologies, Representation of Graphs,       |
| 4 Dec, 2022                             | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec  | Graph Traversals, Shortest Path Problem, Applications, Introduction to Algorithms: Role of algorithms in computing, Complexity of algorithms, Analyzing algorithms, designing algorithms, asymptotic notations.                                 |
| 11 Dec, 2022                            | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12-17 Dec,2022  | Divide and Conquer: Complexity of iterative programs and recursive programs, solving recurrence equations: back substitution method, recursion tree method, masters theorem. Analysis of heap sort and quick sort;                              |
| 18 Dec, 2022                            | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19-24 Dec,2022  | Counting sort, Radix sort, Bucket sort, Lower bounds for sorting.Dynamic Programming (DP): Elements of DP, Matrix chain multiplication, Longest common subsequence, optimal binary search trees.  |
| 25 Dec, 2022                            | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>26-31 Dec,2022  | Greedy Techniques (GT): Elements of GT, Activity selection problem, Huffman codes, Knapsack Problem. Graph Algorithms: Single source shortest path:.  |
| 29 Dec,2022                             | <b>Guru Gobind Singh Jayanti</b>  |
| 1 Jan, 2023                             | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>2-7 Jan, 2023   | Analysis of Dijkstra's Algorithm, Limitations of Dijkstra's Algorithm, Negative weight cycle, Bellman-Ford algorithm  |
| 8 Jan, 2023                             | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>8-14 Jan, 2023  | All Pairs Shortest Path: Relation of Shortest path and matrix multiplication, Analysis of Floyd Warshall algorithm. Maximum Flow: Flow network, Ford- Fulkerson method.   |
| 15 Jan, 2023                            | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>16-21 Jan, 2023 | Computational complexity: Notion of Polynomial time algorithms, Complexity classes: P, NP, NP-Hard and NPComplete, Polynomial time verification, Reducibility, NP-Completeness.   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Divya Vij

Class- M.Sc. II Computer Science (3<sup>rd</sup> Semester)

Subject- Computers

Paper- OBJECT ORIENTED ANALYSIS AND DESIGN USING UML (MS-15-31)

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Modeling as a Design Technique: Abstraction, Encapsulation, Modularity.  |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Hierarchy, Typing, Concurrency, Persistence of objects. Purpose of modeling.   |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Class Model – Object & Class, Links & Associations, Generalization & Inheritance.  |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Association Ends, Multiplicity, Role names, Ordering, Qualification, Aggregation.  |
| 23 Sept, 2022  | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b>   |
| 25 Sept, 2022  | <b>Sunday</b>  |
| 26 Sept, 2022  | <b>Maharana Agrasen Jayanti</b>  |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Link attributes & Link class, Abstract class, Metadata, Constraints. Constructing class diagram.   |
| 30 Sept, 2022  | <b>Talent show</b>   |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct, 2022     | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022  | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | State Modeling: Event, State, Activity, Action, Transitions & Conditions, State diagrams, Nested state diagrams, signal generalization, concurrency, relationships between class and state models. |
| 5 Oct, 2022  | <b>Dussehra</b>  |
| 9 Oct, 2022  | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Interaction Modeling: use case models, use case relationships, sequence models, procedural sequence models, activity models, special constructs for activity models.                               |
| 13 Oct, 2022   | <b>Karwa Chauth</b>  |
| 16 Oct, 2022   | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | System Analysis & design: System development stages, system conception, analysis, domain class model, domain state model, iterating the analysis.  |
| 22 Oct - 26 Oct  | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct                  | Application interaction model, application class model, application state model, adding operations.  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Divya Vij

Class- M.Sc. II Computer Science (3<sup>rd</sup> Semester)

Subject- Computers

Paper- OBJECT ORIENTED ANALYSIS AND DESIGN USING UML (MS-15-31)

|   |   |
|---|---|
| 30 Oct, 2022  | <b>Sunday</b>   |
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | System Design: estimating performance, make a reuse plan, organize the system into subsystem, identifying concurrency, allocating subsystems to processors and tasks, management of data stores   |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Handling global resources, choosing software control strategies, handling boundary conditions, setting trade-off priorities, selecting an architect style.  |
| 8 Nov, 2022<br>13 Nov, 2022                           | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Class Design: bridging gap, realize use cases with operations, designing algorithms, design optimization, adjustment of inheritance, organize classes & associations.   |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | UML: Principles of modeling, UML Things – Structural, Behavioral, Grouping, Annotational. Relationships in UML – Dependency, Association, Generalization, Realization.<br>UML Semantic Rules – Names, Scope, Visibility, Integrity, Execution.<br>Mechanisms in the UML – Specifications, Adornments, Common Divisions, Extensibility Mechanisms. |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Overview of diagrams in UML – Class diagram, Object diagram, Use-Case diagram, Sequence diagram, Collaboration diagram, Statechart diagram, Activity diagram, Component diagram, Deployment diagram.  |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | <b>University Examination</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Divya Vij

Class- BCA II (3<sup>rd</sup> Semester)

Subject- Computers

Paper- Fundamentals of Data Base System (BCA-235)

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Basic Concepts – Data, Information, Records and files. Traditional file – based Systems-File Based Approach. |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Limitations of File Based Approach, Database Approach-Characteristics of Database Approach                   |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components.            |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Advantages and Disadvantages of DBMS, Roles in the Database Environment - Data and Database Administrator    |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b> |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Database Designers, Applications Developers and Users.   |
| 30 Sept, 2022  | <b>Talent show</b>   |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022  | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels        |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Schemas, Mappings and Instances, Data Independence – Logical and Physical Data Independence                  |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Classification of Database Management System   |
| 22 Oct - 26 Oct  | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct                  | Client Server architecture to DBMS.  |
| 30 Oct, 2022   | <b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Divya Vij

Class- BCA II (3<sup>rd</sup> Semester)

Subject- Computers

Paper- Fundamentals of Data Base System (BCA-235)

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Data Models: Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling, Entity-Relationship Model. |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Physical Data Models and Conceptual Modeling, Entity-Relationship Model, Relationship Instances and ER Diagrams.                            |
| 8 Nov, 2022<br>13 Nov, 2022                           | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Relational Data Model:-Brief History, Terminology in Relational Data Structure, Relations, Properties of Relations.                         |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Keys, Domains, Integrity Constraints over Relations, Base Tables and Views.   |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Basic Concepts of Hierarchical and Network Data Model.  |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | <b>University Examination</b>   |



# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Divya Vij

Class- BCA III (5<sup>th</sup> Semester)

Subject- Computers

Paper- Programming using Visual Basic (BCA-355)

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction to VB: Visual & Non-Visual programming, Procedural, Object-Oriented Language   |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Object-Based and Event-Driven Programming Languages, VB as Event Driven and Object-Based Language.  |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | VB Environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties Window, Form Designer, Form Layout, Immediate window                 |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Default Controls in Tool Box Visual Development and Event Driven programming  |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>                                  |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Basics of Programming: Variables: Declaring Variables, Types of variables, Converting Variables Types, User Defined Data Types.               |
| 30 Sept, 2022  | <b>Talent show</b>  |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022  | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | Forcing Variable Declaration, Scope & Lifetime of Variables, Constants: Named & Intrinsic.  |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Operators: Arithmetic, Relational & Logical operators, Input/output in VB: Various Controls for I/O, Message box, Input Box, Print statement. |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Decision Statements in VB - if statement, if-then-else, select-case.  |
| 22 Oct - 26 Oct  | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct                  | Looping Statements in VB: do-loop, for-next, while-wend; Exit statement.  |
| 30 Oct, 2022   | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Divya Vij

Class- BCA III (5<sup>th</sup> Semester)

Subject- Computers

Paper- Programming using Visual Basic (BCA-355)

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Nested Control Structure; Arrays: Declaring and using Arrays, One-dimensional.  |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Two-dimensional and Multi-dimensional Arrays, Static and Dynamic arrays, Array of Arrays.   |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Procedures: General & Event Procedures, Subroutines, Functions, Calling Procedures, Arguments - Passing Mechanisms, Optional Arguments, Named Arguments, Functions Returning Custom Data Types. |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Simple Program Development in VB such as Sum of Numbers, Greatest among Numbers, Checking Even/Odd Number, HCF of Two Numbers,  |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Generate Prime Numbers, Generate Fibonacci Series, Factorial of a Number, Searching, Sorting, etc.  |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | <b>University Examination</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- BCA-I (Semester-I)  
Subject- Computers  
Paper- BCA-112(Windows and PC Software)

|  |  |
|--|--|
| <b>September, 2022</b><br><b>1<sup>st</sup> Week</b><br><b>1 Sept-3 Sept</b> | Introduction to Windows and its Features, Hardware Requirements of Windows.                                  |
| <b>4 Sept, 2022</b>  | <b>Sunday</b>  |
| <b>2<sup>nd</sup> Week</b><br><b>5 Sept- 10 Sept</b>                         | Windows Concepts, Windows Structure, Desktop, Taskbar, Start Menu  |
| <b>11 Sept, 2022</b>   | <b>Sunday</b>  |
| <b>3<sup>rd</sup> Week</b><br><b>12 Sept-17 Sept</b>                         | My Pictures, My Music, My Documents, Recycle Bin. Managing Files, Folders and Disk .                         |
| <b>18 Sept, 2022</b>   | <b>Sunday</b>  |
| <b>4<sup>th</sup> Week</b><br><b>19 Sept-24 Sept</b>                         | My Computer, Windows Explorer and its Facilities, Using CD, DVD, Pen Drive, Burning CD.                      |
| <b>23 Sept,2022</b><br><b>25 Sept, 2022</b><br><b>26 Sept, 2022</b>          | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b> |
| <b>5<sup>th</sup> Week</b><br><b>27 Sept - 29 Sept</b>                       | Windows Accessories. Entertainment- Media Players, Sound Recorder, Volume Control.                           |
| <b>30 Sept, 2022</b>   | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja

