

Total No. of Questions : 10]

SEAT No. :

P2336

[Total No. of Pages : 2

[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, Q.7 or Q.8, Q.9 or Q.10.*
- 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.**

- 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

