

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE Winter Examination – 2022 Course: B. Tech. Branch : CSE Semester :VII Subject Code & Name: BTCOE703C Natural Language Processing Max Marks: 60 Date:01/02/2023 Duration: 3 Hr.			
Instructions to the Students: 1. All the questions are compulsory. 2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question. 3. Use of non-programmable scientific calculators is allowed. 4. Assume suitable data wherever necessary and mention it clearly.			
		(Level/CO)	Marks
Q. 1	Solve Any Two of the following.		12
A)	What is speech processing in NLP? How does it work? Give different applications of speech processing.	Remembering	6
B)	Explain ArgMax() based computation in NLP. Illustrate using 1) Single class. 2) Multiclass on classification	Understanding / Applying	6
C)	Explain Hidden Markov Model with suitable example. List its applications.	Understand /Evaluate	6
Q.2	Solve Any Two of the following.		12
A)	Show working of NER with appropriate example.	Understanding	6
B)	Illustrate maximum entropy principle formula with example.	Understanding/ Applying	6
C)	What is morphological analysis? Explain pre-processing steps	Remembering	6
Q. 3	Solve Any Two of the following.		12
A)	What is parsing? Explain chunking	Remembering	6
B)	What is a language model? Write note on N-Gram language model.	Remembering/ Applying	6
C)	Write short note on Hybrid of Rule Based and Probabilistic Parsing	Understanding	6
Q.4	Solve Any Two of the following.		12
A)	What is a metaphor in NLP? List its types and uses	Remembering	6
B)	With example explain creation of SynSet in wordnet.	Understanding/ Creating	6
C)	What is wordnet? Explain WSD in Wordnet.	Understanding	6

Q. 5	Solve Any Two of the following.		12
A)	What is textual entailment in NLP? Apply it on question answering application and simplify its working with suitable example.	Remembering/ Applying/ Analysing	6
B)	Write a short note on importance of sentiment analysis.	Remembering	6
C)	What is information retrieval in NLP? Explain cross lingual information retrieval [CLIR] in brief.	Understanding	6
	*** End ***		