Class- BCA-I (Semester-I)

Subject- Computers

Paper- BCA-112(Windows and PC Software)

|   |   |
|---|---|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022   | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct               | Managing Hardware & Software - Installation of Hardware & Software, Using Scanner, WebCamera, Printers. System Tools - Backup, Character Map, Clipboard Viewer, Disk Defragmenter, Drive Space, Scandisk, System Information, System Monitor, Disk Cleanup, |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra<br/>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct             | Using Windows Update. Browsing the Web with Internet Explorer, Multiple User Features of Windows, Creating and Deleting User, Changing User Password, etc.  |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth<br/>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct             | Accessibility Features of Windows - Sharing Folders and Drives, Browsing the Entire Network, Using Shared Printers. Control Panel & its components  |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct             | Introduction and area of use, Working with Excel, Toolbars, Menus and Keyboard Shortcuts, concepts of Workbook & Worksheets, Using Wizards,   |
| 30 Oct, 2022  | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- BCA-I (Semester-I)  
Subject- Computers  
Paper- BCA-112(Windows and PC Software)

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day   |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Various Data Types, Using different features with Data, Cell and Texts, Inserting, Removing & Resizing of Columns & Rows, Working with Data & Ranges, Different Views of Worksheets, Column Freezing, Labels, Hiding, Splitting etc., |
| 6 Nov, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Using different features with Data and Text, Cell Formatting including Borders & Shading.   |
| 8 Nov, 2022<br>13 Nov, 2022                           | Sh. Guru Nanak Dev jayanti<br>Sunday  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Multiple Worksheets: Concept, Creating and Using Multiple Worksheets; Use of Formulas, Calculations & Functions, Various types of Functions, Cell Referencing, Absolute and Relative Addressing,                                      |
| 20 Nov, 2022  | Sunday  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Working with Different Chart Types, Chart Wizard, Printing of Workbook & Worksheets with various options  |
| 27 Nov, 2022  | Sunday  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams   |
| 4 Dec, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Database: Creation, Sorting, Query and Filtering a Database; Creating and Using Macros; Pivot table & Pivot chart   |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | University Examination  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- B.Sc.I(Semester-I) Computer Science  
Subject- Computers  
Paper- I (Computer and Programming Fundamentals)

|   |  |
|---|--|
| September, 2022<br>2 <sup>nd</sup> Week<br>5 Sept- 7 Sept | Computer Fundamentals: Definition, Functional components of computer,  |
| 11 Sept, 2022   | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-14 Sept                   | characteristics & classification of computers, Applications of computers in various fields.                        |
| 18 Sept, 2022   | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-21 Sept                   | Memory: Concept of primary & secondary memory, RAM, ROM, types of ROM, Cache memory, CPU Registers, flash memory,. |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022            | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>       |
| 5 <sup>th</sup> Week<br>26 Sept - 28 Sept                 | Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, CD, DVD           |
| 30 Sept, 2022   | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja

Class- B.Sc I(Semester-I) Computer Science

Subject- Computers

Paper- I (Computer and Programming Fundamentals)

|   |   |
|---|---|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022   | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct – 5 Oct               | Computer hardware & software: I/O devices, definition of software, relationship between hardware and software, types of software, motherboard, ports.   |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra<br/>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 12 Oct             | Overview of operating system: Definition, functions of operating system, concept of multiprogramming, multitasking, multithreading, multiprocessing, time-sharing, real time, single-user& multi-user operating system, examples of various operating systems |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth<br/>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct – 19 Oct             | Planning the Computer Program: Concept of problem solving, Problem definition, Program design,  |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>31 Oct,2022                 | Debugging, Types of errors in programming, Documentation.   |
| 30 Oct, 2022  | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- B.Sc I(Semester-I) Computer Science  
Subject- Computers  
Paper- I (Computer and Programming Fundamentals)

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day  |
| 1 <sup>st</sup> Week<br>2 Nov, 2022                   | Techniques of Problem Solving: Flowcharting, algorithms, pseudo code   |
| 6 Nov, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>7 Nov – 9 Nov                 | decision table, Structured programming concepts, Programming methodologies viz. top-down and bottomup programming. |
| 8 Nov, 2022<br>13 Nov, 2022                           | Sh. Guru Nanak Dev jayanti<br>Sunday   |
| 3 <sup>rd</sup> Week<br>14 Nov – 16 Nov               | Searching, Sorting, and Merging: Linear & Binary Searching, Bubble, Selection, and Insertion Sorting, Merging.     |
| 20 Nov, 2022  | Sunday   |
| 4 <sup>th</sup> Week<br>21 Nov - 23 Nov               | Computer Languages: Analogy with natural language, machine language, assembly language,                            |
| 27 Nov, 2022  | Sunday   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams  |
| 4 Dec, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>5 Dec – 7 Dec                 | high-level language, language translators, characteristics of a good programming language                          |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | University Examination   |



# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- B.Sc. I(Semester-I) Computer Science  
Subject- Computers  
Paper- II (PC Software)

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Windows: Basics of Windows. Windows History, Basic components of windows, icons,   |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>8 Sept- 10 Sept                  | types of icons, taskbar, activating windows, using desktop, title bar, running applications, Windows explorer, managing files and folders, Configuring System devices. |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>15 Sept-17 Sept                  | Control panel ,using windows accessories.  |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>22 Sept-24 Sept                  | Documentation Using Word - Introduction to Office Automation, Creating & Editing Document, Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool,     |
| 23 Sept, 2022<br>25 Sept, 2022<br>26 Sept, 2022          | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>   |
| 5 <sup>th</sup> Week<br>29 Sept - 30 Sept                | Document Dictionary, Page Formatting, Bookmark, Advance Features of MS-Word-Mail Merge,  |
| 30 Sept, 2022  | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- B.Sc.I(Semester-I) Computer Science  
Subject- Computers  
Paper- II (PC Software)

|   |   |
|---|---|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022   | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>6 Oct - 8 Oct               | Macros, Tables, File Management, Printing, Styles, linking and embedding object |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra<br/>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>13 Oct - 15 Oct             | Electronic Spread Sheet using Excel - Introduction to MS-Excel,                 |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth<br/>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>20 Oct - 21 Oct             | Creating & Editing Worksheet, Formatting and Essential Operations               |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 29 Oct             | Formulas and Functions, Charts,   |
| 30 Oct, 2022  | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- B.Sc. I(Semester-I) Computer Science  
Subject- Computers  
Paper- II (PC Software)

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day  |
| 1 <sup>st</sup> Week<br>3 Nov - 5 Nov                 | Advance features of MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation,                                 |
| 6 Nov, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>10 Nov – 12 Nov               | Database Management using Excel-Sorting, Filtering, Table, Validation, Goal Seek, Scenario                         |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday   |
| 3 <sup>rd</sup> Week<br>17 Nov - 19 Nov               | Presentation using PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides,                           |
| 20 Nov, 2022  | Sunday   |
| 4 <sup>th</sup> Week<br>24 Nov - 26 Nov               | Organizational Charts, Excel Charts, Word Art, Layering art Objects, Animations and Sounds,                        |
| 27 Nov, 2022  | Sunday   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams  |
| 4 Dec, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>8 Dec - 10 Dec                | Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect. |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja

Class- B.A.I(Semester-I) Computer Science

Subject- Computers

Paper- I (Computer and Programming Fundamentals)

|   |  |
|---|--|
| September, 2022<br>2 <sup>nd</sup> Week<br>5 Sept- 7 Sept | Computer Fundamentals: Definition, Functional components of computer,  |
| 11 Sept, 2022   | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-14 Sept                   | characteristics & classification of computers, Applications of computers in various fields.                        |
| 18 Sept, 2022   | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-21 Sept                   | Memory: Concept of primary & secondary memory, RAM, ROM, types of ROM, Cache memory, CPU Registers, flash memory,. |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022            | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>       |
| 5 <sup>th</sup> Week<br>26 Sept - 28 Sept                 | Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, CD, DVD           |
| 30 Sept, 2022   | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja

Class- B.A. I(Semester-I) Computer Science

Subject- Computers

Paper- I (Computer and Programming Fundamentals)

|   |   |
|---|---|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022   | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct – 5 Oct               | Computer hardware & software: I/O devices, definition of software, relationship between hardware and software, types of software, motherboard, ports.   |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra<br/>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 12 Oct             | Overview of operating system: Definition, functions of operating system, concept of multiprogramming, multitasking, multithreading, multiprocessing, time-sharing, real time, single-user& multi-user operating system, examples of various operating systems |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth<br/>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct – 19 Oct             | Planning the Computer Program: Concept of problem solving, Problem definition, Program design,  |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>31 Oct,2022                 | Debugging, Types of errors in programming, Documentation.   |
| 30 Oct, 2022  | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja

Class- B.A. I(Semester-I) Computer Science

Subject- Computers

Paper- I (Computer and Programming Fundamentals)

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day  |
| 1 <sup>st</sup> Week<br>2 Nov,2022                    | Techniques of Problem Solving: Flowcharting, algorithms, pseudo code   |
| 6 Nov, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>7 Nov – 9 Nov                 | decision table, Structured programming concepts, Programming methodologies viz. top-down and bottomup programming. |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday   |
| 3 <sup>rd</sup> Week<br>14 Nov – 16 Nov               | Searching, Sorting, and Merging: Linear & Binary Searching, Bubble, Selection, and Insertion Sorting, Merging.     |
| 20 Nov, 2022  | Sunday   |
| 4 <sup>th</sup> Week<br>21 Nov - 23 Nov               | Computer Languages: Analogy with natural language, machine language, assembly language,                            |
| 27 Nov, 2022  | Sunday   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams  |
| 4 Dec, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>5 Dec – 7 Dec                 | high-level language, language translators, characteristics of a good programming language                          |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- B.A. I(Semester-I) Computer Science  
Subject- Computers  
Paper- II (PC Software)

