

6E3207

Roll No.

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**B. Tech. VI Sem. (Main & Back) Exam., May/June-2014**

**Computer Engineering**

**6CS6.2 Artificial Intelligence**

**Time: 3 Hours**

**Maximum Marks: 80**

**Min. Passing Marks: 24**

**Instructions to Candidates:-**

*Attempt any **five** questions, 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.*

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*Units of quantities used/ calculated must be stated clearly.*

*Use of following supporting material is permitted during examination.*

1. \_\_\_\_\_

2. \_\_\_\_\_

### **UNIT-I**

Q.1 (a) Explain artificial intelligence with suitable example. [8]

(b) Write the characteristics of production system, with various types of production systems. [8]

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Q.1 (a) Write the definition of Artificial intelligence & explain A\* & AO\* algorithm. [8]

(b) Discuss comparison between DFS & BFS with various types of control strategies. [8]

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## **UNIT-II**

- Q.2 (a) Explain Approaches to knowledge representation using predicate logic with example. **rtuonline.com** [8]
- (b) Explain issues in knowledge representation. [8]

**OR**

- Q.2 (a) Explain computable functions & predicates. [8]
- (b) What is unification algo? Explain with examples. [8]

## **UNIT-III**

- Q.3 Explain Baeyes' theorem & prove how Fuzzy logic is different from binary logic with example. [16]

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- Q.3 What are the concepts of semantic net in knowledge representation? Explain the theory of conceptual dependency using suitable diagram. [16]

## **UNIT-IV**

- Q.4 (a) Explain the algo of minimaxi search procedure with suitable diagram of two-ply search & backing up the value of two-ply search. [8]
- (b) Why does the search in game playing always proceeds forward from the current position rather than backward from goal state? [8]

**OR** **rtuonline.com**

- Q.4 (a) What is Alpha – Beta planning strategy? Explain its need with example. [8]
- (b) What do you mean by natural language processing? Explain in brief. [8]

- Q.5 (a) What do you mean by expert system? Explain “MYCIN” in depth with block diagram. [8]
- (b) Explain the concept of hopfield neural network with suitable sketch with its applications. [8]

**OR**

- Q.5 (a) What are the techniques used in measuring? Explain. rtuonline.com [5]
- (b) How “learning by example” is different from learning by taking advice? Explain it giving suitable example. [6]
- (c) What are the issues of common sense? [5]