CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
IV–B.TECH–II–Semester End Examinations (Advanced Supply) – June - 2025
NATURAL LANGUAGE PROCESSING
(CSC)

[Time: 3 Hours] **[Max. Marks: 70]**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A (20 Marks)

1. a) Define Morphological Analysis. [2M]
   b) What is tokenization in the context of Morphological Analysis? [2M]
   c) What is a syntactic structure in NLP? [2M]
   d) Define parsing in NLP. [2M]
   e) What is a semantic paradigm in NLP? [2M]
   f) Define semantic interpretation in the context of NLP. [2M]
   g) What is a meaning Representation system? [2M]
   h) What is an argument in a predicate-argument structure? [2M]
   i) What is discourse processing in NLP? [2M]
   j) Define language adaptation in the context of NLP. [2M]

PART-B (50 Marks)

2. Explain the challenges in analyzing word structure in Natural Language Processing. How do Morphological Models address these challenges? [10M]

OR

3. Explain different types of Morphological Models used in NLP and compare their performances. [10M]

4. What is the role of data-driven approaches in building syntactic parsers? How do they improve performance? [10M]

OR

5. Explain in detail about Models for Ambiguity Resolution in Parsing. [10M]

6. Describe the different system paradigms used for semantic interpretation in NLP. [10M]

OR

7. Compare and contrast various approaches to semantic parsing. Discuss their strengths and weaknesses. [10M]

8. Describe how different NLP systems represent predicate-argument structures. [10M]

OR

9. Explain the importance of Meaning Representation Systems and how they are used in NLP applications. [10M]

10. Explain about different Types of Language Models. [10M]

OR

11. What is Reference Resolution in discourse? Explain the challenges and methods for resolving reference. [10M]

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