

**2006 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY**  
**IV B.TECH II SEMESTER DEGREE EXAMINATIONS**  
**NATURAL LANGUAGE PROCESSING**  
**(COMPUTER SCIENCE ENGINEERING)**

APRIL/MAY 2006

TIME : 3 HOUR  
MARK : 80

Answer any FIVE Questions All Questions carry equal marks

1. (a) What are Transition Networks?  
(b) Represent a noun Phrase segment of a transition network  
(c) "Kathy Jumped the horse" Parse the above sentence both using top-down & bottom-up Methods.
2. (a) Explain with an example the elements of the simple noun phrases.  
(b) What is Morphology?  
(c) What are Inflectional form & Derivational forms?
3. Write short notes on:  
(a) Context free rules  
(b) Phrase structure grammar  
(c) Backus Norm Form  
(d) Examples of Context free grammar
4. Discuss the knowledge representation structure frames using the objects Slots & roles for House, Terrorist.
5. (a) What is tree adjoining grammer(TAG)?  
(b) Explain briefly about TAG derivation Tree.
6. (a) List all the types of referencing Expressions?  
(b) Briefly describe the basic reference phenomena?
7. (a) Why Translation is Hard? Justify Your Answer with Examples?  
(b) Discuss in detail the two Kinds of processes in Morphology?
8. (a) List & Explain the choices made by the generations systems?  
(b) Explain with diagram the reference Archicture for NLG systems.

@@@@@