

Total No. of Questions : 09]

SEAT No. :

P3225

[Total No. of Pages : 2

[5354]-681

B.E. (Computer Engineering)
MULTIDISCIPLINARY NATURAL LANGUAGE
PROCESSING (End Sem)
(2012 Pattern) (Elective - II)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Q.9 is Compulsory*
- 2) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) What is Natural language Processing (NLP)? Explain Parsing in NLP. [6]
b) What is Probabilistic Parsing? Explain it with suitable example. [4]

OR

- Q2)** a) Explain Machine Translation in terms of Spoken language translation. [6]
b) Write a short note on : Ambiguity resolution and it's techniques. [4]

- Q3)** a) What is Sequence Labeling ? Explain Graphical Models for Sequence labeling in NLP. [6]
b) Explain in short ,Finite State Machine (FSM) based morphology. [4]

OR

- Q4)** a) Explain in detail : The EM algorithm in NLP. [6]
b) Define the terms: [4]
i) Segmentation
ii) Hybrid Parsing

P.T.O.

- Q5)** a) Write a short note on following levels of speech communication.(any two). [8]
- i) Linguistic level
 - ii) Physiological level
 - iii) Acoustic level
- b) Explain Sentence-level Phenomena in performance grammar. [8]

OR

- Q6)** a) Explain Acoustic Analysis of Speech variables during depression and after improvement. [8]
- b) Enlist the reasons of Speech Disorders or Language Disorders. [8]
- Q7)** a) What is WordNet ? Explain it's structure with suitable example. [8]
- b) Explain with suitable example, the IndoWordNet. [8]

OR

- Q8)** a) What is Metaphors? Explain it with suitable example. [8]
- b) Explain in detail: Word Sense Disambiguation (WSD) [8]

Q.9) Write a short Note on : (Any Three) [18]

- a) Difference between Multilingual and Cross -Lingual NLP.
- b) NLP applications.
- c) Sentiment Analysis.
- d) Machine Translation NLP.
- e) Natural Language Tool Kit (NLTK) in Python.

