

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:	6	
Title:	Implementation of AO* algorithm ce: 11/03/2024	
Date of Performance:		
Date of Submission:	18/03/2024	

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	al				

Signature of the Teacher:

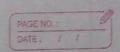
Post Lab Assignment:

- 1. What is the difference between A* and AO* algorithm?
- 2. Why AO^* algorithm only works when heuristic values are underestimated?

Name : Somit Sanjay Rai

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Class : TE COMPS A



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g.1.	What is the difference between A* and Ao* algorithm?						
Has-	Aspect	A* Algorithm	Ao* Algorithm				
486	Optimity	Great anticed optimal solution					
			Solution ·				
am	Heunstie	Requires admissible	works with under-				
	Guality	heunistic	estimated heuristics.				
14.55		and the second second second	A Comment of the Park of the P				
	Solution Quality	Always provides optimal	May not provide				
110	0	Solution	optimal solution.				
		and the second	The second of the second				
	Exploration	Efficient guided search	Iterative refinement				
- 13		Landauer C. Conf. Com Spring	of estimates.				
3	V Man age desert	at many amount of a second	Total Total Control				
	Performance	More efficient with	Better in scenarios				
		admissible heurisht	with underestimated				
11/06	Call Control		heurishics.				
			A ROLL ON THE STREET				
9.2-	- hilly A0 algorithm only works when heuristic values are una						
	estimated ?						
Ans.	1. Improper Heuristic Handling: Ao* may coverage to suboptimal						

- Ans. 1. Improper Heuristic Handling: Aot may coverage to suboptimal solutions if heuristic volves are overestingted.
 - a. Convergence Issues: Overestimated heuristics hinder Aot's iterative refinement process ; leading to unreliable solutions.
 - 5. Futility Condition Viabtion: Overestimated heuristics may prevent Aot from terminating early, resulting in unnecessary captoration.
 - 4. Inefficient Exploration: At might waste resources exploring unprecessary parts of the Gearch space with overestimated houristics.
 - 5. Performance Degradation: A0's performance suffers with overestimated heuristics, resulting in longer convergence times and sub-