



# Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India

(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned				
		L	T	P	L	T	P	Total	
CPCL703	Artificial Intelligence Lab	--	--	2	--	--	1	1	
		Examination Scheme							Total
		ISE		ESE		Total			
				Practical	Oral				
		40	-		20	60			

<b>Pre-requisite Course Codes</b>	CPC703(Artificial Intelligence)
At end of successful completion of this course, student will be able to	
<b>Course Outcomes</b>	CO1 Ability to analyze and learn problem formulation method(such as state space search)
	CO2 Students will be able to learn different informed and uninformed searching techniques.
	CO3 Students will be able to describe logic programming and basic constructs used in AI programming
	CO4 Students will be able to develop/demonstrate/ build simple intelligent systems using different AI techniques.

Exp. No.	Experiment Details	Ref.	Marks
1	Implementation of Water Jug problem. Problem: Given 3 jugs of capacities: 12, 8 and 5 liters. Our 12 L jug is completely filled. Using these 3 jugs split the water to obtain exactly 6 Liters.	1,3	5
2	Implementation of Tic-Tac-Toe problem with MinMax Algorithm	1	5
3	Implementing N-Queen problem using Backtracking	1	5
4	Study Experiment on Predicate logic	1,3	5
5	Prolog Program to find Sublists of the given list & Reverse of the list	2	5
6	Implementation of Reasoning concept for family tree using Prolog	2	5
7	Study Experiment on OpenNLP	1,4	5
8	Mini Project		5
<b>Total Marks</b>			<b>40</b>

### References:

- [1] Stuart J. Russell and Peter Norvig, "Artificial Intelligence A Modern Approach "Second Edition", Pearson Education.
- [2] Ivan Bratko "PROLOG Programming for Artificial Intelligence", Pearson Education, ThirdEdition.
- [3] Elaine Rich and Kevin Knight "Artificial Intelligence "Third Edition
- [4] Davis E.Goldberg, "Genetic Algorithms: Search, Optimization and Machine Learning", Addison Wesley, N.Y., 1989.
- [5] Han Kamber, "Data Mining Concepts and Techniques", Morgann Kaufmann Publishers.