

Enrollment No.:

Date: 01/06/2026

Subject Code: BETCE15402

Semester: 6

Subject Name: Natural Language Processing

Total Marks: 100

Time: 10:30AM To 01:30PM

Instructions:

1. Question No. 1 is Compulsory.
2. Make Suitable Assumptions wherever necessary.
3. Figures to the right indicate full marks.

	Marks
Q.1 (a) What is text preprocessing? List its steps.	05
(b) Difference between chatbot and QA system.	05
(c) Describe how an NLP system processes user input step-by-step.	10
G.2 (a) Explain Question Answering systems.	05
(b) Explain tokenization and normalization.	05
OR	
(b) Explain POS tagging.	05
(c) Explain the complete NLP pipeline with suitable example.	10
OR	
(c) Explain Word2Vec training process.	10
Q.3 (a) What is a language model? Explain Unigram, Bigram, Trigram.	05
(b) What is TF-IDF. Explain its Use.	05
(c) Explain lexical semantics with examples.	10
OR	
(a) Explain Bag-of-Words (BoW) model.	05
(b) Explain Sentiment Analysis.	05
(c) Explain working of an IR system.	10
Q.4 (a) Steps in document classification.	05
(b) What is BLEU score?	05
(c) Design an N-gram model and explain probability computation.	10
OR	
(a) Components of a QA system.	05
(b) List major application areas of NLP and explain any two.	05
(c) Discuss different POS tagging methods with examples.	10
Q.5 (a) What is Text Summarization?	05
(b) Role of NLP in real-world AI systems.	05
(c) Explain supervised vs unsupervised text classification.	10
OR	
(a) Rule-based vs stochastic POS tagging.	05
(b) Difference between semantic similarity and relatedness.	05
(c) Discuss Document Classification methods in detail.	10