

# LESSON PLAN

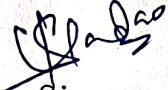
CLASS - M.Sc. (Comp. Sc.)

SEMESTER - III<sup>rd</sup>

Name of Assistant / Associate - Smt. Sushil Yadav

Subject / Paper - Data Warehousing & Mining.

| Unit | Month         | Subject Matter / Syllabus                                                                                                                                                                                                                                                       |
|------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | July - August | Data Warehousing : Intro, D.W. & DBMS, D.W. Architecture, D.W. Models, Data Cube & OLAP, Multidimensional data Model, Concept Hierarchies, OLAP operations, D.W. Implementation.                                                                                                |
| 2    | September     | Data Mining : Overview & its importance, Knowledge Discovery Process, Classification of Data Mining Systems, Data Mining Applications & Challenges. Data Pre-processing Need, Data Objects & Attribute types, Data cleaning, Data integration, Data Reduction & discretization. |
| 3    | October       | Data Mining Association & Correlations : freq. Patterns, Associations & Correlations, freq. Itemset Mining using Apriori Algo. & Challenges. Data Pre-processing need, Pattern Mining in Multilevel & Multidimensional Space, Constraint-Based frequent Pattern Mining.         |
| 4    | November      | Classification : Intro, Classification using D.T. Induction, Bayesian Classification Methods, Rule Based Classification, Model Evaluation & Selection. Cluster Analysis : Intro, Basic Partitioning Methods, Hierarchical Method Evaluation of Clustering Methods.              |

  
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# LESSON PLAN

CLASS - B.C.A.

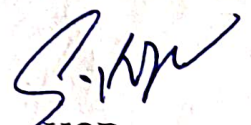
SEMESTER - III<sup>rd</sup>

Name of Assistant / Associate - Smt. Sushil Yadav

Subject / Paper Operating Systems

| Unit | Month         | Subject Matter / Syllabus                                                                                                                                                                                                                                                                    |
|------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | July - August | Intro. to O.S.: Objectives & Characteristics, Classification of O.S., System Calls & Services. Functions & Structures: Functions - All managements - Monolithic, layered, Microkernel, Exokernel & Virtual Machines.                                                                         |
| 2    | September     | Process Management & Scheduling: Criteria, Algo, Scheduling FCFS, SJF, Round Robin, Multi feedback Queue, Multiple Processors & Real Time scheduling. Process Concept - State Model, PCB & Threads, Scheduling Queues: Schedulers & C.S., Interprocess Communication.                        |
| 3    | October       | Memory Management: Concept, logical & Physical address space, Swapping, Memory allocation: Contiguous & Non-Contiguous, Paging, Segmentation, Virtual Memory Need, Demand paging, Handling page faults, Performance of D.P., Algo & Allocation of frames, Thrashing.                         |
| 4    | December      | I/O Management: Basics, Types, I/O S/W, Device Controllers, Drivers & Interrupt Handlers. Communication Approaches to I/O Devices. Secondary Storage Structure. File System Interface: Concept, File Access Methods. Free Space Management, Directory Structures. File Protection & Sharing. |

  
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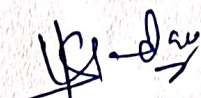
CLASS - B.Sc (Physical Science)

SEMESTER - III<sup>rd</sup>

Name of Assistant / Associate - Smt. Sushil Yadav

Subject / Paper - Java Programming (etc)

| Unit | Month         | Subject Matter / Syllabus                                                                                                                                                                                                                                                      |
|------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | July - August | Overview of Java: Java features, Setting up the IDE, Writing, Compiling & Running a JP., JVM & Bytecode, JDK & JRE. Basic language Elements: Java Syntax & Structure, Identifiers, Keywords, Literals, etc. Control flow statements                                            |
| 2    | September     | Array: Initializing, & DA, operations on String Mutable & Immutable String, Using Collection. Basic loop for String. Class fundamentals Object, life cycle, Creating & operating objects, Constructor & initialization code block, Classes, mechanism, Overloading, recursion. |
| 3    | October       | Introduction to Inheritance: Uses, Types, Data members & methods, Role of constructors. Overloading Super Class Methods. Interface: Purpose, defining, Implementing, Interface reference variables, With variables, Extending interfaces.                                      |
| 4    | November      | Exception Handling: Types of Errors, Try-Catch Blocks & finally clause, Throw & Throws keywords, Exceptions. Packages: Access Protection, Defining Packages, CLASSPATH Setting for Packages, Import & Naming Convention for Packages. GUI programming                          |

  
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## LESSON PLAN

CLASS - B.Sc (Comp. Sci)

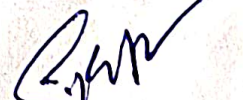
SEMESTER - V<sup>th</sup>

Name of Assistant / Associate - Smt. Sushil Ueda

Subject / Paper - Database Management System

| Unit | Month         | Subject Matter / Syllabus                                                                                                                                                            |
|------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | July - August | Basic Concepts, File based system Limitations, Database Approach, DBMS, Components, functions, Advantages & Disadvantages, Classification of DBMS Roles in the Database Environment. |
| 2    | September     | Centralized & C-S Architecture to DBMS DBMS Architecture, Data Independence Data Models.                                                                                             |
| 3    | October       | E-R Model, Relational Data Model. Relational Database Design, Normalization.                                                                                                         |
| 4    | November      | SQL: Types, Components, types, commands manipulation, Data Control, Basic queries. Inbuilt date, string functions, Views.                                                            |

  
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## LESSON PLAN

CLASS - B.Sc. (Comp. Sci.)

SEMESTER - V<sup>th</sup>

Name of Assistant / Associate - Smt. Sushil Yadav

Subject / Paper - Introduction to Internet & Web Technologies

| Unit | Month         | Subject Matter / Syllabus                                                                                                                                                        |
|------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | July - August | Intro. to Internet, Benefits, WWW, H/W & S/W requirements, protocols, Applications, Internet tools.                                                                              |
| 2    | September     | E-Mail mailing list, Internet addressing, ISP, Internet in India. Overview of Internet & its applications, Web Browsers, Search Engines, Categories of Search Engines, HTTP, URL |
| 3    | October       | HTML: Internet Language, Create a Web Page, Linking, Publishing, Text Alignment & lists, fonts Control, Email links & link within a page, forms.                                 |
| 4    | November      | Creating Web Page Graphics, Putting Graphics, Custom Backgrounds & Colors, Creating Animated Graphics Web Page Design & layout, Tables, Using Style Sheets                       |

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