Duration: 3 Hrs   **Marks :80**

Note: *1) Question No.1 is compulsory.*
                 2) Attempt any three question out of remaining five.
                 3) Draw neat diagrams and assume suitable data wherever necessary.
                 4)Figures to the right indicate full marks

Q1	a)	Explain derivational and inflectional morphology.	[5]
	b)	Define syntactic and semantic level of language understanding in natural language processing. Give example for each level	[5]
	c)	Identify and describe the ambiguities in the following sentences	[5]
		I. The man kept the dog in the house	
		ii. Book the flight	
	d)	What is N-gram model in natural language processing?	[5]
Q2	a)	Describe thematic role used in the semantic analysis with the example.	[10]
	b)	Explain various approaches to perform Part- of- speech (POS)	[10]
Q3	a)	What is text coherence? Discuss the significant of text coherent in discourse segmentation.	[10]
	b)	Explain the process of multi –document summarization.	[10]
Q4	a)	Explain rule based and stochastic POS tagging with example.	[10]
	b)	Explain with suitable example following relationships between word meaning	[10]
		Hononymy, Polysemy, Antonymy, Hypernomy, Hyponymy, Meronymy.	
Q5	a)	Analyse how statistical method can be used in machine learning translation.	[10]
	b)	What is the role of FSA in morphological analysis? Explain FST in details.	[10]
Q6	a)	**Write a note on (any 2)**	[20]
		a) Porte's stemming algorithm	
		b) Information Retrieval	
		c) Hierarchical discourse structure & reference resolution	
		d) Semantic Analysis	

****

77157