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Windows: Basics of Windows. Windows History, Basic components of windows, icons,   |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>8 Sept- 10 Sept                  | types of icons, taskbar, activating windows, using desktop, title bar, running applications, Windows explorer, managing files and folders, Configuring System devices. |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>15 Sept-17 Sept                  | Control panel ,using windows accessories.  |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>22 Sept-24 Sept                  | Documentation Using Word - Introduction to Office Automation, Creating & Editing Document, Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool,     |
| 23 Sept, 2022<br>25 Sept, 2022<br>26 Sept, 2022          | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>   |
| 5 <sup>th</sup> Week<br>29 Sept - 30 Sept                | Document Dictionary, Page Formatting, Bookmark, Advance Features of MS-Word-Mail Merge,  |
| 30 Sept, 2022  | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- B.A. I(Semester-I) Computer Science  
Subject- Computers  
Paper- II (PC Software)

|   |   |
|---|---|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022   | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>6 Oct - 8 Oct               | Macros, Tables, File Management, Printing, Styles, linking and embedding object |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra<br/>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>13 Oct - 15 Oct             | Electronic Spread Sheet using Excel - Introduction to MS-Excel,                 |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth<br/>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>20 Oct - 21 Oct             | Creating & Editing Worksheet, Formatting and Essential Operations               |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 29 Oct             | Formulas and Functions, Charts,   |
| 30 Oct, 2022  | <b>Sunday</b>   |



# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mamta Atreja  
Class- B.A. I(Semester-I) Computer Science  
Subject- Computers  
Paper- II (PC Software)

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day  |
| 1 <sup>st</sup> Week<br>3 Nov - 5 Nov                 | Advance features of MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation,                                 |
| 6 Nov, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>10 Nov – 12 Nov               | Database Management using Excel-Sorting, Filtering, Table, Validation, Goal Seek, Scenario                         |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday   |
| 3 <sup>rd</sup> Week<br>17 Nov - 19 Nov               | Presentation using PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides,                           |
| 20 Nov, 2022  | Sunday   |
| 4 <sup>th</sup> Week<br>24 Nov - 26 Nov               | Organizational Charts, Excel Charts, Word Art, Layering art Objects, Animations and Sounds,                        |
| 27 Nov, 2022  | Sunday   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams  |
| 4 Dec, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>8 Dec - 10 Dec                | Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect. |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Prashantika P Sanduja

Class- BCA I (1<sup>st</sup> Semester)

Subject- Logical Organization of Computers - I

Paper- BCA-114

|  |  |
|--|--|
| <b>September, 2022</b><br><b>1<sup>st</sup> Week</b><br><b>1 Sept-3 Sept</b> | Information Representation: Number Systems (Introduction)  |
| <b>4 Sept, 2022</b>  | <b>Sunday</b>  |
| <b>2<sup>nd</sup> Week</b><br><b>5 Sept- 10 Sept</b>                         | Information Representation: Number Systems (Decimal Number System, Binary Number System, Octal Number System, Hexadecimal Number System) |
| <b>11 Sept, 2022</b>   | <b>Sunday</b>  |
| <b>3<sup>rd</sup> Week</b><br><b>12 Sept-17 Sept</b>                         | Information Representation: Number Systems (Conversions between Number Systems), Binary Arithmetic – Binary Addition, Binary Subtraction |
| <b>18 Sept, 2022</b>   | <b>Sunday</b>  |
| <b>4<sup>th</sup> Week</b><br><b>19 Sept-24 Sept</b>                         | Binary Arithmetic – Binary Multiplication, Binary Division, Fixed-point and Floating point representation of numbers, BCD Codes          |
| <b>23 Sept,2022</b><br><b>25 Sept, 2022</b><br><b>26 Sept, 2022</b>          | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>                             |
| <b>5<sup>th</sup> Week</b><br><b>27 Sept - 29 Sept</b>                       | BCD Codes – BCD Addition, Error detecting and correcting codes, Character Representation – ASCII, EBCDIC                                 |
| <b>30 Sept, 2022</b>   | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Prashantika P Sanduja

Class- BCA I (1<sup>st</sup> Semester)

Subject- Logical Organization of Computers - I

Paper- BCA-114

|  |   |
|--|---|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022        | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022  | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                      | Digital Logic: Basic Gates – AND, OR, NOT, Universal Gates – NAND, NOR, Other Gates – XOR, XNOR   |
| 5 Oct,2022<br>9 Oct,2022                                   | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                    | Implementations of digital circuits, Combinational Logic –Characteristics, Design Procedures, Analysis Procedures   |
| 13 Oct, 2022<br>16 Oct,2022                                | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct<br>22 Oct - 26 Oct | Binary Logic: Boolean Algebra, Boolean Theorems, Boolean Functions and Truth Tables, Canonical and Standard forms of Boolean functions<br><b>Diwali Break</b> |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct<br>30 Oct, 2022    | Simplification of Boolean Functions –Venn Diagram, Karnaugh Maps.<br><b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Prashantika P Sanduja

Class- BCA I (1<sup>st</sup> Semester)

Subject- Logical Organization of Computers - I

Paper- BCA-114

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>   |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Test of Unit I, II & III   |
| 6 Nov, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Combinational Circuits: Half-Adder, Full-Adder, Half-Subtractor, Full-Subtractor |
| 8 Nov, 2022<br>13 Nov, 2022                           | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>                               |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Encoders, Decoders, Multiplexers, Demultiplexers, Comparators, Code Converters.  |
| 20 Nov, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Test of Unit IV  |
| 27 Nov, 2022  | <b>Sunday</b>  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>   |
| 4 Dec, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Revision of Whole Syllabus   |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | <b>University Examination</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Prashantika P Sanduja

Class- BCA II (3<sup>rd</sup> Semester)

Subject- Computer Architecture

Paper- BCA-233

|  |  |
|--|--|
| <b>September, 2022</b><br><b>1<sup>st</sup> Week</b><br><b>1 Sept-3 Sept</b> | Basic Computer Organisation and Design: Instruction Codes, Computer Registers, Computer Instructions         |
| <b>4 Sept, 2022</b>  | <b>Sunday</b>  |
| <b>2<sup>nd</sup> Week</b><br><b>5 Sept- 10 Sept</b>                         | Timing and Control, Instruction Cycle, Memory Reference Instructions, Input-Output and Interrupt             |
| <b>11 Sept, 2022</b>   | <b>Sunday</b>  |
| <b>3<sup>rd</sup> Week</b><br><b>12 Sept-17 Sept</b>                         | Design of Basic Computer, Design of Accumulator Logic  |
| <b>18 Sept, 2022</b>   | <b>Sunday</b>  |
| <b>4<sup>th</sup> Week</b><br><b>19 Sept-24 Sept</b>                         | Register Transfer and Microoperations: Register Transfer Language (RTL), Register Transfer                   |
| <b>23 Sept,2022</b><br><b>25 Sept, 2022</b><br><b>26 Sept, 2022</b>          | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b> |
| <b>5<sup>th</sup> Week</b><br><b>27 Sept - 29 Sept</b>                       | Bus and Memory Transfers, Arithmetic Microoperations   |
| <b>30 Sept, 2022</b>   | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Prashantika P Sanduja

Class- BCA II (3<sup>rd</sup> Semester)

Subject- Computer Architecture

Paper- BCA-233

|   |  |
|---|--|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022   | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct               | Logic Microoperations, Shift Microoperations, Arithmetic Logic Shift Unit, Microprogrammed Control: Control Memory; Address Sequencing, Microprogram Sequencer, Design of Control Unit |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra</b><br><b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct             | Central Processing Unit: General Registers Organization, Stack Organization, Instruction Formats, Addressing Modes   |
| 13 Oct, 2022<br>16 Oct, 2022                        | <b>Karwa Chauth</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct             | Data Transfer and Manipulation, Program Control, Program Interrupt, RISC, CISC.  |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct             | Memory Organization: Memory Hierarchy, Auxiliary Memory, Associative Memory, Interleaved Memory, Cache memory  |
| 30 Oct, 2022  | <b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Prashantika P Sanduja

Class- BCA II (3<sup>rd</sup> Semester)

Subject- Computer Architecture

Paper- BCA-233

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Virtual Memory, Memory Management Hardware  |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Input Output Organization : Peripheral devices , Input-Output Interface, Asynchronous Data Transfer |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Modes of Transfer, Priority Interrupt, Direct Memory Access (DMA), Input-Output Processor(IOP)      |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Test & Revision of Whole Syllabus   |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Test & Revision of Whole Syllabus   |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | <b>University Examination</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Prashantika P Sanduja

Class- M.Sc. CS II (3<sup>rd</sup> Semester)

Subject- Computer Networks

Paper- MS-15-33

|  |   |
|--|---|
| <b>September, 2022</b><br><b>1<sup>st</sup> Week</b><br><b>1 Sept-3 Sept</b> | Introduction to Computer Networks and its uses; Network categorization and Hardware; Topologies; Network Software: Protocols, Services, Network Architecture, Design issues for the layers, OSI Reference model, TCP/IP Reference model, Comparison of OSI and TCP/IP Models, |
| <b>4 Sept, 2022</b>  | <b>Sunday</b>   |
| <b>2<sup>nd</sup> Week</b><br><b>5 Sept- 10 Sept</b>                         | Introduction to Example Networks: Internet, ISDN, X.25, Frame Relay, ATM, Data Communication Model, Digital and Analog data and signals, Asynchronous and Synchronous transmission; bit rate, baud, bandwidth, Transmission impairment; Channel Capacity                      |
| <b>11 Sept, 2022</b>   | <b>Sunday</b>   |
| <b>3<sup>rd</sup> Week</b><br><b>12 Sept-17 Sept</b>                         | Switching; Multiplexing; Spread Spectrum; local loop; Modems and ADSL, Encoding: NRZ, NRZ-I, Manchester and Differential Manchester encoding, Internet over Cable; ADSL Versus Cable; The Mobile Telephone System   |
| <b>18 Sept, 2022</b>   | <b>Sunday</b>   |
| <b>4<sup>th</sup> Week</b><br><b>19 Sept-24 Sept</b>                         | Data Link Layer Design issues; Framing, Error Detection and Correction; Flow Control: Sliding Window Protocols; Medium Access Control: Aloha, CSMA protocols, Collision free protocols, Limited Contention Protocols,   |
| <b>23 Sept,2022</b><br><b>25 Sept, 2022</b><br><b>26 Sept, 2022</b>          | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>  |
| <b>5<sup>th</sup> Week</b><br><b>27 Sept - 29 Sept</b>                       | Wavelength Division Multiple access protocol, Wireless LAN Protocol: MACA; High Speed LANs, Ethernet LAN, Fast Ethernet, Gigabit Ethernet   |
| <b>30 Sept, 2022</b>   | <b>Talent show</b>  |



# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Prashantika P Sanduja

Class- M.Sc. CS II (3<sup>rd</sup> Semester)

Subject- Computer Networks

Paper- MS-15-33

|   |  |
|---|--|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022   | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct               | Binary Exponential Backoff algorithm; Token Ring and FDDI;<br>Introduction to Wireless LANs , Network Layer Design issues , Virtual<br>Circuit and Datagram Subnet, Routing Algorithms: Optimality principle |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra</b><br><b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct             | Shortest path Routing, Flooding, Distance Vector Routing, Link State<br>Routing, Hierarchical Routing, Broadcast and Multi Cast Routing, Routing<br>for Mobile hosts   |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct             | Congestion Control Algorithms: General Principals; Congestion control in<br>Virtual – Circuit Subnets  |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct             | Congestion Control in Datagram Subnets: Choke packets, Load Shedding,<br>Random Early Detection, Jitter Control  |
| 30 Oct, 2022  | <b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Prashantika P Sanduja

Class- M.Sc. CS II (3<sup>rd</sup> Semester)

Subject- Computer Networks

Paper- MS-15-33

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Quality of Service: Over provisioning, Buffering, Traffic Shaping, Leaky bucket, Token Bucket |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Resource Reservation, Admission Control, Packet Scheduling                                    |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Guided Transmission Media; Wireless Transmission, Satellite communication                     |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Test & Revision of Whole Syllabus   |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Test & Revision of Whole Syllabus   |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | <b>University Examination</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Tarjeet Kaur  
Class- B.Sc.III(Semester-V) Computer Science  
Subject- Computers  
Paper-I (Fundamentals of Data Base Systems)

|   |  |
|---|--|
| September, 2022<br>2 <sup>nd</sup> Week<br>5 Sept- 7 Sept | Basic Concepts – Data, Information, Records and files. Traditional file Based Approach                       |
| 11 Sept, 2022   | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-14 Sept                   | Limitations of Traditional File Based Approach Database Approach- Characteristics of Database Approach       |
| 18 Sept, 2022   | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-21 Sept                   | Database Management System (DBMS), Components of DBMS Environment  |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022            | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b> |
| 5 <sup>th</sup> Week<br>26 Sept - 28 Sept                 | DBMS Functions and Components, Advantages and Disadvantages of DBMS.   |
| 30 Sept, 2022   | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Tarjeet Kaur  
Class- B.Sc.III(Semester-V) Computer Science  
Subject- Computers  
Paper-I (Fundamentals of Data Base Systems)

|   |  |
|---|--|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022   | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct – 5 Oct               | Actors on the Scene - Data and Database Administrator, Database Designers, End users Applications Developers and Workers behind the Scene. |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra</b><br><b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 12 Oct             | Database System Architecture – Three Levels of Architecture, Schemas – External, Conceptual and Internal Level                             |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct – 19 Oct             | Database Languages – VDL, DDL, SDL, DML, SQL, Mappings – External/ Conceptual and Conceptual/Internal                                      |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>31 Oct,2022                 | Instances, Data Independence – Logical and Physical Data Independence  |
| 30 Oct, 2022  | <b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Tarjeet Kaur  
Class- B.Sc.III(Semester-V) Computer Science  
Subject- Computers  
Paper-I (Fundamentals of Data Base Systems)

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day  |
| 1 <sup>st</sup> Week<br>2 Nov,2022                    | Data Models: High Level, Low Level and Representational – Records-based Data Models, Object-based Data Models, Physical Data Models and Conceptual Models            |
| 6 Nov, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>7 Nov – 9 Nov                 | Entity-Relationship Model – Concepts, Entity Types, Entity Sets, Attributes, Relationships,  |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday   |
| 3 <sup>rd</sup> Week<br>14 Nov – 16 Nov               | Constraints, Keys , Degree, Cardinality etc  |
| 20 Nov, 2022  | Sunday   |
| 4 <sup>th</sup> Week<br>21 Nov - 23 Nov               | ER Diagrams of any Database Organization- Inventory System, Payroll System, Reservation System, Online Book Store etc.   |
| 27 Nov, 2022  | Sunday   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams  |
| 4 Dec, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>5 Dec – 7 Dec                 | Classification of Database Management System, Centralized and Client Server architecture Keys – Primary, Secondary, Composite, Candidate, Alternate and Foreign Key, |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Tarjeet Kaur  
Class- B.Sc.III(Semester-V) Computer Science  
Subject- Computers  
Paper-I (Fundamentals of Data Base Systems)

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic Features          |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>8 Sept- 10 Sept                  | Web Browsers; Web Servers; Hypertext Transfer Protocol; URLs  |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>15 Sept-17 Sept                  | Searching and WebCasting Techniques; Search Engines and Search Tools  |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>22 Sept-24 Sept                  | Steps for Developing Website; Choosing the Contents; Home Page; Domain Names                                  |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>  |
| 5 <sup>th</sup> Week<br>29 Sept - 30 Sept                | Internet Service Provider; Planning and Designing Web Site; Creating a Website; Web Publishing: Hosting Site; |
| 30 Sept, 2022  | <b>Talent show</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Tarjeet Kaur  
Class- B.Sc.III(Semester-V) Computer Science  
Subject- Computers  
Paper-II (Paper-II: Web Designing)

|   |  |
|---|--|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022   | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>6 Oct - 8 Oct               | Introduction to HTML; Hypertext and HTML; HTML Document Features;<br>HTML Tags; Header, Title, Body, Paragraph |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra<br/>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>13 Oct - 15 Oct             | Ordered/Unordered Line, Creating Links; Headers; Text Styles   |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth<br/>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>20 Oct - 21 Oct             | Text Structuring; Text Colors and Background   |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 29 Oct             | Formatting Text; Page layouts; Insertion of Text, Movement of Text   |
| 30 Oct, 2022  | <b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Tarjeet Kaur  
Class- B.Sc.III(Semester-V) Computer Science  
Subject- Computers  
Paper-II (Paper-II: Web Designing)

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day   |
| 1 <sup>st</sup> Week<br>3 Nov - 5 Nov                 | Images: Types of Images, Insertion of Image, Movement of Image, Ordered and Unordered lists |
| 6 Nov, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>10 Nov – 12 Nov               | Inserting Graphics; Table Handling Functions like Columns, Rows, Width, Colours             |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday  |
| 3 <sup>rd</sup> Week<br>17 Nov - 19 Nov               | Frame Creation and Layouts, Communication between frames                                    |
| 20 Nov, 2022  | Sunday  |
| 4 <sup>th</sup> Week<br>24 Nov - 26 Nov               | Practice of developing Web Pages.   |
| 27 Nov, 2022  | Sunday  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams   |
| 4 Dec, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>8 Dec - 10 Dec                | Working with Forms and Menus; Working with Buttons like Radio, Check Box                    |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination  |



# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (November 2022- January 2023)

Name of the Teacher – Tarjeet kaur

Class- M.Sc. First year

Subject- Web Engineering

Paper- MS-15-11

|   |   |
|---|---|
| November, 2022<br>6 Nov, 2022           | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov  | Introduction to Web Engineering: Categories and Characteristics of Web Applications, Web Applications Vs Conventional Software, Need for an Engineering Approach.   |
| 8 Nov,2022<br>13 Nov, 2022              | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov | Web Essentials: The Internet, Basic Internet Protocols, WWW, HTTP (Structure of Request and Response Messages), Web Browser and its functions, URL, Web Servers and their features, Defining Virtual Hosts, Secure Servers. |
| 20 Nov, 2022                            | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov | MarkUp Languages: Introduction to HTML, Characteristics, XHTML Syntax and Semantics, Fundamental HTML Elements, Lists, Tables, Frames, Forms, XHTML Abstract Syntax, Creating HTML Pages.                                   |
| 27 Nov, 2022                            | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec  | Cascading Style Sheets: Features, Core Syntax, Types, Style Sheets and HTML, Style Rule Cascading and Inheritance, Text Properties, CSS Box Model, Normal Flow Box Layout, Positioning and other useful Style Properties.   |
| 4 Dec, 2022                             | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec  | Client–Side Programming: Introduction to JavaScript, Perspective, Basic Syntax, Variables and Data types,   |
| 11 Dec, 2022                            | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12-17 Dec,2022  | Statements, Operators, Literals, Functions, Objects, Arrays, Built-in Objects, Debuggers.   |
| 18 Dec, 2022                            | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19-24 Dec,2022  | Sessions, Cookies, URL Rewriting, Servlet Capabilities, Servlets and Concurrency  |
| 25 Dec, 2022                            | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>26-31 Dec,2022  | Practical Implementation of XML,DHTML,CSS, Java Script  |
| 29 Dec,2022                             | <b>Guru Gobind Singh Jayanti</b>  |
| 1 Jan, 2023                             | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>2-7 Jan, 2023   | Server-Side Programming: Servlet Architecture, Generating Dynamic Content, Servlet Life Cycle   |
| 8 Jan, 2023                             | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>8-14 Jan, 2023  | XML: Relation between XML, HTML, SGML, Goals of XML, Structure and Syntax of XML, Well Formed XML, DTD and its Structure, Namespaces and Data Typing in XML, Transforming   |
| 15 Jan, 2023                            | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>16-21 Jan, 2023 | XML Documents, XPATH, Template based Transformations, Linking with XML, Displaying XML documents in Browsers  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher –Ms. Megha

