

Time: 3Hrs.

[Total Marks: 80]

N.B.:(1) Question No.1 is compulsory

(2) Attempt any three question between Question No.2 to 6

Q1. A) Write a short note on following (Attempt Any Four) [20]

1. Word Sense Disambiguation
2. Applications of NLP
3. Affective Lexicons
4. Compare Inflectional Morphology and Derivational Morphology
5. Differentiate between Top down and Bottom up parsing

Q2. A) Elaborate N-Grams- N-gram language model. [10]

B) Define NLP. Explain the stages of NLP in detail. [10]

Q3. A) What is Text Summarization? Explain LexRank algorithm. [10]

B) Explain types of POS tagging with example. [10]

Q4. A) Explain FST in detail with the help of an example. [10]

B) Elaborate CFG with suitable example. Explain potential problems in CFG. [10]

Q5 A) What do you mean by lexical ambiguity and syntactic ambiguity in Natural language? What are different ways to resolve these ambiguities? [10]

B) Explain Dictionary based approach in details. [10]

Q6 A) Explain with suitable examples following relationships between word meanings:

Homonymy, Polysemy, Synonymy, Antonymy, Hypernymy,

Hyponymy, Meronymy [10]

B) Explain Hidden Markov Model (HMM) in detail. [10]