Name: Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Natural Language Processing   Semester: VII
Program: B.Tech-CS- OSOS   Time 03 hrs.
Course Code: CSEG415   Max. Marks: 100
Instructions: All questions are compulsory, however internal choices mentioned.

SECTION A			
S. No.		**Marks**	**CO**
Q 1	Interpret the descriptive and generative models in NLP?	**4**	**CO1**
Q 2	Discuss the ambiguity involved in Garden Path Sentences.	**4**	**CO4**
Q 3	Comprehend unigram, bigram, n-gram with suitable examples.	**4**	**CO1**
Q 4	Distinguish between Morphological Analysis and Morphological Synthesis.	**4**	**CO2**
Q 5	Elaborate Phrase Chunking with suitable example.	**4**	**CO5**
SECTION B			
Q 6	Illustrate the different classes of Morphology with suitable examples.	**10**	**CO5**
Q 7	Explain the Co-reference resolution and discuss the different way for resolving the co-references.	**10**	**CO4**
Q 8	Describe the following evaluation parameter in term of Linguistic model: Precision, Recall and F-measure.	**10**	**CO3**
Q 9	Comprehend how by applying probabilistic parsing, word sense disamguity (WSD) may be resolved. Or, Describe the Confusion Matrix and its application in reference with NLP.	**10**	**CO4**
SECTION-C			
Q 10	Apply Viterbi algorithm for POS-Tagging Problem.	**20**	**CO3**

Q 11	Derive the expression for Maximum Likelihood estimates for Naïve Bayes Model. And apply it for estimation of Naïve Bayes Model.
	
	Or,
	Write short notes on the following:-
	    a) TF-IDF
	    b) Word Sense Disambiguity
	    c) Pragmatics
	    d) Textual Entailment
		20	**CO4,C O2**