

UNIVERSITY OF PUNE
[4364]-795
B. E.(Information Technology Engg.)Examination - 2013
ARTIFICIAL INTELLIGENCE
(2008 Pattern)

[Total No. of Questions:12]
[Time : 3 Hours]

[Total No. of Printed Pages :2]
[Max. Marks : 100]

Instructions :

- (1) Answers to the two sections should be written in separate answer-books.*
- (2) Neat diagrams must be drawn wherever necessary.*
- (3) Assume suitable data, if necessary.*

SECTION-I

- Q1 a) What is the Turing Test? What is its relevance with artificial Intelligence? [8]
b) What is an Intelligent Agent? Detail the architecture of an agent. [8]

OR

- Q2 a) Write a detailed note on Problem Solving Agent. [8]
b) Explain any two applications of Artificial Intelligence. [8]
- Q3 a) Explain AO* algorithm with example. [10]
b) Explore the cryptarithmic problem solution LOGIC+LOGIC =PROLOG using Constraint Satisfaction algorithm. [8]

OR

- Q4 a) Write and explain A* Algorithm [10]
b) List and explain all Production system characteristics for AI system. [8]
- Q5 a) What is Nonmonotonic Reasoning? Explain with example. [8]
b) Explain process of resolution using predicate logic. [8]

OR

- Q6 a) What is conceptual dependency? Explain in detail. [8]
b) Detail syntax analysis phase of NLP. [8]

SECTION-II

- Q7 a) Explain Goal Stack Planning using the example in Blocks' world? [10]
b) Explain in detail the various components of a typical planning system? [8]

OR

- Q8 a) Explain Hierarchical planning with example. [8]
b) Describe Waltz's algorithm in detail. [10]

- Q9 a) Discuss any case study of an Expert System. [7]
b) Explain Supervised, Unsupervised and Reinforcement Learning. [9]

OR

- Q10 a) What is Rote Learning? Explain with example. [6]
b) Explain Perceptron Learning in detail. [10]

- Q11 a) Write a note on Parallel AI. [8]
b) Explain backtracking principle in PROLOG with example [8]

OR

- Q12 a) Write a note on distributed AI. [6]
b) Explain the process of recursion with reference to Factorial program in PROLOG. [10]