Class- BBA-II

Subject- Fundamentals of DBMS and ORACLE

Paper- BBA -205

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Basic concepts-Traditional file oriented approach, Disadvantages of simple file system.                      |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Database approach, advantages of database approach.  |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Database management system (DBMS), Components of DBMS environment.   |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Advantages and disadvantages of DBMS, DBMS architecture.   |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b> |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Data independence, data models.  |
| 30 Sept, 2022  | <b>Talent show</b>   |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022  | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | Keys, computers: an introduction, use of computer in business  |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Advantages and disadvantages, computerized system for inventory control, payroll order.                      |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Banking and accounting.  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher –Ms. Megha

Class- BBA-II

Subject- Fundamentals of DBMS and ORACLE

Paper- BBA -205

|   |  |
|---|--|
| 22 Oct - 26 Oct                                       | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct               | SQL using oracle: introduction to SQL, components of SQL: DDL, DML & DCL.                                |
| 30 Oct, 2022  | <b>Sunday</b>  |
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>   |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Data types in SQL, DDL Commands: create , alter, drop, truncate.   |
| 6 Nov, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Creating queries with DDL commands and implementing constraints.   |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | DML Commands: insert, delete, update, select with Group by and Order by.                                 |
| 20 Nov, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Creating queries with DML commands, operators: set and logical.SQL functions: numeric, scalar and group. |
| 27 Nov, 2022  | <b>Sunday</b>  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>   |
| 4 Dec, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Report writing: commands, advantages of report writing.  |
| 3 <sup>rd</sup> Week 15<br>Dec,2022<br>Onwards        | <b>University Examination</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher –Ms. Megha

Class- BCA III

Subject- Computer Networks

Paper- BCA-354

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction to data communication and computer network.  |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Uses of computer network, types of computer network and their topologies, network hardware components.  |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Connectors, transceivers, repeaters, hubs, network interface cards, switches, routers, gateways.  |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Network software, network design issues and protocols, connection oriented and connectionless services, OSI reference Model.  |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>  |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Networking models, distributed systems, client/server model, peer to peer model, and web based model.   |
| 30 Sept, 2022  | <b>Talent show</b>  |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022  | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | Analog and digital data and signals, bandwidth and data rate, capacity, baud rate, transmission impairment, data rate limits.   |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Guided transmission media, wireless transmission, communication satellites, switching and multiplexing, modems and modulation techniques, ADSL and cable modems.                                    |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Data link layers, design issues, error detection and correction ,sliding window protocols, one bit go back N and selective Repeat, Media Access Control, ALOHA, Slotted Aloha, CSMA, free protocol. |
| 22 Oct - 26 Oct  | <b>Diwali Break</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher –Ms. Megha

Class- BCA III

Subject- Computer Networks

Paper- BCA-354

|   |   |
|---|---|
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct               | Introduction to LAN technologies, Ethernet, switched Ethernet, fast Ethernet, Gigabit Ethernet, Token Ring, Introduction to Wireless LANs and Bluetooth, VLANs. |
| 30 Oct, 2022  | <b>Sunday</b>   |
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Routing Algorithms, Flooding, shortest path routing ,distance vector routing.   |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Link state routing, hierarchical routing, congestion control.   |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Traffic shaping, choke packets.   |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Load shedding, elements of transport protocols, network security issues.  |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Security attacks, encryption method, digital signature, digital certificate.  |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | <b>University Examination</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher –Ms. Megha

Class- B.COM I

Subject- Computer Application in Business

Paper- BC-104

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction to computer: Definition, Components.  |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Characteristics of Computer, input devices.  |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Output devices. Memory and mass storage devices.   |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Introduction to modern CPU and processors.   |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b> |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Computer software: introduction, types of software, system.  |
| 30 Sept, 2022  | <b>Talent show</b>   |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022  | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | Application and utility software, programming languages.   |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Introduction to operating system types and functions.  |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Real time applications, operating systems for tabs, mobile phones, android etc.                              |
| 22 Oct - 26 Oct  | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct                  | Open source software: an overview  |
| 30 Oct, 2022   | <b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher –Ms. Megha  
Class- B.COM I  
Subject- Computer Application in Business  
Paper- BC-104

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>                                    |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Application software: spreadsheets, word processors.  |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Database management software.                         |
| 8 Nov, 2022<br>13 Nov, 2022                           | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>    |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Network basics, types of network                      |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Topologies.   |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>                                |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Media, hardware and software required for networking. |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | <b>University Examination</b>                         |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Megha

Class- BCA-II

Subject- Software Engineering

Paper- BCA-234

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction: program vs software, software engineering, programming paradigms, software crises-problem and causes.                                 |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Phases in software development, requirement analysis, software design, coding, testing, maintenance.  |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Software development process models, waterfall, prototype, evolutionary and spiral models, role of metrics.   |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Feasibility study, requirement analysis and specifications: SRS, Need for SRS, Characteristics of an SRS, Components of an SRS, Problem Analysis.   |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>  |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Information gathering tools, organizing and structuring information , requirement specification, validation and verification, SCM.                  |
| 30 Sept, 2022  | <b>Talent show</b>  |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022  | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | Structured analysis and tools, Data flow diagram, data dictionary ,decision table, decision tress, structured English.                              |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Entity-relationship diagram, cohesion and coupling, Gantt Chart, Pert Chart, Software Maintenance: types of Maintenance, Management of Maintenance. |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Maintenance process, maintenance characteristics.   |



# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Megha

Class- BCA-II

Subject- Software Engineering

Paper- BCA-234

|   |   |
|---|---|
| 22 Oct - 26 Oct                                       | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct               | Software project planning, cost estimation, COCOMO Model ,project scheduling. |
| 30 Oct, 2022  | <b>Sunday</b>   |
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Staffing and personnel planning, team structure.                              |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Software configuration management, quality assurance plans.                   |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>                            |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Project monitoring plans, risk management ,software testing strategies.       |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Unit testing, integration testing   |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Validation testing, system testing, alpha and beta testing.                   |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | <b>University Examination</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Megha

Class- B.A. II

Subject- Data Structure

Paper- Paper-I

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction: elementary data organization, data structure definition, data type vs. data structure.  |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Categories of data structure, data structure operations, applications of data structures, algorithm complexity and time-space tradeoff.   |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Big-O notation, string: introduction, strong strings, string operations ,pattern Matching algorithms.   |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Arrays: ,linear arrays, representation of linear array in memory, traversal ,insertions, deletions in an array, multidimensional arrays ,parallel arrays.                                 |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>  |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Sparse arrays, linked list: introduction, array vs. linked list, representation of linked list in memory, traversal, insertion, deletion, searching in a linked list, header linked list. |
| 30 Sept, 2022  | <b>Talent show</b>  |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022  | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | Circular Linked List, two way linked list, garbage collection, applications of linked list, algorithms of insertion/deletion in SLL.  |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Stacks: primitive operation on stack, algorithms of push and pop, representation of stack as linked list and array, stack applications: polish notation, recursion.                       |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Introduction to queues, primitive operations on queues, circular queue, priority queue, representation of queues as linked list and array, applications of queues.                        |
| 22 Oct - 26 Oct  | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct                  | Algorithm on insertion and deletion in simple queue and circular queue.   |
| 30 Oct, 2022   | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Megha

Class- B.A. II

Subject- Data Structure

Paper- Paper-I

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>   |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Tree: basic terminology, representation.   |
| 6 Nov, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Binary trees, tree representations using array & linked list, basic operation on binary tree.                        |
| 8 Nov, 2022<br>13 Nov, 2022                           | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Traversal of binary trees: In order, Preorder & Post order.  |
| 20 Nov, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Applications of binary trees, algorithm of tree traversal with and without recursion.                                |
| 27 Nov, 2022  | <b>Sunday</b>  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>   |
| 4 Dec, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Introduction to graphs, definition, terminology, directed, undirected, and weighted graph, representation of graphs. |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | <b>University Examination</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur

Class- BCA-I

Subject- Computer

Paper- BCA-111 Computer and Programming Fundamentals

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | <b>UNIT-I</b><br>Computer Fundamentals: Definition, Block Diagram along with its components                             |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Characteristics & classification of computers, Applications of computers in various fields.                             |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Memory: Concept of primary & secondary memory, RAM, ROM, types of ROM   |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Flash memory, Secondary storage devices: Sequential & direct access devices viz. Magnetic tape, Magnetic disk, CD, DVD. |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>            |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | <b>UNIT-II</b><br>Computer hardware & software: I/O devices<br><b>Class Test-I</b>                                      |
| 30 Sept, 2022  | <b>Talent show</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur

Class- BCA-I

Subject- Computer

Paper- BCA-111 Computer and Programming Fundamentals

|   |  |
|---|--|
| 2 Oct, 2022                             | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct   | Relationship between hardware and software, types of software  |
| 5 Oct,2022<br>9 Oct,2022                | <b>Dussehra<br/>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct | Operating system: Definition, functions of operating system, concept of multiprogramming   |
| 13 Oct, 2022<br>16 Oct,2022             | <b>Karwa Chauth<br/>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct | Multitasking, Multithreading, Multiprocessing, time-sharing, real time, single-user & Multi-user operating system.               |
| 22 Oct - 26 Oct                         | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct | UNIT-III<br>Planning the Computer Program: Concept of problem solving, Problem definition, Program design<br><b>Class Test-2</b> |
| 30 Oct, 2022                            | <b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur

