MCSC 102: Artificial Intelligence
M.Sc. (Computer Science)
Semester I
Minor Exam, January 2022

Time: One Hour **Max. Marks: 15**

1. Differentiate between the following giving examples

    a. Goal based agent and Utility based agent
    b. Greedy Best first search and A* algorithm

[2+2]

2. Using constraint satisfaction algorithm, solve the following cryptarithmetic problem:

```
  ROW
+ROW
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FORM
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```
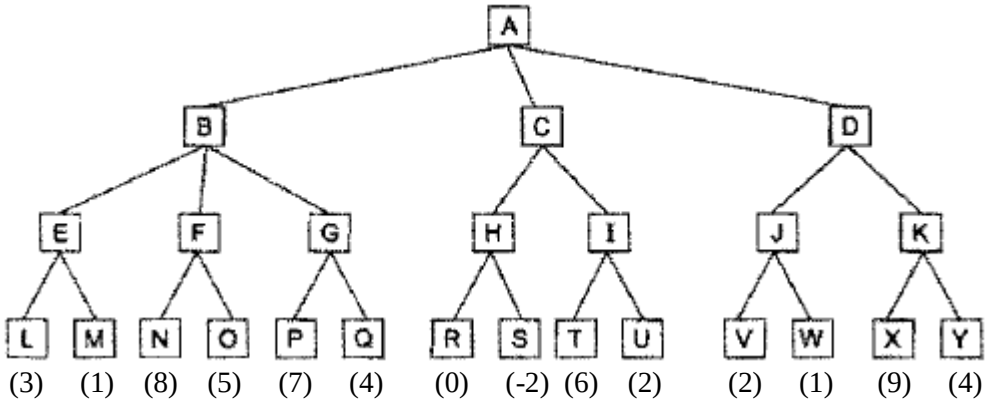

You are required to solve the problem step by step and give reasons for choosing a particular value and path.

[5]

3. Given below a game tree (assume that the first player is a maximizing player):



a) What move should be chosen under min-max procedure? Explain your answer.
b) What nodes would not be needed to be examined using α-β pruning procedure? Give reasons for pruning detailing the steps.

[2+4]