



Code: 13A05802

B.Tech IV Year II Semester (R13) Advanced Supplementary Examinations July 2018

NATURAL LANGUAGE PROCESSING

(Common to CSE and IT)

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

1 Answer the following: (10 X 02 = 20 Marks)

- List the applications of NLP.
- Define grammar.
- What are definite clause grammars (DCG)?
- List the methods for ambiguity resolution.
- What is probabilistic lexicalized CFG?
- Define Lexicons.
- Define semantic realization.
- What is meant by text planning? Explain.
- Explain identifying rhetorical structure.
- Explain about linguistic structure.

PART – B

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

UNIT – I

- Differentiate top-down and bottom-up parsers with an example.
 - Illustrate with example how morphological parsing is done using FST.

OR

- How the natural language processing systems is evaluated? Explain.
 - Differentiate between natural language processing and natural language understanding.

UNIT – II

- Discuss the following:
 - Language as a rule-based system.
 - Stochastic part-of-speech tagging.

OR

- What is ambiguity? Discuss the different disambiguation techniques with examples.

UNIT – III

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

OR

- What are the issues in parsing? Describe various techniques used for parsing with suitable examples.

UNIT – IV

- Discuss Earley- Style Semantic analyzer with an example.

OR

- Explain the following with examples:

- Selection restrictions.
- Unification method.

UNIT – V

- What is knowledge representation? Explain about the knowledge representation structure frames using the objects slots & roles for house, terrorist.

OR

- Write short notes on defining conversational agent.