Class- BCA-I

Subject- Computer

Paper- BCA-111 Computer and Programming Fundamentals

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Debugging, Types of errors in programming, Documentation, Techniques of Problem Solving: Flowcharting  |
| 6 Nov, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Algorithms, pseudo code, decision table, Structured programming concepts, Programming methodologies viz. top-down and bottom-up programming. |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday   |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Computer Virus, WORMS, Trojan  |
| 20 Nov, 2022  | Sunday   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | UNIT-IV<br>Searching Linear & Binary Searching   |
| 27 Nov, 2022  | Sunday   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams<br>Sorting, and Merging:, Bubble, Selection  |
| 4 Dec, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Revision   |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur  
Class- BCA-II  
Subject- Computer  
Paper- BCA-232 Data Structures

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | <b>UNIT – I</b><br>Introduction: Elementary data organization, Data Structure definition,<br>Data type vs. data structure, Categories of data structures |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Data structure operations, Applications of data structures, Algorithms<br>complexity and time-space tradeoff   |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Big-O notation.<br>Strings: Introduction, String strings, String operations, Pattern<br>matching algorithms.   |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | <b>UNIT – II</b><br>Arrays: Introduction. Linear arrays, Representation of linear array in<br>Memory   |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>   |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Traversal, Insertions, Deletion in an array, Multidimensional<br>arrays<br><b>Class Test-I</b>   |
| 30 Sept, 2022  | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur  
Class- BCA-II  
Subject- Computer  
Paper- BCA-232 Data Structures

|   |  |
|---|--|
| 2 Oct, 2022                             | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct   | Linked List: Introduction, Array vs. linked list, Representation of linked lists in memory                 |
| 5 Oct,2022<br>9 Oct,2022                | <b>Dussehra<br/>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct | Traversal, Insertion   |
| 13 Oct, 2022<br>16 Oct,2022             | <b>Karwa Chauth<br/>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct | Deletion   |
| 22 Oct - 26 Oct                         | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct | <b>UNIT – III</b><br>Stack: Introduction, Array and linked representation of stacks<br><b>Class Test-2</b> |
| 30 Oct, 2022                            | <b>Sunday</b>  |



# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur  
Class- BCA-II  
Subject- Computer  
Paper- BCA-232 Data Structures

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day   |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Operations on stacks, Applications of stacks: Polish notation, Recursion.             |
| 6 Nov, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Queues: Introduction, Array and linked representation of queues, Operations on Queues |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | UNIT – IV<br>Tree: Introduction, Definition, Representing Binary tree in memory       |
| 20 Nov, 2022  | Sunday  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Graph: Introduction, Graph theory terminology   |
| 27 Nov, 2022  | Sunday  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams<br>Sequential and linked representation of graphs.                    |
| 4 Dec, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Revision  |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur  
Class- BCA-III  
Subject- Computer  
Paper- BCA-356 Multimedia Tools

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | <b>UNIT – I</b><br>Multimedia: Basic Concept, Definition, Components & Applications of Multimedia; Hypermedia        |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Multimedia; Multimedia Hardware and Software; Multimedia Software Tools; Presentation Tools;                         |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Multimedia Authoring: Introduction, Features, Types of Authoring Tools: Card or Page-Based, Icon                     |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | <b>UNIT – II</b><br>Images: Graphics/Image Data Types, File Formats; Color Models in Images and Video                |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>         |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Video: Introduction, Types of Video Signals; Analog and Digital Video; Analog Video Standards<br><b>Class Test-I</b> |
| 30 Sept, 2022  | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur  
Class- BCA-III  
Subject- Computer  
Paper- BCA-356 Multimedia Tools

|   |   |
|---|---|
| 2 Oct, 2022                             | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct   | NTSC, PAL, SECA; Digital Video Standards: Chroma Subsampling, CCIR Standards, HDTV                                      |
| 5 Oct,2022<br>9 Oct,2022                | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct | <b>UNIT – III</b><br>Digital Audio: Basic Concepts, Analog vs. Digital Audio, Digitization of Sound; Digital Audio File |
| 13 Oct, 2022<br>16 Oct,2022             | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct | Formats, MIDI<br>Quantization and Transmission of Audio: Coding of Audio; Pulse Code Modulation                         |
| 22 Oct - 26 Oct                         | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct | Differential<br>Coding of Audio; Lossless Predictive Coding; DPCM; DM; ADPCM<br><b>Class Test-2</b>                     |
| 30 Oct, 2022                            | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur  
Class- BCA-III  
Subject- Computer  
Paper- BCA-356 Multimedia Tools

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day   |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | UNIT – IV<br>Compression Techniques: Introduction, Types of Data Compression, Run-Length Coding, Variable |
| 6 Nov, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Length Coding, Dictionary-Based Coding, Transform Coding for  |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Image and Video Compression Techniques: JPEG Standard   |
| 20 Nov, 2022  | Sunday  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Image Compression; JPEG Mode,   |
| 27 Nov, 2022  | Sunday  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams<br>Video Compression Techniques: H.261, H.263, MPEG                                       |
| 4 Dec, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Revision  |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur

Class- BBA-I

Subject- Computer

Paper- BBA-106 Computer and Programming Fundamentals

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction to Computer: Introduction, Components, Types  |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Brief history of computers,<br>generations of computer   |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Computer Memory  |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Software and Hardware  |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b> |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Operating Systems-<br>An Overview, Types<br><b>Class Test-1</b>  |
| 30 Sept, 2022  | <b>Talent show</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur

Class- BBA-I

Subject- Computer

Paper- BBA-106 Computer and Programming Fundamentals

|   |   |
|---|---|
| 2 Oct, 2022                             | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct   | function; Language: - Low level, Assembly Level, High Level   |
| 5 Oct,2022<br>9 Oct,2022                | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct | Language; Language Processor: - Assembler, Compilers and Interpreters; Network:-LAN, WAN, MAN.  |
| 13 Oct, 2022<br>16 Oct,2022             | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct | Number Systems; CUI vs GUI. Window-features, types.   |
| 22 Oct - 26 Oct                         | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct | Introduction to Internet: Internet basic, benefit and limitation, application and scope, IP address, Browser, WWW, E-mail, video conferencing.<br><b>Class Test-2</b> |
| 30 Oct, 2022                            | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms.Gurcharan Kaur

Class- BBA-I

Subject- Computer

Paper- BBA-106 Computer and Programming Fundamentals

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Introduction to MS-Office- MS-Word: Starting Word, new documents, entering text, changing text, aligning, underlining, and justifying text. Tables                   |
| 6 Nov, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | creation, adding rows and columns, splitting, and combining cells, Borders. Saving, closing, and operating documents.<br>Adding headers and footers.                 |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday   |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Power Point (Presentation software): Basic concept of presentation software, standard toolbar, formatting toolbar, and drawing toolbars in PowerPoint and their use. |
| 20 Nov, 2022  | Sunday   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Introduction to Ms-Excel: working with spreadsheet, Basic commands and Functions.  |
| 27 Nov, 2022  | Sunday   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams  |
| 4 Dec, 2022   | Sunday   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Revision   |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Leena  
 Class- BCA-I (Semester I)  
 Subject- Computers  
 Paper- BCA-116 (Programming in C)

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | History of C, Importance of C, Structure of a C Program.  |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Elements of C, C character set, identifiers and keywords, Data types, Constants and Variables, Assignment statement, Symbolic constant. |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Unformatted & formatted I/O function in C, Input functions ( scanf(), getch(), getche(), getchar(), gets() ).                           |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Output functions ( printf(), putchar(), puts() ).   |
| 23 Sept, 2022  | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b>  |
| 25 Sept, 2022  | <b>Sunday</b>   |
| 26 Sept, 2022  | <b>Maharana Agrasen Jayanti</b>   |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Arithmetic, relational, logical, bitwise, unary, assignment.  |
| 30 Sept, 2022  | <b>Talent show</b>  |



# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Leena  
 Class- BCA-I (Semester I)  
 Subject- Computers  
 Paper- BCA-116 (Programming in C)

|   |  |
|---|--|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022   | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct               | Conditional operators and special operators, Operators & Expression, Arithmetic expressions          |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra<br/>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct             | Evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth<br/>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct             | Decision making & branching: Decision making with IF statement, IF-ELSE statement                    |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct             | Nested IF statement, ELSE-IF ladder, switch statement, goto statement.                               |
| 30 Oct, 2022  | <b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Leena  
 Class- BCA-I (Semester I)  
 Subject- Computers  
 Paper- BCA-116 (Programming in C)

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | Haryana Day   |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Decision making & looping: For, while, and do-while loop  |
| 6 Nov, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Jumps in loops, break, continue statement. Functions: Definition, prototype, passing parameters, recursion. |
| 8 Nov,2022<br>13 Nov, 2022                            | Sh. Guru Nanak Dev jayanti<br>Sunday  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Storage classes in C: auto, extern, register and static storage class                                       |
| 20 Nov, 2022  | Sunday  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Their scope, storage, & lifetime. Arrays  |
| 27 Nov, 2022  | Sunday  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | Sessional Exams   |
| 4 Dec, 2022   | Sunday  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Definition, types, initialization, processing an array, passing arrays to functions, Strings & arrays.      |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | University Examination  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Leena  
Class- MSc-II (Semester III)  
Subject- Computers  
Paper- MS-15-32(Advanced Operating System)

