

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.*

*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]

OR

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]

## UNIT-II

- Q.2 (a) Explain Approaches to knowledge representation using predicate logic with example. [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]

### OR

- 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

- 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]

## UNIT-V

- 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. [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]