

# P P SAVANI UNIVERSITY

Eight Semester-of Fast Track B. Tech. Examination

December 2022

SEIT4590 Natural Language Processing

06.12.2022, Tuesday

Time: 01:00 p.m. To 03:30 p.m.

Maximum Marks: 60

## Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in same answer sheet.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

### SECTION - I

Attempt any Five.

		CO	BTL
Q - 1	Illustrate with suitable example the different levels of NLP.	[06]	1 2
Q - 2	List and Explain challenges of Natural language Processing.	[06]	1 4
Q - 3	List the problems associated with N-gram model. Explain how these problems are handled.	[06]	2 3
Q - 4	Illustrate part of speech tagging and explain different categories of POS tagging.	[06]	2 1
Q - 5	Explain the NLP application: "A Multilingual approach in Education".	[06]	2 3
Q - 6	Perform parsing using simple top down parsing for the sentence "The dogs cried" using the grammar given below: S->NP VP NP->ART N NP->ART ADJ N VP->V VP->V NP	[06]	1 5

### SECTION - II

Attempt any Five.

Q - 1	Explain benefits of eliminating stop words. Give example in which stop word elimination is harmful.	[06]	2 4
Q - 2	Describe transfer model of Machine Translation. List out its three phases.	[06]	2 2
Q - 3	Demonstrate how to use BLEU score and ROUGE score to evaluate machine-generated text quality.	[06]	3 5
Q - 4	Give the example of bag-of-words model.	[06]	1 3
Q - 5	Describe nearest neighbor algorithm with suitable example.	[06]	1 6
Q - 6	Explain how Natural Language Processing is useful in Text summarization.	[06]	1 3

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CO : Course Outcome Number

BTL : Blooms Taxonomy Level

Level of Bloom's Revised Taxonomy in Assessment

1: Remember	2: Understand	3: Apply
4: Analyze	5: Evaluate	6: Create