

## Lesson Plan of the 3<sup>rd</sup> Semester for session 2024-25

<b>Name of the faculty:</b>	Ms. Malik Neha Dayanand
<b>Designation:</b>	Assistant Professor
<b>Discipline:</b>	Computer Science and Engg.
<b>Semester:</b>	III <sup>th</sup> sem
<b>Subject:</b>	<b>ARTIFICIAL INTELLIGENCE</b>
<b>Subject Code:</b>	PCC-CSE-304G
<b>Lesson Plan duration:</b>	15 weeks
<b>Work Load per week in hours:</b>	Lectures- 03

Week	Lecture day	Topic (Including Assignment/Test)
<b>UNIT – I</b>		
1	1	<b>Introduction:</b> Definition of AI, History of AI
	2	nature of AI problems
	3	examples of AI problems
2	4	<b>Problem solving by search:</b> Uninformed and informed Search
	5	Uninformed Search: Depth First Search (DFS)
	6	Uninformed Search: Breadth First Search (BFS)
3	7	Informed Search: Best First Search
	8	Informed Search: A*
	9	Local Search: Hill Climbing
4	10	Problem Reduction Search: AO*
	11	Population Based Search: Ant Colony Optimization
	12	Population Based Search: Genetic Algorithm
5	13	Game Playing: Min Max Algorithm
	14	Game Playing: Alpha-Beta Pruning.
	15	Revision Unit I
<b>UNIT- II</b>		
6	16	Knowledge Representation: Types of Knowledge
	17	Knowledge Representation Techniques/schemes: Propositional Logic
	18	Predicate Logic
7	19	Semantic nets
	20	Frames
	21	Knowledge representation issues.
8.	22	Rule based systems.

	23	Revision Unit II
	24	Class Test
<b>UNIT – III</b>		
9.	25	<b>Reasoning under Uncertainty:</b> Basics of Probability Theory
	26	Probabilistic Reasoning
	27	Bayesian Reasoning
10.	28	Dempster-Shafer Theory
	29	<b>Planning:</b> Introduction to Planning
	30	Representation of Planning
11.	31	Partial-order Planning.
	32	Revision Unit III
	33	Class Test
<b>UNIT – IV</b>		
12.	34	<b>Learning:</b> Introduction to Learning
	35	Types of Learning: Learning by Induction
	36	Rote Learning
13.	37	Symbol Based Learning
	38	Identification Trees
	39	Explanation Based Learning
14.	40	Transformational Analogy
	41	Introduction to Neural Networks
	42	Expert Systems
15.	43	Current trends in Artificial Intelligence
	44	Revision Unit IV
	45	Class Test