Total No. of Questions : 12]

SEAT No. :

P1804

[Total No. of Pages : 2

[4859]-207
B.E. (Computer Engineering)
c-ARTIFICIAL INTELLIGENCE
(2008 Course) (Semester-I) (Elective-I)

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

Instructions to the candidates:

1) ***Answer 3 questions from section-I and 3 questions from section-II.***
2) ***Answers to the two sections must be written in separate books.***
3) ***Neat diagrams should be drawn wherever necessary.***
4) ***Use of logarithmic table, slide rules, Mollier charts, electronic pocket calculator and stream table is allowed.***
5) ***Assume suitable data wherever necessary.***

SECTION-I

Q1) a) What are intelligent agents? Explain the architecture of a typical agent. **[8]**

b) Define the term Artificial Intelligence. Explain two applications of AI. **[8]**

OR

Q2) a) Explain in detail what is meant by task environment. Illustrate with example. **[8]**

b) What is the role of table driven agent program in simple reflex agent? Explain the functions of model based reflex agents. **[8]**

Q3) a) Explain A* Algorithm with suitable example. How is it possible to avoid loops in A*. **[10]**

b) What is Means ends analysis. Explain with example. **[8]**

OR

Q4) a) What is hill climbing? Explain Plateau, ridge, local maxima and global maxima. **[10]**

b) How to evaluate the performance of an algorithm? How does uniform cost search use algorithm's performance. **[8]**

Q5) a) Explain alpha beta cut off with an example. Assume a sample game tree for explanation. **[8]**

b) Explain Constraint satisfaction problem with example. **[8]**

OR

P.T.O.

Q6) Write short notes on: **[16]**

a) Backtracking for CSP.

b) Evaluation functions for games.

c) Local search for CSP.

d) Partially observable games.

SECTION-II

Q7) a) Explain goal stack planning with an example of blocks world. **[8]**

b) Explain how planning problem is expressed in STRIPS. **[10]**

OR

Q8) a) Comment on Non linear planning and hierarchical planning. **[8]**

b) State the rules for converting the well formed formula to clause form with example. **[10]**

Q9) a) Describe any two learning methods. **[8]**

b) Explain fuzzy set and crisp set. Mention applications of fuzzy logic. **[8]**

OR

Q10)a) What are the basic axioms of probability? Why are they reasonable. **[8]**

b) Define the Bayes rule and explain its use with example. **[8]**

Q11)a) Give detailed architecture of expert system and explain its components. **[8]**

b) Explain the various phases of NLP with an example. **[8]**

OR

Q12)a) What is the difference between expert systems and traditional system? Comment on advantages and disadvantages of expert systems. **[8]**

b) Write short notes on Parsing. **[8]**

●●●●●