

[5254]-671

B.E. (Computer Engineering)
MULTIDISCIPLINARY NATURAL LANGUAGE
PROCESSING

(2012 Pattern) (Semester - I) (Elective - II)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answers Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.
 - 2) Figures to the right indicate full marks.
 - 3) Assume Suitable data if necessary
- Q1) a) Define the following terms: [6]
- i) Hybrid Parsing
 - ii) Robust Parsing
- b) Give the significance of Named Entities in Natural Language Processing. [4]

OR

- Q2) a) What is meant by Scope Ambiguity and ambiguity resolution? [6]
- b) With suitable example, explain the Maximum Entropy framework. [4]
- Q3) a) With suitable example, explain how robust processing is used on noisy web collected data? [6]
- b) Enlist the steps of Graphical models for sequence labeling in NLP. [4]
- OR
- Q4) a) What do you mean by Unsupervised NLP? Compare Unsupervised NLP with Supervised NLP. [6]
- b) Write a Note on: Discourse Processing. [4]

P.T.O.

Nov 17

- Q5) a) What is Speech Synthesis? Explain Multimodal / audio-visual speech synthesis. [8]
- b) Differentiate between Sentence-level and adaptation level Phenomena. [8]

OR

- Q6) a) What is Acoustic Speech Analysis? Explain it. [8]
- b) Write a note on Auditory physiology. [8]
- Q7) a) Define Metaphor. Give suitable example. [8]
- b) Explain in short the following approaches of Word Sense Disambiguation. [8]
- i) Knowledge-Based
 - ii) Supervised
 - iii) Unsupervised

OR

- Q8) a) Explain the importance of Multilingual Dictionary. [8]
- b) Write a note on: Semantic role. [8]
- Q9) a) With suitable example, Explain Textual Entailment. [10]
- b) Explain various uses/applications of machine translation. [8]

OR

- Q10) Write a Note on : [18]

- i) Database interface in machine translation.
- ii) NLP applications.
- iii) Sentiment Analysis

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