Code: 9A05605

B.Tech III Year II Semester (R09) Supplementary Examinations December/January 2014/2015
ARTIFICIAL INTELLIGENCE
(Computer Science and Engineering)

Time: 3 hours   Max Marks: 70

Answer any FIVE questions
All questions carry equal marks
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1   What is a production system? List various components of a production system and explain each component in detail.

2   (a)   Explain learning heuristics from experience.
    (b)   Write and explain the general graph-search algorithm.

3   (a)   Explain the functionality of a knowledge based agent.
    (b)   Give a BNF grammar of sentences in propositional logic.

4   What is meant by ontological commitment and epistemological commitment? Discuss formal language and their ontological and epistemological commitments.

5   Explain the following:
    (a)   Reasoning systems for categories.
    (b)   Reasoning with default information.

6   Explain posterior or conditional probability with examples

7   (a)   How large a gain should require in order to split on a particular attribute in decision tree induction?
    (b)   Explain the decision tree algorithm.

8   (a)   Name different fuzzy set operations. Explain them.
    (b)   Explain fuzzification and defuzzification of fuzzy logic based system.

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