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction to Distributed System, Hardware concepts, Software concepts, Design issues.                               |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Communication in Distributed Systems, Layered Protocols, ATM networks, The Client-Server model, Remote Procedure call. |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Group Communication, Synchronization in Distributed System, Clock Synchronization, Mutual Exclusion.                   |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Election algorithm, Atomic transactions, Deadlocks in Distributed systems.   |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>           |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Process and Processors in Distributed System threads.  |
| 30 Sept, 2022  | <b>Talent show</b>   |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022  | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | System Models, Processors allocation, Scheduling in Distributed System, Fault tolerance.                               |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Leena  
Class- MSc-II(Semester III)  
Subject- Computers  
Paper- MS-15-32(Advanced Operating System)

|   |   |
|---|---|
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct               | Real time Distributed System, Distributed file Systems, Distributed file systems design.                                  |
| 13 Oct, 2022<br>16 Oct,2022                           | <b>Karwa Chauth<br/>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct               | Distributed File System implementation,Trends in Distributed File System.   |
| 22 Oct - 26 Oct                                       | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct               | Distributed Shared Memory, Introduction, What is Shared memory, Consistency models, Page based Distributed Shared Memory. |
| 30 Oct, 2022  | <b>Sunday</b>   |
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Shared – variable Distributed Shared memory, Object based Distributed Shared Memory.                                      |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Basic Model of Real Time Systems, Characteristics, Applications of Real Time Systems                                      |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti<br/>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Real Time Task Scheduling, Handling Resource Sharing.   |
| 20 Nov, 2022  | <b>Sunday</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Leena  
Class- MSc-II(Semester III)  
Subject- Computers  
Paper- MS-15-32(Advanced Operating System)

|  |   |
|--|---|
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov        | Mobile Operating Systems, Micro kernel Design                           |
| 27 Nov, 2022                                   | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec         | <b>Sessional Exams</b>  |
| 4 Dec, 2022                                    | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec         | Client Server Resource Access, Proceses and Threads, Memory Management. |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards | <b>University Examination</b>   |

## KVA DAV College for Women, Karnal

### Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Saumya Kumar

Class- M.sc. Final year

Subject- Advanced Database Systems

Paper- MS-15-32

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Database System Concepts-Basics, Three Schema Architecture and Data Independence.  |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | E-R Diagram , naming conventions, and Relational model constraints   |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | EER Model –Subclasses,Superclass , Inheritance, Specialisation and Generalisation,Constraints and Characteristics of Specialisation and Generalisation |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Basics of object oriented concept, object identity, objects structure, type constructors, Encapsulation of operations, Methods and Persistence.        |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>   |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Type Hierarchies and Inheritance, Complex Objects. Introduction to Query processing and optimization.  |
| 30 Sept, 2022  | <b>Talent show</b>   |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022  | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | Semantic Query Optimization and Database Tuning In Relational Systems.   |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Active Database concepts and Triggers  |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Temporal Database Concepts, Spatial and Multimedia Databases, Deductive Databases  |
| 22 Oct - 26 Oct  | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct                  | Introduction to XML Schema,Documents   |
| 30 Oct, 2022   | <b>Sunday</b>  |

**KVA DAV College for Women, Karnal**

**Lesson Plan for the Odd Semester  
(September to December, 2022)**

**Name of the Teacher – Saumya Kumar**

**Class- M.sc. Final year**

**Subject- Advanced Database Systems**

**Paper- MS-15-32**

|   |   |
|---|---|
| <b>November, 2022</b>                                   |   |
| <b>1st Week</b><br><b>1 Nov, 2022</b>                   | <b>Haryana Day</b>  |
| <b>1st Week</b><br><b>2 Nov - 5 Nov</b>                 | XML Schema, documents and Databases.  |
| <b>6 Nov, 2022</b>                                      | <b>Sunday</b>   |
| <b>2nd Week</b><br><b>7 Nov – 12 Nov</b>                | Principles of big Data-Ontologies and Semantics, classifications, The simplest of ontologies. |
| <b>8 Nov,2022</b><br><b>13 Nov, 2022</b>                | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| <b>3rd Week</b><br><b>14 Nov - 19 Nov</b>               | Ontologies classes and Multiple Parents, choosing a Data model                                |
| <b>20 Nov, 2022</b>                                     | <b>Sunday</b>   |
| <b>4th Week</b><br><b>21 Nov - 26 Nov</b>               | Data Integration and Software Interoperability Versioning.                                    |
| <b>27 Nov, 2022</b>                                     | <b>Sunday</b>   |
| <b>5th Week</b><br><b>28 Nov – 3 Dec</b>                | <b>Sessional Exams</b>  |
| <b>4 Dec, 2022</b>                                      | <b>Sunday</b>   |
| <b>2nd Week</b><br><b>5 Dec - 10 Dec</b>                | Compliance Issues , Stepwise Approach to Big Data Analysis, Failures and Legalities.          |
| <b>3rd Week</b><br><b>15 Dec,2022</b><br><b>Onwards</b> | <b>University Examination</b>   |

## KVA DAV College for Women, Karnal

### Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Saumya Kumar  
 Class- M.Com 3<sup>rd</sup> Sem  
 Subject- Computer Applications In Business  
 Paper- MC 301

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Computer System :Meaning and Scope   |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Basic Computer Organisation:-Central Processing Unit , Input, Output, AND Storage Devices.                   |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Introduction to Software, System Software-Operating System, UserInterface and it's Types                     |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Application Software   |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b> |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Word Processing , Spreadsheets   |
| 30 Sept, 2022  | <b>Talent show</b>   |
| October, 2022<br>1st Week<br>1 Oct,2022                  | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022  | <b>Sunday</b>  |
| 1st Week<br>3 Oct - 8 Oct                                | Introduction to Databases , Tables and queries   |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>   |
| 2nd Week<br>10 Oct - 15 Oct                              | Introduction to Report and Form Generation.  |
| 3rd Week<br>17 Oct - 21 Oct                              | Fuzzy Logic, Information Technology in Business, Concepts of Information Technology.                         |
| 22 Oct - 26 Oct  | Diwali Break   |
| 4th Week<br>27 Oct - 31 Oct                              | Local Area Network , Media And Topologies.   |
| 30 Oct, 2022   | Sunday   |
| November, 2022<br>1st Week<br>1 Nov, 2022                | Haryana Day  |
| 1st Week<br>2 Nov - 5 Nov                                | Wide Area Networks,Electronic Data Processing.   |



**KVA DAV College for Women, Karnal**

**Lesson Plan for the Odd Semester  
(September to December, 2022)**

**Name of the Teacher – Saumya Kumar**

**Class- M.Com 3<sup>rd</sup> Sem**

**Subject- Computer Applications In Business**

**Paper- MC 301**

|   |  |
|---|--|
| <b>6 Nov, 2022</b>                          | <b>Sunday</b>  |
| <b>2nd Week<br/>7 Nov – 12 Nov</b>          | Intranet and Extranet  |
| <b>8 Nov,2022<br/>13 Nov, 2022</b>          | <b>Sh. Guru Nanak Dev jayanti<br/>Sunday</b>                     |
| <b>3rd Week<br/>14 Nov - 19 Nov</b>         | Concept and evolution of Internet                                |
| <b>20 Nov, 2022</b>                         | <b>Sunday</b>  |
| <b>4th Week<br/>21 Nov - 26 Nov</b>         | World Wide Web , Multimedia Technologies                         |
| <b>27 Nov, 2022</b>                         | <b>Sunday</b>  |
| <b>5th Week<br/>28 Nov – 3 Dec</b>          | Sessional Exams  |
| <b>4 Dec, 2022</b>                          | <b>Sunday</b>  |
| <b>2nd Week<br/>5 Dec - 10 Dec</b>          | Video Conferencing , Broadband Networks and Designing Web Pages. |
| <b>3rd Week<br/>15 Dec,2022<br/>Onwards</b> | <b>University Examination</b>                                    |

## KVA DAV College for Women, Karnal

### Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Saumya Kumar

Class- BBA 5<sup>TH</sup> sem

Subject-Fundamentals of E-Commerce

Paper- BBA-304

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Definition of E-Commerce, Benefits of E-Commerce.   |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Role of internet in e-commerce, Implications of E –Commerce for accounting Professionals.   |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Regulatory Environment- Cryptographic Issues, Privacy Issues(Children’s issues, adults rights).   |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Domain name disputes, electronic agreements and digital signatures  |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes’ Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>  |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Internet Service Provider, Firewalls, TCP/IP.   |
| 30 Sept, 2022  | <b>Talent show</b>  |
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022      | <b>Talent Show Holiday</b>  |
| 2 Oct, 2022  | <b>Sunday</b>   |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct                    | OSI Model, Components of Firewall.  |
| 5 Oct,2022<br>9 Oct,2022                                 | <b>Dussehra</b><br><b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct                  | Limitations of the Security Preventions provide by firewalls, Introduction to EDI Ecommerce and Internet- Traditional EDI Systems(Origin, non EDI Systems). |
| 13 Oct, 2022<br>16 Oct,2022                              | <b>Karwa Chauth</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct                  | Value Added Networks , Partially and Fully Integrated EDI Systems.  |
| 22 Oct - 26 Oct  | <b>Diwali Break</b>   |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct                  | Benefits of EDI Systems<br>Introduction to Financial EDI  |

**KVA DAV College for Women, Karnal**

**Lesson Plan for the Odd Semester  
(September to December, 2022)**

**Name of the Teacher – Saumya Kumar**

**Class- BBA 5<sup>TH</sup> sem**

**Subject-Fundamentals of E-Commerce**

**Paper- BBA-304**

|   |   |
|---|---|
| <b>30 Oct, 2022</b>                         | <b>Sunday</b>                                 |
| <b>1st Week<br/>2 Nov - 5 Nov</b>           | Financial EDI System and it's characteristics |
| <b>6 Nov, 2022</b>                          | <b>Sunday</b>                                 |
| <b>2nd Week<br/>7 Nov – 12 Nov</b>          | EDI Systems and Internet, Intelligent Agents. |
| <b>8 Nov,2022<br/>13 Nov, 2022</b>          | <b>Sh. Guru Nanak Dev jayanti<br/>Sunday</b>  |
| <b>3rd Week<br/>14 Nov - 19 Nov</b>         | Web based Marketing                           |
| <b>20 Nov, 2022</b>                         | <b>Sunday</b>                                 |
| <b>4th Week<br/>21 Nov - 26 Nov</b>         | Risk Management Paradigm , Role of Internet.  |
| <b>27 Nov, 2022</b>                         | <b>Sunday</b>                                 |
| <b>5th Week<br/>28 Nov – 3 Dec</b>          | <b>Sessional Exams</b>                        |
| <b>4 Dec, 2022</b>                          | <b>Sunday</b>                                 |
| <b>2nd Week<br/>5 Dec - 10 Dec</b>          | Controls in Risk Management                   |
| <b>3rd Week<br/>15 Dec,2022<br/>onwards</b> | <b>University Examination</b>                 |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mandeep Kaur

