[07 – 4122]

IV/IV B.Tech. DEGREE EXAMINATION.

First Semester

Computer Science and Engineering

ARTIFICIAL INTELLIGENCE

(Common with IT)

(Effective from the admitted batch of 2006-2007)

Time : Three hours   Maximum : 70 marks

Questions No. 1 is compulsory.

Answer any FOUR from the remaining.

All questions carry equal marks.

Answer all parts of any question at one place.

1.   (a)   Explain Turing test.

   (b)   What do you mean by local maxima with respect to search techniques?

   (c)   Represent the following sentence in predicate form. 'All the children likes sweets"

(d) What are the differences and similarities between problem solving and planning?

(e) Define Bayes rule.

(f) Explain control knowledge.

(g) What is an Expert System shell? Explain its use.

2. (a) What is production system? Explain the characteristics of production system.

(b) Explain the solution of Water Jug Problem in terms of Artificial Intelligence.

3. (a) Explain A* algorithm.

(b) Explain constraint Satisfaction algorithm.

4. (a) Explain unification algorithm used for reasoning under predicate logic with an example.

(b) Explain forward chaining process in detail with an example.

5. (a) Explain the method of handling approximate inference in Bayesian Networks.

(b) Explain Dempster-Shafer theory.

6. (a) Discuss Semantic Nets.

(b) Explain how scripts are handled.

7. (a) Explain the components of a planning system.

(b) Explain goal state planning procedure.

8. (a) Discuss Natural language pragmatic processing.

(b) Write a short notes on Explanation.

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