

Fr. Conceicao Rodrigues College of Engineering Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai - 400050

## Department of Computer Engineering Academic Term II: 23-24

Class: B.E (Computer), Sem – VI Subject Name: Artificial Intelligence Student

Name: Sumit Sanjay Rai Roll No: 9570

Practical No:	8	
Title:	Programming in PROLOG	
Date of Performance:	25/03/2024	
Date of Submission:	01/04/2024	

## **Rubrics for Evaluation:**

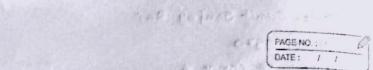
Sr. N o	Performance Indicator	Excellent	Good	Below Average	Marks
1	On time Completion & Submission (01)	01 (On Time)	NA	00 (Not on Time)	
2	Logic/Algorithm Complexity analysis (03)	03(Corr ect )	02(Partial)	01 (Tried)	
3	Coding Standards (03): Comments/indention/Nam ing conventions Test Cases /Output	03(All used)	02 (Partial)	01 (rarely followed)	
4	Post Lab Assignment (03)	03(done well)	2 (Partially Correct)	1(submitte d)	
Tot	Total				

Signature of the Teacher:

## **Post Lab Questions:**

- 1. List all the methods which could be used to solve the tower of Hanoi problem.
- 2. Which is the best approach and why?
- 3. What are the applications of the Tower of Hanoi?

	Name: Sumit Sanjay Rai
	Roll no: 9570 PAGE NO.:
	Class ! TE COM PS A .
	Postlab: Experiment-8.
a . 1 .	The second of th
	List all the methods which could be used to solve the tower of
	tranci broplem.
115	1-Recursion: Devides the problem into smaller subproblems until a
	base case is reached.
	2. Therative approach: Simulates the recursive process using loops and
	Stacks or queves.
Chic	3. Binary representation: Represents the problem using binary numbers
	and manipulates them to determine moves.
	4. Mathematical formula: Uses formulas to colculate the minimum
	number of moves without -solving recordively.
	5. Dynamic programming: otores and rouses intermediate results to
	avoid redundant calculation.
	6- (Traph theory: Modes the problem as a graph and uses traversal
	algorithms to find the shortest path.
	and the state of t
6.2	Which is the best apprach and why?
Ans.	
	problem because it naturally aligns with the problem's recursive nature
	Tit elegantly breaks down the problem into analler subproblems, which
	simplifies the solution process. Additionally, it typically results.
	in cleaner and more readable code compared to other metro
	making it easier to maintain and understand. Overall, the recurs
	approach ofters a straightforward and efficient adultion strategy for
	the Tower of Hanci Problem.
3.	What are the applications of the Tower of Hanois
Ans.	T
	recursion and algorithmic design.
	2. Operations research: It can model logistical and schedulin
-	problems where the objective is to minimize the number of



	PAGE NO.: ODATE: / /					
	moves or time required to complete a task.					
	3. Mathematical theory: It provides an example for exploring					
	the properties of recursive algorithms, combinatorial mathematics and					
O AY	graph theory.					
9	4. Psychology: It has been used in cognitive psychology research					
71	to study problem -solving strategies and decision - making processes					
gt cx	5. Education: It is used as a puzzle or broin etcaser in educational					
	Settings to develop critical trainking and problem-solving skills.					
1000	the set there and their property to the set of the set of					
\$	Addition of the state of the st					
	TO REAL PROPERTY OF THE PARTY O					
<u> </u>	continue and have at only and an amount of					
practials	SEVERT DE PRINC AND LE SERVE SE HOME OF					
	a word assembles					
	to depend on the my district that programs of the same supplied to					
e 1 5 7	the fire was less process for a process to a process to					
Secretary of the second	the transfer of the day of the property and the first of					
a digita	Mary Long to Arrest Martin Color Color Control of the Color					
	Weiding description In					
STATE LANS	The Street of the Control of the Con					
2000	ST POLYNO P TURBOTO MATTER A STORE					
	Anstron deshiore for an					
1						