Exam.Code:0917
Sub. Code: 33436

2125

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 Section.

x-x-x

1. Briefly explain the following:
   (a) Unification
   (b) Min-Max search
   (c) Bayes Theorem
   (d) Planning Problem
   (e) Multi Agent Planning **(5x2=10)**

Section-A

2. (a) Discuss the three hill climbing issues? **(5)**
   (b) Differentiate between A* and Best first search techniques with example(s). **(5)**

3. (a) What are the different approaches to knowledge representation? **(5)**
   (b) Discuss iteration in Prolog using a suitable example. **(5)**

4. (a) Discuss the syntax and semantics of Predicate Logic. **(5)**
   (b) Discuss any three applications of Artificial Intelligence. **(5)**

Section-B

5. Enumerate the different types of Learning Agents. Discuss the basic building blocks of any two of them using a suitable diagram. **(10)**

6. Describe the architecture of an expert system. Differentiate between a decision tree-based and a rule-based expert system. **(10)**

7. Discuss Fuzzification and Defuzzification illustrating any two methods of each in detail with example. **(10)**

x-x-x