Code: 9F00405c

MCA IV Semester Regular & Supplementary Examinations September/October 2014
ARTIFICIAL INTELLIGENCE
(For students admitted in 2009, 2010, 2011 and 2012 only)

Time: 3 hours   Max Marks: 60

Answer any FIVE questions
All questions carry equal marks
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1   (a)   Explain the searching strategies in detail.
    (b)   What is heuristic function?

2   (a)   Apply the constraint satisfaction algorithm to the following problem:
                        SEND
                    + MORE
                    ─────────
                    MONEY
          The constraints are:
          (i) No two letters share the same value.
          (ii) The sum of the digits must be as shown in the problem.
          (iii) Each letter has the value between 0 & 9.
    (b)   Explain simulated annealing with example.

3   (a)   Explain optimal decision in games.
    (b)   Explain in detail about logical agents.

4   (a)   What is meant by unification and lifting?
    (b)   Give the differences between forward and backward chaining.

5   (a)   What are the problems in classical planning?
    (b)   Explain partial order planning.

6   (a)   Describe any one statistical learning method.
    (b)   Explain learning by analogy and rote learning.

7   (a)   Define expert system. Give important features of expert system.
    (b)   Describe artificial neural system.

8   (a)   Describe expert system life cycle.
    (b)   Design an expert system for disease recognition.

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