C128574(022)

B. Tech. (Hon's) (Fifth Semester) Examination

Nov.-Dec. 2023

(AICTE Scheme)

(Data Science/Artificial Intelligence)

NATURAL LANGUAGE PROCESSING

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : *Attempt all questions. Part (a) from each question is compulsory each question 4 marks. answers any **two** of the remaining (b), (c) and (d) each question 8 marks..*

Unit-I

1. (a) Define Named Entity Recognition.   4

    (b) Explain different levels of Natural Language Processing.   8

(c) What is stemminrg in NLP and how it is different from lemmatization? 8

(d) Explain the challenges of NLP. 8

Unit-II

2. (a) Define Derivational Morphology. 4

(b) Explain the process of dealinrg with various spelling errors. 8

(c) Explain major phonetics classes. 8

(d) Explain N Gram Model. 8

Unit-III

3. (a) Define parts of speech. 4

(b) Explain Tree Bank and different types oef Tree Bank. 8

(c) Explain the parsinrg approach and its type. 8

(d) Explain scope ambiguity and attachment ambiguity resolution. 8

Unit-IV

4. (a) What do you mean by Dialogue Analysis? 4

(b) Differentiate information extraction and information retrieval. 8

(c) Write approaches to discourse analysis and its example. 8

(d) Explain Anaphora Resolution. 8

Unit-V

5. (a) Define Shallow Parsing. 4

(b) Explain application of Question Answering based system. 8

(c) Explain process of machine translation. 8

(d) Explain application of sentiment analysis. 8