**B.E. (Computer Engineering)**

**Natural Language processing(C409a)**

**(2019 Pattern) (Semester -VIII)**

**Prelims Question Paper**

***Time : 2½ Hours] [Max. Marks : 70***

***Instructions to the candidates:***

***1.Sovle Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.***

***2.Neat diagrams must be drawn whereve necessary. 3.Assume suitable data, if necessary.***

*Q1)* a) What is N-gram model?Define unigram,Bigram and trigram model [8]

b) Explain Latent Dirichlet Allocation(LDA) [10]

OR

*Q2)* a) What is non-negative matrix factorization(NMF)? [8]

b) Explain log-linear models [10]

*Q3)* a)Identify the approaches for cross lingual information retrieval [9]

b)Build the architecture of an Information Retrieval system with a neat diagram [8]

OR

*Q4)* a) Identify the features of Feature based NER system [9]

b) Make use of patterns to extract relation with suitable example [8]

*Q5)* a )Analyze the significance of Word Sense Disambiguation in NLP. Explain any one WSD method [10]

b)Explain and construct verbnet with suitable example. [8]

OR

*Q6)* a)Classify the different linguistic relation in the wordnet network [10]

b)Explain and discuss NLTK with its libraries [8]

*Q7)* a) Determine how statistical methods can be used in machine translation [7]

b) Identify how discourse processing uncover linguistic structures from texts at several levels [10]

*Q8)* a) Explain different machine translation approaches [7]

b) Make use of NLG and identify the choices that generation system must make [10]