

Code No: NR-48

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MCA IV Semester Supplementary Examinations January 2010

ARTIFICIAL INTELLIGENCE AND NEURAL NETWORKS

Time: 3 hours

Max.Marks:60

Answer any FIVE questions

All questions carry equal marks

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- 1.a) Define artificial Intelligence techniques.
b) Define production system.
c) Explain the state space representation of water jug problem.
2. Discuss the following in detail
a) Hill climbing
b) Best first search
c) Constraint satisfaction
3. What is resolution? Explain resolution and unification algorithms with the help of an example.
- 4.a) Discuss with examples procedural versus declarative representations. Which are its advantages? Give reasons.
b) Explain how a semantic network gets evolved into a frame structure with an example.
- 5.a) What is hierarchical planning? Explain with own example.
b) Briefly explain about the structure and functions of biological and artificial neural networks.
- 6.a) What are the four classes of grammars? Explain.
b) Explain machine translation.
7. Explain various types of learning.
- 8.a) Write a PROLOG program to check that whether a given string is a palindrome or not.
b) Explain the basic LISP functions.
