

[07 - 4122]

IV/IV B.Tech. DEGREE EXAMINATION

Computer Science and Engineering

First Semester

ARTIFICIAL INTELLIGENCE

(Common with IT)

(Effective from the admitted batch of 2006-2007)

Time: 3 Hours

Max. Marks: 70

Question 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) What is meant by Heuristic Search? Explain.
(b) Distinguish between procedural Vs declarative knowledge.
(c) What is Abduction? Explain.
(d) Explain Morphological analysis.
2. (a) Explain production system characteristics.
(b) Explain steepest - Ascent hill climbing technique.
3. (a) Explain A* algorithm.
(b) Explain Means - End analysis.
4. (a) Explain Resolution algorithm.
(b) Discuss Forward Vs Backward Reasoning.

5. (a) Explain logics for Nonmonotonic Reasoning.
(b) Explain Bayes Thebrem.
6. (a) Construct semantic net representation for the following:
(i) Pompeian (Marcus), Blacksmith (Marcus)
(ii) Mary gave the green flowered vase to her favourite cousin.
(b) Show a conceptual dependency representation of the sentence:
John begged Mary for a pencil. How does this representation make it possible to answer the question. Did John talk to Mary?
7. (a) Explain Goal state planning.
(b) Discuss Semantic analysis.
8. Write a short notes on
(a) Rule based system architecture
(b) Explanation
(c) Control knowledge