

**PRAGATI ENGINEERING COLLEGE: SURAMPALEM
(AUTONOMOUS)**

III B.Tech II Semester Regular Examinations, April-2024

**NATURAL LANGUAGE PROCESSING
(CSE HONORS)**

Time: 3 hours

Max. Marks: 70M

**Answer ONE Question from each Unit
All Questions Carry Equal Marks**

| Q. No. | Questions | BTL | CO | Marks |
|-------------------|--|-----|-----|-------|
| UNIT – I | | | | |
| 1. | Illustrate briefly about words and their components in natural language processing. | K3 | CO1 | 14M |
| OR | | | | |
| 2. | a) What is morphological model? Discuss briefly about dictionary lookup model. | K2 | CO1 | 7M |
| | b) Explain briefly about functional morphology. | K2 | CO1 | 7M |
| UNIT – II | | | | |
| 3. | a) What is sentence boundary in the structure of documents? Explain it with an example. | K2 | CO2 | 7M |
| | b) What are topic boundary detections in the structure of documents? Explain it with an example? | K2 | CO2 | 7M |
| OR | | | | |
| 4. | a) Explain briefly about generative sequence classification methods. | K2 | CO2 | 7M |
| | b) Explain briefly about discriminative local classification methods. | K2 | CO2 | 7M |
| UNIT – III | | | | |
| 5. | a) What is treebank? How is it used in natural language processing? | K3 | CO3 | 7M |
| | b) Explain briefly about phrase structure trees with an example. | K2 | CO3 | 7M |
| OR | | | | |
| 6. | a) Draw and explain minimum spanning tree with an example. | K3 | CO3 | 7M |
| | b) Describe the usage of probabilistic context free grammar in natural language processing. | K4 | CO3 | 7M |
| UNIT – IV | | | | |
| 7. | a) Write a short notes on Word Sense Resources | K2 | CO4 | 7M |
| | b) Explain the following (i) Structural Ambiguity (ii) Entity and Event Resolution | K2 | CO4 | 7M |
| OR | | | | |
| 8. | a) Explain in detail about Meaning Representation resources. | K4 | CO4 | 14M |
| UNIT – V | | | | |
| 9. | a) Explain briefly about N-gram models. | K1 | CO5 | 7M |

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|-----------|----|---|----|-----|----|
| | b) | Discuss briefly the language specific modeling problems in different Languages. | K1 | CO5 | 7M |
| OR | | | | | |
| 10. | a) | Discuss briefly about the Bayesian topic-based language models. | K2 | CO5 | 7M |
| | b) | Explain Multi lingual and cross lingual language modeling. | K2 | CO5 | 7M |