R22 Regulation *Subject code: 4P8EC*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VIII Semester Regular Examinations, May 2026

NATURAL LANGUAGE PROCESSING

(CSE)

Maximum Marks: 60 Date: 08.05.2026 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

	Part-A	Marks	CO	BTL
All the following questions carry equal marks (10X1M=10 Marks)				
1.a)	Define morphology.	1	1	1
b)	What is the input and output of an NLP system?	1	1	1
c)	What is Syntax Analysis?	1	2	1
d)	What is the primary goal of syntax in Natural Language Processing (NLP)?	1	2	1
e)	What is Semantic interpretation	1	3	1
f)	What is the main focus of semantics in NLP?	1	3	1
g)	What is Predicate Argument Structure	1	4	1
h)	In the context of N-gram models, what does "N" represent?	1	4	1
i)	Define Language modeling	1	5	1
j)	What is the purpose of parameter estimation in N-gram models?	1	5	1
	Part-B			
Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	a) Explain various issues and challenges faced in morphology	5	CO1	2
	b) Discuss in detail about complexity approaches of NLP System	5	CO1	2
	OR			
3	a) What are the measures used to find the performance of the NLP Methods	5	CO1	1
	b) Explain the difference between inflectional and derivational morphology with examples.	5	CO1	2
4	a) Explain the types of parsing.	5	CO2	2
	b) Explain about Data Driven approach to Syntax.	5	CO2	2
	OR			
5	a) Outline an Over view of Parsing algorithms	5	CO2	2
	b) What are generative models in the context of syntactic parsing?	5	CO2	1
6	a) What are Multilingual Issues faced in syntax analysis	5	CO3	1
	b) List the System Paradigms in Predicates? Explain	5	CO3	2
	OR			

7	a) Explain Semantic Parsing with execution.	5	CO3	2
	b) Write a short note on Semantic Interpretation.	5	CO3	2
8	a) Explain predicate and argument structure.	5	CO4	2
	b) Discuss about Meaning Representation Systems.	5	CO4	2
	OR			
9	a) Discuss how predicate-argument structures are used in tasks like information extraction and question answering.	5	CO4	2
	b) How to overcome the Parsing Errors in predicate argument structure?	5	CO4	1
10	a) Explain three types of Language Models.	5	CO5	2
	b) How Morphological structure helps to Language modelling.	5	CO5	1
	OR			
11	a) Explain Language Model Adaptation.	5	CO5	2
	b) Write a short note on N-Gram Models.	5	CO5	2