

## Question Bank

Sub : Natural Language processing (**DLO8012**)

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### Module 4: Semantic Analysis

Q.1 what is semantic analysis? why semantic analysis difficult? Explain various approaches to semantic analysis.

Q.2 Discuss in detail attachments for fragments of English sentences.

Q.3 What is semantic analysis? Discuss different semantic relationships between the words.

OR

Explain with suitable example following relationships between word meanings:

Homonymy	Polysemy	Synonymy	Antonymy	Hypernymy
Hyponymy	Meronymy			

Q.4 Write a note on “WordNet “

OR

What is WordNet? How is “sense” defined in WordNet? Explain with example.

Q.5 What do you mean by word sense disambiguation (WSD)? Discuss dictionary based approach for WSD.

OR

What do you mean by word sense disambiguation (WSD)? Discuss knowledge based WSD.

OR

Explain Lesk Algorithm for WSD with suitable example. **//A knowledge /dictionary based approach**

Q.6 What do you mean by word sense disambiguation (WSD ) ? Discuss machine learning based (Navie based) approach for WSD.

OR

Explain how a supervised learning algorithm can be applied for word sense disambiguation.

**//Q.6 topic not directly motioned in syllabus, but was supposed to be covered as discussed during orientation program.**

## **Module 5: Pragmatics and Discourse**

Q.1 Define discourse & pragmatic analysis . Discuss reference resolution problem in detail.

Q.2 Discuss following referring expressions with suitable examples w.r.t reference phenomena

Indefinite NPs   Definite NPs   Pronouns   Demonstratives   and   Oneanaphora.

Q.3 Explain three types of referents that complicate the reference resolution problem.

Q.4 Write a note on Syntactic and Semantic Constraints on Coreference.

Q.5 Discuss various Preferences in Pronoun Interpretation with suitable example.

Q.6 Explain in detail Lappin and Leass's Algorithm for Pronoun Resolution with suitable example.

Q.7 Describe in detail centering algorithm for reference resolution.

## **Module 6: Applications**

Q.1 write a note on :

- a. Machine translation
- b. Information retrieval vs Information Extraction
- c. Question answers system
- d. Text Categorization
- e. Text Summarization
- f. Sentiment analysis.
- g. Named Entity Recognition
- h. Pragmatic Analysis

**(\*\*One can form a question on the above topics instead of giving it as a short note)**

Q.2 Discuss in detail any application considering any Indian regional language of your choice.