



R20 Regulation

Subject code:3P5GC

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**

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

**B.Tech V Semester Supplementary Examinations, May 2025**

**NATURAL LANGUAGE PROCESSING**

(CSE(AI&ML))

Maximum Marks: 70

Date: 23.06.2025

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	What is the role of Morphology?	2M	1	L1
2	What is the importance of NLP?	2M	1	L1
3	Differentiate Dependency Parsing and Phrase structure tree.	2M	2	L1
4	What is Tree Banks? Write an example program.	2M	2	L1
5	What is Case Grammar?	2M	3	L1
6	Describe Frame based Knowledge Representation.	2M	3	L1
7	What is Predicate Argument Structure in Syntax?	2M	4	L1
8	What is the work of Word Sense?	2M	4	L1
9	What is Large-Scale Language Model?	2M	5	L1
10	Define N-Gram Model?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	a) Explain Generative Model and Classifier with examples. b) Discuss Hybrid Approaches In NLP.	5M 5M	1	L2
OR				
12	a) What are the Issues and Challenge of NLP? b) Explain about Ambiguity and its types.	5M 5M	1	L2
13	a) What is Tree Banks? Write an example program. b) Which Syntax used for Phrase Structure of Trees.	5M 5M	2	L2
OR				
14	a) Explain Shift-Reduce Algorithm. <div style="text-align: center;"> </div>	5M 5M	2	L2
	b) Explain Data Driven Approach and NLP Architecture.			

15	a) Explain in briefly Word Sense Disambiguation (WSD). b) Explain Lesk Algorithm With Example.	5M 5M	3	L2
OR				
16	a) State homonymy and polysemy with example. b) Explain in briefly semantic net with Example.	5M 5M	3	L2
17	a) Explain Semantic Role Labelling Algorithm. b) Describe Architecture of Dependency Tree.	5M 5M	4	L2
OR				
18	a) Explain Prop Bank with Example parsing Tree. b) Write about System Paradigms.	5M 5M	4	L2
19	a) What is Bigram model? Explain with example. b) Write about Bayesian Parameter Estimation.	5M 5M	5	L2
OR				
20	a) Explain Multilingual Language Modelling. b) What is the purpose of MaxEnt Languages Model	5M 5M	5	L2