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# MCADD-605

## M.C.A. (Integrated), VI Semester

Examination, May 2022

### Artificial Intelligence

*Time : Three Hours*

*Maximum Marks : 70*

*Note:* i)  Attempt any five questions.

ii) All questions carry equal marks.

1. a)  What is LISP? Discuss Lambda expression and function definition in LISP.

   b)  Define Artificial Intelligence. List the applications of Artificial Intelligence.

2. a)  Explain list manipulation functions with examples.

   b)  Explain the following uninformed search strategies with examples.

   i)   Breadth First Search

   ii)  Depth First Search

3. a)  Write an algorithm for Hill climbing. Solve the 8 puzzle problem using Hill climbing?

   b)  Solve the constraint satisfaction problem

   SEND
   + MORE
   ———
   MONEY

4. a) Explain Exhaustive Searches? Discuss Space Search.

   b) Describe briefly the various problem characteristics.

5. a) What are various components of planning systems? Explain Goal Stock Planning.

   b) Write and explain AO* algorithm.

6. a) Explain alpha-beta cut-offs algorithm with example.

   b) Explain Natural language processing. What are the levels of knowledge used in language understanding?

7. a) Explain parsing techniques in natural language processing.

   b) Draw the schematic diagram of an expert system. Explain all the relevant components.

8. Write short notes (any three)

   a) Frame
   b) Learning
   c) MYCIN
   d) Planning
   e) AND/OR graph

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