Class- B.A II

Subject- Data Structures

Paper- Paper-I

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction: elementary data organization, data structure definition, data type vs. data structure   |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Categories of data structure, data structure operations, applications of data structures, algorithm complexity and time-space tradeoff  |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Big-O notation, string: introduction, strong strings, string operations ,pattern Matching algorithms.   |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Arrays: ,linear arrays, representation of linear array in memory, traversal ,insertions, deletions in an array, multidimensional arrays ,parallel arrays.                                 |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>  |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Sparse arrays, linked list: introduction, array vs. linked list, representation of linked list in memory, traversal, insertion, deletion, searching in a linked list, header linked list. |
| 30 Sept, 2022  | <b>Talent show</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mandeep Kaur

Class- B.A. II

Subject- Data Structures

Paper- Paper-I

|   |  |
|---|--|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022   | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct               | Circular Linked List, two way linked list, garbage collection, applications of linked list, algorithms of insertion/deletion in SLL.                               |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra<br/>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct             | Stacks: primitive operation on stack, algorithms of push and pop, representation of stack as linked list and array, stack applications: polish notation, recursion |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth<br/>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct             | Introduction to queues, primitive operations on queues, circular queue, priority queue, representation of queues as linked list and array, applications of queues. |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct             | Algorithm on insertion and deletion in simple queue and circular queue.  |
| 30 Oct, 2022  | <b>Sunday</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mandeep Kaur

Class- B.A. II

Subject- Data Structures

Paper- Paper-I

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>   |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Tree: basic terminology, representation  |
| 6 Nov, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Binary trees, tree representations using array & linked list, basic operation on binary tree.                        |
| 8 Nov, 2022<br>13 Nov, 2022                           | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Traversal of binary trees: In order, Preorder & Post order.  |
| 20 Nov, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Applications of binary trees, algorithm of tree traversal with and without recursion.                                |
| 27 Nov, 2022  | <b>Sunday</b>  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>   |
| 4 Dec, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Introduction to graphs, definition, terminology, directed, undirected, and weighted graph, representation of graphs. |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | <b>University Examination</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mandeep Kaur

Class- B.A II

Subject- Software Engineering

Paper- Paper-II

|  |  |
|--|--|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Program vs. Software, Software Engineering   |
| 4 Sept, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Programming paradigms, Software Crisis – problem and causes, Phases in Software development: Requirement Analysis, Software Design, Coding, Testing, Maintenance |
| 11 Sept, 2022  | <b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Software Development Process Models: Waterfall, Prototype  |
| 18 Sept, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Evolutionary and Spiral models, Role of Metrics.   |
| 23 Sept, 2022<br>25 Sept, 2022<br>26 Sept, 2022          | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>   |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Feasibility Study, Software Requirement Analysis and Specifications  |
| 30 Sept, 2022  | <b>Talent show</b>   |

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## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mandeep Kaur

Class- B.A. II

Subject- Software Engineering

Paper- Paper-II

|   |  |
|---|--|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022   | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct               | SRS, Need for SRS, Characteristics of an SRS, Components of an SRS, Problem Analysis                                     |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra</b><br><b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct             | Information gathering tools, Organizing and structuring information, Requirement Specification, validation and metrics . |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct             | Structured Analysis and Tools: Data Flow Diagram, Data Dictionary, Decision table, Decision tress, Structured English    |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct             | .<br>Entity-Relationship diagrams, Software Project Planning: Cost estimation: COCOMO model                              |
| 30 Oct, 2022  | <b>Sunday</b>  |



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Name of the Teacher – Ms. Mandeep Kaur  
Class- B.A. II  
Subject- Software Engineering  
Paper- Paper-II

|   |   |
|---|---|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>  |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Project scheduling ,Staffing and personnel planning, team structure   |
| 6 Nov, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Software configuration management, Quality assurance plans, Project monitoring plans  |
| 8 Nov,2022<br>13 Nov, 2022                            | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>  |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Risk Management, Software testing strategies: unit testing, integration testing, Validation testing, System testing, Alpha and Beta testing |
| 20 Nov, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Black box Testing, White Box Testing, Cyclomatic Complexity,  |
| 27 Nov, 2022  | <b>Sunday</b>   |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>  |
| 4 Dec, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Software Maintenance: Type of maintenance, Management of Maintenance, Maintenance Process, maintenance characteristics.                     |
| 3 <sup>rd</sup> Week<br>15 Dec,2022<br>Onwards        | <b>University Examination</b>   |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mandeep Kaur

Class- B.Sc. (CS) II

Subject- Data Structures

Paper- Paper-I

|  |   |
|--|---|
| September, 2022<br>1 <sup>st</sup> Week<br>1 Sept-3 Sept | Introduction: elementary data organization, data structure definition, data type vs. data structure   |
| 4 Sept, 2022   | <b>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>5 Sept- 10 Sept                  | Categories of data structure, data structure operations, applications of data structures, algorithm complexity and time-space tradeoff  |
| 11 Sept, 2022  | <b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>12 Sept-17 Sept                  | Big-O notation, string: introduction, strong strings, string operations ,pattern Matching algorithms.   |
| 18 Sept, 2022  | <b>Sunday</b>   |
| 4 <sup>th</sup> Week<br>19 Sept-24 Sept                  | Arrays: ,linear arrays, representation of linear array in memory, traversal ,insertions, deletions in an array, multidimensional arrays ,parallel arrays.                                 |
| 23 Sept,2022<br>25 Sept, 2022<br>26 Sept, 2022           | <b>Shaheedi Divas/ Haryana War Heroes' Martyrdom Day</b><br><b>Sunday</b><br><b>Maharana Agrasen Jayanti</b>  |
| 5 <sup>th</sup> Week<br>27 Sept - 29 Sept                | Sparse arrays, linked list: introduction, array vs. linked list, representation of linked list in memory, traversal, insertion, deletion, searching in a linked list, header linked list. |
| 30 Sept, 2022  | <b>Talent show</b>  |

# KVA DAV College for Women, Karnal

## Lesson Plan for the Odd Semester (September to December, 2022)

Name of the Teacher – Ms. Mandeep Kaur

Class- B.Sc. (CS) II

Subject- Data Structures

Paper- Paper-I

|   |  |
|---|--|
| October, 2022<br>1 <sup>st</sup> Week<br>1 Oct,2022 | <b>Talent Show Holiday</b>   |
| 2 Oct, 2022   | <b>Sunday</b>  |
| 1 <sup>st</sup> Week<br>3 Oct - 8 Oct               | Circular Linked List, two way linked list, garbage collection, applications of linked list, algorithms of insertion/deletion in SLL.                               |
| 5 Oct,2022<br>9 Oct,2022                            | <b>Dussehra<br/>Sunday</b>   |
| 2 <sup>nd</sup> Week<br>10 Oct - 15 Oct             | Stacks: primitive operation on stack, algorithms of push and pop, representation of stack as linked list and array, stack applications: polish notation, recursion |
| 13 Oct, 2022<br>16 Oct,2022                         | <b>Karwa Chauth<br/>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>17 Oct - 21 Oct             | Introduction to queues, primitive operations on queues, circular queue, priority queue, representation of queues as linked list and array, applications of queues. |
| 22 Oct - 26 Oct                                     | <b>Diwali Break</b>  |
| 4 <sup>th</sup> Week<br>27 Oct - 31 Oct             | Algorithm on insertion and deletion in simple queue and circular queue.  |
| 30 Oct, 2022  | <b>Sunday</b>  |

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Class- B.Sc. (CS) II

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Paper- Paper-I

|   |  |
|---|--|
| November, 2022<br>1 <sup>st</sup> Week<br>1 Nov, 2022 | <b>Haryana Day</b>   |
| 1 <sup>st</sup> Week<br>2 Nov - 5 Nov                 | Tree: basic terminology, representation  |
| 6 Nov, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>7 Nov – 12 Nov                | Binary trees, tree representations using array & linked list, basic operation on binary tree.                        |
| 8 Nov, 2022<br>13 Nov, 2022                           | <b>Sh. Guru Nanak Dev jayanti</b><br><b>Sunday</b>   |
| 3 <sup>rd</sup> Week<br>14 Nov - 19 Nov               | Traversal of binary trees: In order, Preorder & Post order.  |
| 20 Nov, 2022  | <b>Sunday</b>  |
| 4 <sup>th</sup> Week<br>21 Nov - 26 Nov               | Applications of binary trees, algorithm of tree traversal with and without recursion.                                |
| 27 Nov, 2022  | <b>Sunday</b>  |
| 5 <sup>th</sup> Week<br>28 Nov – 3 Dec                | <b>Sessional Exams</b>   |
| 4 Dec, 2022   | <b>Sunday</b>  |
| 2 <sup>nd</sup> Week<br>5 Dec - 10 Dec                | Introduction to graphs, definition, terminology, directed, undirected, and weighted graph, representation of graphs. |
| 3 <sup>rd</sup> Week<br>15 Dec, 2022<br>Onwards       | <b>University Examination</b>  |

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Paper- Paper-II

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