

BCA / D-15
ARTIFICIAL INTELLIGENCE
PAPER-BCA-353

Time Allowed: 3 Hours

Maximum Marks: 80

Note: Attempt five questions in all, selecting at least one question from each Unit.
Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) Define A.I.?
(b) Name any two Expert systems.
(c) What is Robotics?
(d) Write the names of Heuristic search techniques.
(e) What are major advantages of Speech recognition?
(f) Explain need of Natural Language Processing.

UNIT-I

2. (a) What is Knowledge and its pyramid?
(b) Differentiate between Humanbeing and Computer.
(c) What is revised turing test?
2. Explain the application areas of A.I. with example.

UNIT-II

4. (a) Define Expert System, and write its components
(b) Differentiate between Rule-based and Model-based Expert systems.
5. Explain various steps for developing an Expert system with example?

UNIT-III

6. Write note on the following :
(a) AO* Algorithm.
(b) Mean End Analysis.
(c) Breadth first Search.
7. (a) Differentiate between Brute Force and Heuristic search techniques.
(b) Explain Beam Search algorithm.

UNIT-IV

8. (a) Explain the problems in Natural Language Processing.
 (b) What are the major goals of Natural Language Processing.
9. Explain the following :
 - (a) Parts of Robot.
 - (b) Mobile Robots.