PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY
PANIPAT

DEPARTMENT OF CSE (AI-ML)
LESSON PLAN

Subject Name: - ANN

Branch/Semester: -5th Sem

Subject Code:-PC-CS-AIML-307A

Sr. No.	Lecture No.	Topics To Be Covered	CO Covered	Assignment No	Teaching Methodology
1	L 1	Introduction and Concepts of neural networks,	CO1		White Board
2	L 2	Characteristics of Neural Networks, Applications of Neural Networks	CO1		Smart Board
3	L 3	The biological prototype, Neuron concept	CO1		Smart Board
4	L 4	Single layer Neural Networks, Multi-Layer Neural Networks	CO2		White Board
5	L 5	Terminology, Notation and representation of Neural Networks	CO2	Assignment -1	White Board
6	L 6	Training of Artificial Neural Networks. Representation of perceptron	CO2		White Board
7	L 7	Perceptron learning and training	CO2		White Board
8	L 8	Classification, linear Separability	CO2		Smart Board

9	L 9	Hopfield nets: Structure	CO2		White Board
10	L 10	Training, and applications	CO2		White Board
11	L 11	Back Propagation: Concept, Applications	CO2	Assignment-2	White Board
12	L 12	Back Propagation Training Algorithms.	CO2		White Board
13	L 13	Counter Propagation Networks: Kohonan Network	CO2		White Board
14	L 14	Grossberg Layer & Training	CO2		White Board
15	L 15	applications of counter propagation, Image classification.	CO3		White Board
16	L 16	Bi-directional Associative Memories: Structure	CO2		White Board
17	L 17	retrieving a stored association, encoding associations	CO2		White Board
18	L 18	ART architecture	CO3	Assignment-3	Smart Board
19	L 19	ART classification operation,	CO3		White Board
20	L 20	ART implementation and characteristics of ART	CO3		White Board
21	L 21	Image Compression Using ART,	CO3		White Board
22	L 22	Optical Neural Networks: Vector Matrix Multipliers	CO3		White Board
23	L 23	Hop field net using Electro optical matrix multipliers	CO3		White Board
24	L 24	Holographic correlator, Optical Hopfield net using Volume Holograms	CO3		White Board
25	L 25	Cognitrons and Neocognitrons: structure and training	CO3		Smart Board

26	L 26	CNN, RNN	CO4		Smart Board
27	L 27	LSTM, Attention layers, Applications	CO4		Smart Board
28	L 28	Techniques to improve deep networks: DNN Optimization	CO4		White Board
29	L 29	Regularization	CO4		White Board
30	L 30	AutoML	CO4		Smart Board