O.P.Code:20CS0540   R23   H.T.No. ☐☐☐☐☐☐☐☐☐☐

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech. III Year I Semester Regular Examinations December-2025
NATURAL LANGUAGE PROCESSING
(Common to CSM & CAI)

Time: 3 Hours   Max. Marks: 70

PART-A
(Answer all the Questions 10 x 2 = 20 Marks)

1	a	Define Natural Language Understanding.	CO1	L2	2M
	b	Differentiate intrinsic evaluation and extrinsic evaluation.	CO1	L1	2M
	c	Define Lexicons.	CO2	L1	2M
	d	Dissect the Parsing with Features.	CO2	L2	2M
	e	Describe shift reduce parsers.	CO3	L2	2M
	f	Describe gap threading in NLP.	CO3	L2	2M
	g	Differentiate Ambiguity and Context.	CO4	L1	2M
	h	Classify the the n-gram language.	CO4	L2	2M
	i	Describe document pre-processing.	CO5	L2	2M
	j	Define stemming and give an example.	CO5	L2	2M

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	What is morphology?	CO1	L1	2M
	b	Explain about The Study of Language in natural language processing.	CO1	L2	8M

OR

3	a	Justify any six Applications of NLP.	CO1	L2	5M
	b	Devise Different Levels of Language Analysis in NLP.	CO1	L2	5M

UNIT-II

4	a	Write about Top-Down Parsers.	CO2	L1	5M
	b	Examine Context free grammar in NLP.	CO2	L2	5M

OR

5	a	Dissect Different types of Parsers and explain them.	CO2	L2	5M
	b	Construct Shannon game with example.	CO2	L3	5M

UNIT-III

6	a	Discuss the role of formal grammars in natural language processing. Compare context-free grammars with dependency grammars.	CO3	L2	5M
	b	Explain about relative clauses?	CO3	L1	5M

OR

7		Illustrate deterministic parser? How does it differ from a nondeterministic parser? Give one example.	CO3	L2	10M

UNIT-IV

8	a	Explain how semantic representation aids in computational processing of language.	CO4	L1	5M
	b	Discuss methods used to resolve lexical ambiguity using context.	CO4	L6	5M

OR

9	a	Justify the classification of speech acts and their semantic interpretation.	CO4	L2	5M
	b	Prioritize the role of model theory in defining sentence meaning.	CO4	L3	5M

UNIT-V

10	a	Express the importance of machine translation in the modern multilingual world.	CO5	L6	5M
	b	Describe the input-output process of a basic MT system.	CO5	L2	5M

OR

11	a	Classify document pre-processing in Multilingual Information Retrieval.	CO5	L4	5M
	b	Prioritize Monolingual Information Retrieval in Multilingual Information Retrieval.	CO5	L4	5M

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