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VI[TH] SEMESTER B.Tech.(Computer Engineering)

MID SEMESTER EXAMINATION (March, 2019)

CO304 ARTIFICIAL INTELLIGENCE

Paper Code

Time: 1:30 Hours **Max. Marks: 25**

Note: Answer all questions.
Assume suitable missing data, if any.

Q1. Answer to the point following:

(i) Describe the characteristics of the control strategy. Is breadth first search a control strategy? justify .

(ii) Compare and contrast Depth first search and Hill Climbing.

(iii) Define the term admissibility of a search procedure. Which search procedure is admissible?

(iv) Which problem solving approach used in Means End Analysis search procedure?

[4x2]

Q2. (i) Why best search is better than hill climbing

(ii) Work out few steps of A* algorithm for slide back puzzle having following moves.

I. A tile may move to adjacent cell with unit cost
II. A tile may hope another tile with a cost of 4

Initial and goal nodes are described as:

	1	3	2

1	2	3	

(iii) Design the procedure to revise cost upward of AO*algorithm and illustrate the steps using suitable search tree

[2,4,4]

Q3. For the graph in Fig (1), find the max value at the root node by applying mini max search. Also show alpha beta pruning.

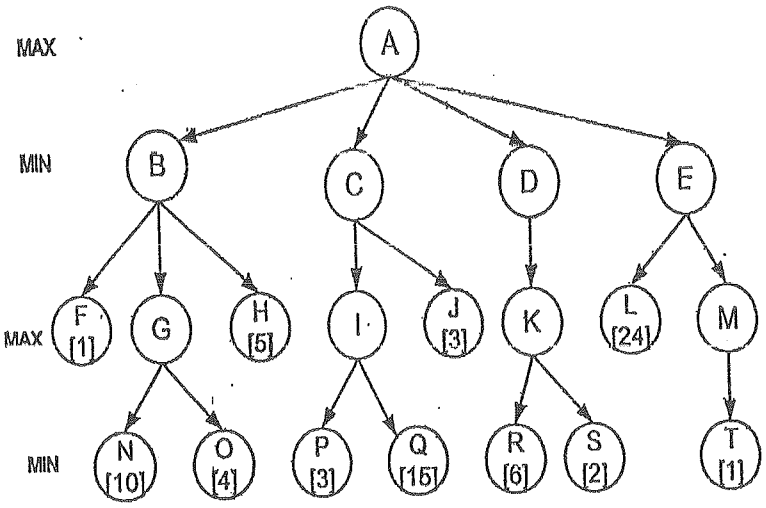
P.T.O.

[3]

Q4. (i) Represent the sentence in clause form: Any student who is intelligent or hard working gets a good placement

(ii) Given fact: A→ (B ^ C) and A, Use resolution procedure to prove that B is true.

[2,2]



Fig(1)