Time: 3Hours **Marks: 80**

N.B. Attempt any Four
Assume suitable data wherever necessary

Q.1

A. Explain lexicon, lexeme and the different types of relations that hold between lexemes 10
B. What is a language model? Write a note on the N-Gram language model. 10

Q2

A. What do you mean by word sense disambiguation (WSD)? Discuss knowledge-based WSD. 10
B. Why is POS tagging hard? Discuss possible challenges while performing POS tagging. 10

Q3

A. Explain Natural Language Understanding and Natural Language Generation 10
B. Explain regular expression in Natural language processing 10

Q4

A. What is the role of FSA in morphological analysis? Explain FST in detail 10
B. Explain the generic NLP system and the ambiguities of NLP 10

Q5

A. What is the need for preprocessing text data in natural language? Explain the steps of preprocessing with an example. 10
B. Explain information retrieval versus Information extraction systems 10

Q6

A. Define discourse & pragmatic analysis. Discuss reference resolution problem in detail. 10
B. Explain derivational and inflectional morphology in detail with suitable example 10

03DC602051BDE4CBB191D4754CDA83DD