## UNIT-IV

- 8. Explain the process of Natural Language Processing with the help of an example. What are the reasons because of which a natural language is inadequate to draw logical conclusions?
- 9. What do you understand by neural networks? Explain in brief, neural network architecture. Give an example of an expert system based on neural networks.



## 56083

# MBA 2 Year 4th Semester (N.S.) Examination-May, 2016

### ARTIFICIAL INTELLIGENCE

Paper: MBA-415

Time: 3 hours

Max. Marks: 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note: Attempt all 8 parts of the 1st question in Section-A. Attempt four questions selecting one question from each Unit in Section B. All questions carry equal marks.

### SECTION - A

- 1. Explain the following in brief:
  - (i) Artificial Intelligence
  - (ii) AI in business

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- (iii) Expert system
- (iv) Problems in hill climbing
- (v) Means-ends Analysis
- (vi) Knowledge representation
- (vii) Semantic network
- (viii) Symbolic reasoning

#### **SECTION - B**

#### UNIT - I

- (a) Illustrate through suitable example, how
   AI helps in solving problems.
  - (b) Describe the essential applicability and utility of state space search in defining a problem.
- 3. Explain the algorithm of depth first search and breadth first search. Also discuss their relative advantages and disadvantages.

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#### UNIT - II

- 4. Explain the term Heuristic Search. List out and discuss the various heuristic search techniques in brief.
- 5. What do you understand by Problem Reduction? Discuss the basic elements in different types of problem reduction mechanisms.

#### UNIT - III

- 6. (a) Explain different rules and notations used to represent knowledge in predicate logic.
  - (b) Semantic Networks have been criticized for using ad-hoc representations, arbitrary links and unclear semantics. Comment on the statement.
- 7. (a) What are frames? Why are frames useful? What are the properties of frames?
  - (b) Explain the Conceptual Dependency formalism for knowledge representation.

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