

Total No. of Questions : 7]  
**P3199**

SEAT No. :

[Total No. of Pages : 2

**[5670]-301**

**B.E. (Computer Engineering)  
Multidisciplinary NLP  
(2012 Pattern) (Elective - II)**

**Time : 2½ Hours]**

**[Max. Marks : 70**

**Instructions to the candidates :**

- 1) *Solve Q. No.1 or 2, Q.No. 3 or 4, Q.No. 5 or 6.*
- 2) *Q.No. 7 is compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Draw neat diagram wherever necessary.*
- 5) *Make suitable assumptions wherever necessary.*

**Q1)** a) Compare Hybrid of Rule Based and Probabilistic Parsing with example. **[10]**

b) Explain Unsupervised Methods in NLP with example. **[10]**

OR

**Q2)** a) Discuss Probabilistic Similarity Measures and Clustering in detail. **[10]**

b) What is probabilistic parsing? Explain Forward Backward probability. **[10]**

**Q3)** a) Discuss EM algorithm in Natural Language Processing with example. **[8]**

b) Describe physiology of speech production in detail. **[8]**

OR

**Q4)** a) Explain Maximum Entropy Model for Text Categorization. **[8]**

b) Compare speech disorders and speech synthesis with example. **[8]**

**Q5)** a) Explain Lexical Knowledge Networks in detail. **[8]**

b) Discuss Cross Lingual Information Retrieval? **[8]**

**P.T.O.**

OR

- Q6)** a) What is the significance of Multilingual Dictionaries. Discuss in detail. **[8]**  
b) Explain Question Answering in Multilingual settings for sentiment Analysis. **[8]**

**Q7)** Write short note on : (any three) **[18]**

- a) Web Mining and Text Mining.
- b) Graphical Model for sequence labeling
- c) Multilingual Dictionaries
- d) Robust and Scalable Machine Translation.

