(15)

Total No. of Questions : 12]

SEAT No. :

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[4959]-207

B.E.(Computer Engineering)

c:ARTIFICIAL INTELLIGENCE

(2008 Course)(Semester-I) (Elective-I) (410444)

Time :3Hours] *[Max. Marks : 100*

Instructions to the candidates:

1) *Attempt three questions from section-I and three questions from section-II.*
2) *Answer to the two sections should be written in separate books.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Assume suitable data if necessary.*

SECTION-I

Q1) a) Explain four approaches of artificial intelligence. **[8]**

b) Explain an architecture of learning agent. **[8]**

OR

Q2) a) Explain PEAS description for any suitable example. **[8]**

b) Explain the foundations of Artificial Intelligence. **[8]**

Q3) a) Explain any one informed search technique. **[8]**

b) Write a note on Local search techniques. **[8]**

OR

Q4) a) Describe an evaluation criteria for search techniques with a suitable example **[8]**

b) Explain the Hill-climbing algorithm for solving the traveling salesperson problem(TSP) is a touring problem in which each city must be visited exactly once **[8]**

Q5) a) Describe a Mini-Max algorithm for game playing. **[8]**

b) Solve the following Cryptarithmetic using CSP

FORTY+TEN+TEN=SIXTY **[10]**

OR

P.T.O.

Q6) a) Describe various approaches for solving CSPs. **[10]**

b) Explain Alpha-Beta Search Algorithm with suitable example. **[8]**

SECTION-II

Q7) a) Explain Resolution procedure in FOL **[8]**

b) Explain the basic representations for planning. **[8]**

OR

Q8) a) Explain the procedure for conversion of FOL to CNF. **[8]**

b) What is partial- order planning? Explain a suitable example. **[8]**

Q9) a) Write a note on decision trees **[8]**

b) What are the axioms of probability? Explain bayes' rule **[10]**

OR

Q10) a) Explain various forms of Learning? Describe supervised Learning. **[10]**

b) Write a note on decision trees. **[8]**

Q11) a) Explain Syntactic Analysis with a suitable example. **[8]**

b) Explain the components for designing an Expert System. **[8]**

OR

Q12) a) Explain the steps in natural language understanding. **[8]**

b) Choose any one case study and design an Expert System. **[8]**