AMBALA COLLEGE OF ENGINEERING AND APPLIED

RESEARCH DEPARTMENT OF COMPUTER SCIENCE &

ENGINEERING LECTURE PLAN-(CSE-416N)

NAME OF FACULTY : Mr. Manjit Singh(Theory)

DISCIPLINE : B. Tech. Computer Science and Engineering

SEMESTER : 8TH

SUBJECT : Data Mining

LESSON PLAN DURATION : 11 weeks (April-July, 2021)

WORK LOAD PER WEEK : L: T: P- 4:0:0

Week	Theory	
	Lecture Day	**Topic**
1	1	Introduction to Data Mining
	2	Data Mining Functionalities
	3	Data Mining Systems classification, Integration with Data Warehouse System
	4	Data summarization, data cleaning
2	5	data cleaning
	6	data integration and transformation
	7	data reduction
	8	Data Warehouse: Need for Data Warehousing
3	9	Paradigm Shift, Business Problem Definition
	10	Operational and Information Data Stores

	11	Data Warehouse Definition and Characteristics
	12	Data Warehouse Architecture and Implementation
4	13	Data Warehouse Architecture and Implementation
	14	OLAP
	15	OLAP
	16	Data Mining Primitives
5	17	Query Language and System Architecture
	18	Concept Description
	19	Data generalization, Analysis of attribute relevance
Week	**Theory**	
	Lecture Day	**Topic**
6	20	**Test and Discussion of Unit 1**
	21	Mining descriptive statistical measures in large databases
	22	Data deduplication methodologies
	23	Mining association rules in large databases: Association rule mining
7	24	Mining association rules in large databases: Association rule mining
	25	Mining single dimensional boolean association rules from transactional databases
	26	mining multilevel association rules from transaction databases
8	27	mining multilevel association rules from transaction databases
	28	**Test and Discussion of Unit 2**
	29	Relational databases and data warehouses
	30	correlation analysis

9	31	classification and prediction
	32	classification and prediction
	33	Data redundancy detection and elimination techniques
	34	**Test and Discussion of Unit 3**
10	35	Introduction to cluster analysis
	36	Mining complex type of data
	37	Multidimensional analysis and descriptive mining of complex data objects
	38	Spatial databases
11	39	Multimedia databases
	40	Mining time series and sequence data
	41	Mining World Wide Web, Data Chunking Techniques.
	42	**Test and Discussion of Unit 4**

(IN HOURS)

Manjit Singh