

Reg. No.:

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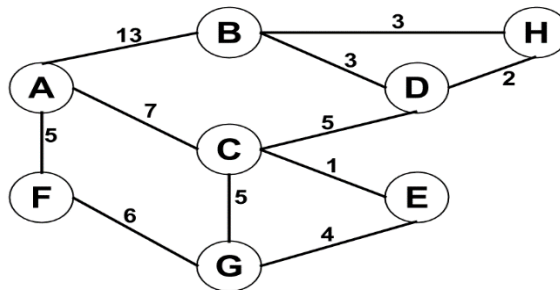
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Mid-Term Examinations – October 2021

Programme	: B.Tech.[BCE,BCY]	Semester	: Fall 2021-2022
Course	: Fundamentals in AI & ML	Code	: CSA 2001
Faculty	: Dr. Nidhi Mishra	Slot/Class No.	: E11+E12+E13/0040
Time	: 1½ hours	Max. Marks	: 50

Answer all the Questions

Q. No.	Question Description	Marks
1	Examine the performance of Goal Based and Utility based agent with architecture.	10
2	Write the steps performed in 8-puzzle problem in context of problem-solving agent.	10
3	Apply Uniform Cost Search algorithm technique to find the goal node H. Assume start node A. Explicitly write down the step at each stage.	10



4 Solve 8 -Puzzle Problem using Hill Climbing Technique. Write all the steps while performing Computation.

1	2	3
	4	6
7	5	8

Initial State

1	2	3
4	5	6
7	8	

Goal State

5 Discuss Hypothetical Syllogism and Disjunctive Syllogism inference rule with an example and truth table.

Translate the following sentences in to First Order Logic (FOL):

- 1) All girls like coffee.
- 2) Every man respects his parents.
- 3) A doctor likes bob.
- 4) Some frogs are not green.

