R20 Regulation *Subject code: 3P6HB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, November 2025

NATURAL LANGUAGE PROCESSING

(CSE(DS))

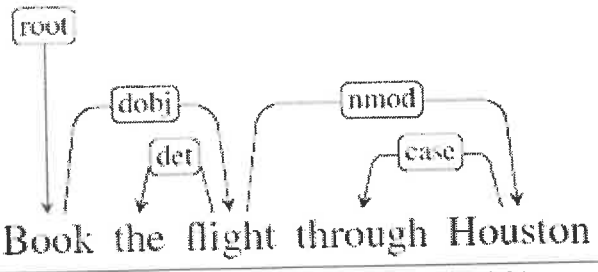
Maximum Marks: 70 Date: 21.11.2025 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 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

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	Define Tokenization.	2M	1	L1
2	List out Ambiguity in issues and challenges.	2M	1	L1
3	What is Case Grammar?	2M	2	L1
4	Write the Minimum Spanning applications.	2M	2	L1
5	What is Frame based Knowledge Representation.	2M	3	L1
6	Name the other resources of prop bank.	2M	3	L1
7	Define argument structure.	2M	4	L1
8	Write the various challenges in processing natural language?	2M	4	L1
9	Why language modeling is crucial in modern NLP applications?	2M	5	L1
10	Which software is used for NLP?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Briefly write about Topic & Sentence Boundary Detection with example.	10M	1	L2
	OR			
12	a) Discuss Hybrid Approaches In NLP. b) What are the Issues and Challenge of NLP?	5M 5M	1	L2
13	Differentiate between top-down & bottom-up parsing with an example.	10M	2	L2
	OR			
14	Explain Shift-Reduce Algorithm. 	10M	2	L2
15	Explain in briefly Word Sense Disambiguation (WSD).	10M	3	L2
	OR			

16	What is deep semantic parsing? Explain various resources used for deep semantic parsing.	10M	3	L2
17	Explain how semantic role labelling is done for nominal predicates or normalizations.	10M	4	L2
	OR			
18	How to overcome parsing errors in pas?	10M	4	L2
19	Explain about multilingual & cross lingual language modelling.	10M	5	L2
	OR			
20	a) Discuss Maximum-Likelihood Estimation and Smoothing. b) Discuss Tree Based Language Model.	5M 5M	5	L2