

Exam.Code:0917  
Sub. Code: 6788

1129  
B.E. (Computer Science and Engineering)  
Fifth Semester  
CS-503: Artificial Intelligence

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

- I. Attempt the following:-
- a) Define Generate and test procedure.
  - b) Discuss formula for Bayes theorem and meaning of symbols in formula.
  - c) What is fuzzy modeling?
  - d) Discuss role of scripts.
  - e) Define decision tree base expert systems. (5x2)

UNIT - I

- II. Discuss State Space representation and production systems in detail. (10)
- III. Discuss Alpha-Beta cutoff technique with an example. Differentiate between Minimax and Alpha-Beta cutoff techniques. (6+4)
- IV. a) Consider the following sentences:
- i) John likes all kinds of food.
  - ii) Apples are food.
  - iii) Bread is food.
  - iv) Anything anyone eats and is not killed by is food.
  - v) Bill eats peanuts and is still alive.
  - vi) Sue eats everything Bill eats.
- Prove that "John likes peanuts" using resolution.
- b) Discuss frames with help of an example. (6+4)

UNIT - II

- V. Write in short for different forms of learning with examples. What is main role of intelligent agents? (7+3)
- VI. Discuss arithmetic operations on fuzzy sets with examples. What are linguistic variables and how they are in fuzzy logics? (5+5)
- VII. Write short notes on: Baye's theorem, propositional logic and non monotonic expert system. (3+3+4)

x-x-x