

6E3207

Roll No. _____

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B.Tech.VI Sem. (Main & Back) Exam. May. 2013

Computer Engg.

6CS6.2 Artificial Intelligence

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

Instructions to Candidates:

Attempt any **five question**. selecting **one question** from **each unit**. All questions carry **equal marks**. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly.

Units of quantities used/calculated must be stated clearly.

Use of following supporting material is permitted during examination.

1. _____ NIL _____ 2. _____ NIL _____

UNIT - I

- Q.1. (a) Define the production systems. Explain with suitable example. [8]
(b) Differentiate the breath first search and depth first search in detail. [8]

OR

- Q.1. (a) What are the controls strategies? Explain any one with example. [8]
(b) Explain the concept of AND – OR Graph search with suitable example. [8]

UNIT - II

- Q.2. (a) What is knowledge representation? What are the problems facing representing knowledge? [5]
(b) What is predicate logic? Differentiate propositional and predicate logic. [6]
(c) Explain non monotonic reasoning with suitable example. [5]

OR

- Q.2. (a) Explain the close world assumption to deal with incomplete knowledge with a suitable example. [5]
(b) Compare monotonic and non monotonic reasoning. [6]
(c) What are resolution principles? Explain with suitable example. [5]

UNIT – III

- Q.3. (a) How fuzzy logic is different from conventional binary logic? Explain it with appropriate example. [5]
(b) Differentiate forward and backward reasoning. [5]
(c) What are the frames? Explain with suitable example. [6]

OR

- Q.3. (a) Define the theory of conceptual dependency. Explain with diagram. [6]
(b) Explain Baye's theorem with example. rtuonline.com [5]
(c) Explain the concept of semantic net in knowledge representation. [5]

UNIT – IV

- Q.4. (a) What are game playing techniques? Explain minimax procedure with example. [5]
(b) What is natural language processing? Explain with example. [5]
(c) Explain the goal stack planning approach for solving the compound goals. [6]

OR

- Q.4. (a) What is block world problem? Explain with an example. [6]
(b) What is the need of Alpha – Beta strategy. Explain with example. [5]
(c) What is morphological analysis ? Explain with example. [5]

UNIT – V

- Q.5. (a) What do you mean by learning? Explain any one technique which is used in learning? [6]
- (b) Define neural network and explain its application. [5]
- (c) What is expert system? Explain with example. [5]

OR

- Q.5. (a) Explain single layer perception model of the neural network. What are its features? [5]
- (b) Explain expert system with a suitable example. [6]
- (c) Differentiate the “Learning by taking advice” and “Learning by example” with an example. [5]