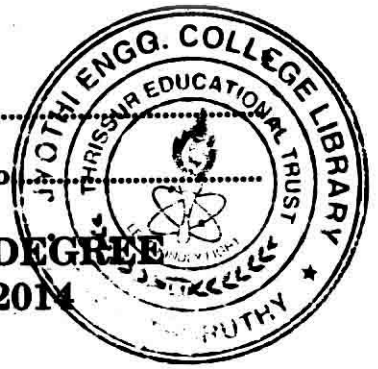


C 62942

(Pages : 2)

Name.....

Reg. No.....



**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE
[SUPPLEMENTARY] EXAMINATION, APRIL 2014**

(2009 Scheme)

IT 09 702 – NATURAL LANGUAGE PROCESSING AND KNOWLEDGE BASED SYSTEMS

Time : Three Hours

Maximum : 70 Marks

Part A

Answer all questions.

1. State the goal for NLP.
2. Define link and root.
3. What are procedural rules?
4. What is linkage reference?
5. Define direct inference in declarative representation.

(5 × 2 = 10 marks)

Part B

Answer any four questions.

1. Give the applications of NLP.
2. Explain Top-Down chart parsing algorithm.
3. Write notes on deterministic parsers.
4. Differentiate between declarative and procedural knowledge.
5. Brief on the components used to construct script.
6. Write about conflict resolution in production system.

(4 × 5 = 20 marks)

Part C

Answer all questions.

1. (a) Write notes on representing sentence structure.

Or

- (b) Explain the methods of evaluating language understanding systems.

Turn over

2. (a) Using the following unification grammar, draw the DAGs for the two NP structures as they are when they are first constructed by the parser and then give the DAG for the complete sentence, *The fish is a large one.*

1. $S \rightarrow NP VP$	$INV = -$ $VFORM_2 = pres$ $AGR = AGR_1 = AGR_2$
2. $NP \rightarrow ART N$	$AGR = AGR_1 = AGR_2$
3. $NP \rightarrow ART ADJ N$	$AGR = AGR_1 = AGR_3$
4. $VP \rightarrow V NP$	$VFORM = VFORM_1$ $AGR = AGR_1 = AGR_2$ $ROOT = BE1$

Or

- (b) Explain Augmented Transition Network with example.
3. (a) Briefly describe the meaning of knowledge representation and knowledge acquisition.

Or

- (b) Describe Semantic network with examples.
4. (a) Explain the significance of planning.

Or

- (b) Discuss about blackboard models.

(4 × 10 = 40 marks)