

B.Tech IV Year II Semester (R13) Advanced Supplementary Examinations July 2017

NATURAL LANGUAGE PROCESSING

(Common to CSE & IT)

Time: 3 hours

Max. Marks: 70

PART - A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Define recursive transition network.
 - Define grammar.
 - What are definite clause grammars (DCG)?
 - Define ambiguity.
 - What is probabilistic lexicalized CFG?
 - Describe coordination.
 - Define semantic realization.
 - What is rule-by-rule semantic interpretation?
 - Explain identifying rhetorical structure.
 - What is linguistic structure?

PART - B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT - I

- 2 Differentiate top-down and bottom-up parsers with an example.

OR

- 3 Write an algorithm for parsing a finite-state transducer using the pseudocode. Explain the algorithm with an example. Also give the merits and demerits of this algorithm.

UNIT - II

- 4 Discuss the following:

- Language as a rule-based system.
- Stochastic part-of-speech tagging.

OR

- 5 Discuss in detail the term Movement with respect to Transformational Grammar.

UNIT - III

- 6 How is lexicography related to CFG? Explain probabilistic lexicalized CFG with example.

OR

- 7 Describe the following with suitable example:

- Reference resolution.
- Elements of a language.

UNIT - IV

- 8 Give an algorithm for pronoun resolution and explain it with an example.

OR

- 9 Between the words eat and find which would you expect to be more effective in selection restriction-based sense disambiguation. Why?

UNIT - V

- 10 Discuss the knowledge representation structure frames using the objects slots & roles for house, terrorist.

OR

- 11 What information the knowledge base needs to contain to make the appropriate choices in your network?