

- (ii) Thematic role fi (5)
(iii) Uniformed sear (5)
(iv) Bayes Network (5)

Roll No.

23074

**M.Tech. 3rd Semester (Computer
Engineering) Examination-
December, 2016**

KNOWLEDGE BASED SYSTEM DESIGN

Paper : MTCE-701-A

Time : 3 hours

Max. Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt any five questions.

1. (i) What do you mean by Logic ? Explain.

(10)

(ii) Give a complete description about semantic Tableaux.

(10)

2. What do you understand by Normal forms ?

Explain the following (20)

(i) Skolem standard

(ii) Prenex Normal form

3. (i) Explain in detail about the architecture

of rule based system with the help of

diagram. (10)

(ii) What do you mean by forward and

backward chaining? (10)

4. Give a complete definition about semantic

networks. How is it different from partitioned

networks? Also explain the parallel implementation

of semantic nets. (20)

5. Explain the following :

(i) A* algorithm (10)

(ii) Iterative deepening search algorithm (10)

6. (i) Define Agent. Explain in detail about its

types and applications. (10)

(ii) Explain the probabilistic method to

manage uncertainty. (10)

7. Define Expert system. Draw its architecture

and explain its components. Also explain its

characteristics and compare it with

conventional systems. (20)

8. Write short note on the following :

(i) Logic Programming in Prolog (5)