



ACE

Engineering College

(An Autonomous Institution)

Question Paper Code:

CM603PC

ACE-R20

Semester End Examination

III B. Tech- II Semester Regular Examination- July -2023

NATURAL LANGUAGE PROCESSING

(COMPUTER SCIENCE ENGINEERING AI & ML)

Time: 3 Hours

Max. Marks: 70

H. T. No									
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Note: This question paper contains two parts A and B.

1. Part A is compulsory which carries 20 marks. Answer all questions in Part A.

2. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b as sub questions



PART- A

MARKS: 10*2=20

Q.No: 1

Question

Marks

- | | |
|--|---|
| a) Briefly explain the issues with arranging the structure of words? | 2 |
| b) Explain different components of words. | 2 |
| c) What is ambiguity? List some examples. | 2 |
| d) List Parsing Algorithms in Syntax Analysis. | 2 |
| e) Name a few system paradigms commonly used in semantic parsing. | 2 |
| f) Define semantic interpretation and its role in understanding the meaning of natural language expressions. | 2 |
| g) Define argument structure and provide an example. | 2 |
| h) Explain semantic representations in NLP. | 2 |
| i) Explain the use of Language Model in NLP. | 2 |
| j) What is reference resolution? | 2 |

PART- B

MARKS: 5*10=50

Q.No	Question Description	Marks
2.	Explain Morphological Models in NLP.	10
	(OR)	
3	Analyze the complexity of document structure extraction approaches in terms of computational requirements, scalability, or accuracy.	10
4	a.State the advantages of bottom-up chart parser compared to top-down parsing. b. Explain Parsing algorithm?	5 5
	(OR)	
5.	Evaluate the challenges and limitations of existing multilingual parsing approaches in handling syntactic variations across languages.	10
6	Explain various approaches to semantic analysis. Discuss different semantic relationships between the words.	10
	(OR)	
7	Discuss WSD and the challenges involved in disambiguating word sense in natural language understanding.	10
8	Explain the concept of predicate-argument structure.	10
	(OR)	
9	Compare and contrast different meaning representation systems in terms of their expressiveness and suitability for various NLP tasks.	10
10	Explain different types of language model and List the problems associate with n-gram model.	10
	(OR)	
11	Assess the effectiveness of multilingual language models in handling code-switching and language mixing in social media text.	10