



# RAJASTHAN TECHNICAL UNIVERSITY, KOTA

## Syllabus

### III Year-VI Semester: B.Tech. Computer Science and Engineering

#### 6CS4-05: Artificial Intelligence

**Credit: 2**

**2L+0T+0P**

**Max. Marks: 100(IA:20, ETE:80)**

**End Term Exam: 2 Hours**

SN	Contents	Hours
1	<b>Introduction:</b> Objective, scope and outcome of the course.	01
2	<b>Introduction to AI and Intelligent agent:</b> Different Approach of AI, Problem Solving : Solving Problems by Searching, Uninformed search, BFS, DFS, Iterative deepening, Bi directional search, Hill climbing, Informed search techniques: heuristic, Greedy search, A* search, AO* search, constraint satisfaction problems.	03
3	<b>Game Playing:</b> Minimax, alpha-beta pruning, jug problem, chess problem, tiles problem	06
4	<b>Knowledge and Reasoning:</b> Building a Knowledge Base: Propositional logic, first order logic, situation calculus. Theorem Proving in First Order Logic. Planning, partial order planning. Uncertain Knowledge and Reasoning, Probabilities, Bayesian Networks.	06
5	<b>Learning:</b> Overview of different forms of learning, Supervised base learning: Learning Decision Trees, SVM, Unsupervised based learning, Market Basket Analysis, Neural Networks.	07
6	<b>Introduction to Natural Language Processing:</b> Different issue involved in NLP, Expert System, Robotics.	05
	<b>Total</b>	<b>28</b>