



Indraprastha College for Women University of Delhi

Work Plan for ODD SEMESTER – 2026

Course Name:	B.A. (P)
Paper Title:	Data Mining I
Unique Paper Code:	
Semester:	III
Faculty:	Dr. Manju Bala
Year:	2026

Work Plan			
Unit No.	Learning Objective	Lecture No.	Topics to be Covered
Unit 1	After completing this unit, students will be able to: Explain the basics and importance of Data Mining. Describe the motivation and challenges of Data Mining. Identify different Data Mining tasks and applications. Understand data measurements and data quality issues. Differentiate between supervised and unsupervised techniques. Apply suitable Data Mining methods to real-world problems.	1	Introduction to Data Mining: Motivation and
		2	Challenges for data mining,
		3	Types of data mining tasks, Applications of data mining
		4	Supervised vs. unsupervised techniques,
		5	Data quality
		6	Data measurements
Unit 2	After completing this unit, students will be able to: Explain the importance of data pre-processing in Data Mining. Apply data aggregation and sampling techniques. Perform dimensionality reduction to simplify datasets. Select relevant features using feature subset selection methods. Prepare data for efficient and accurate data mining.	7	Data preprocessing: aggregation
		8	Sampling
		9	dimensionality reduction
		10	Feature subset selection

Unit	Contents/Syllabus
I	Unit 1: Introduction to Data Mining: Motivation and Challenges for data mining, Types of data mining tasks, Applications of data mining, Data measurements, Data quality, Supervised vs. unsupervised techniques
II	Unit 2: Data Pre-Processing: Data aggregation, sampling, dimensionality reduction, feature subset selection,
S. No.	Name of Authors/Books/Publishers
1.	Text Book: 1. Tan P.N., Steinbach M, Karpatne A. and Kumar V. Introduction to Data Mining, Second edition, Sixth Impression, Pearson, 2023.
2.	Additional References: Han J., Kamber M. and Pei J. Data Mining: Concepts and Techniques, 3rd edition, 2011, Morgan Kaufmann Publishers.
3.	Zaki M. J. and Meira J. Jr. Data Mining and Machine Learning: Fundamental Concepts and Algorithms, 2nd edition, Cambridge University Press, 2020.
4.	Aggarwal C. C. Data Mining: The Textbook, Springer, 2015

Paper Components			
Credits	Lecture (L)	Tutorial (T)	Practical (P)
	3		1
Assessment Scheme			
S.No.	Component	Marking Scheme	Total Marks
1	Internal Assessment		30
	• Assignment	12	
	• Class Test	12	
	• Attendance	6	
2.	Continuous Assessment (Tutorial)		40
	• Activity 1		
	• Activity 2		
	• Attendance		

3.	Practical • Continuous Assessment • End Term Written/Practical Exam • Viva		
		10	
		20	
		10	
4.	End Semester Examination		90