**CS 5316–Natural Language Processing**

**Assignment 1**

Deadline: Feb. 1 (Friday) at 11:55 PM

**Question 1**

Provide a definition and some examples of the following branches of linguistics:

1. Phonetics
2. Phonology
3. Morphology
4. Syntax
5. Semantics
6. Pragmatics

**Question 2**

1. Name and give examples for commonly-used parts-of-speech (POS) in English.
2. What is a lexicon? Give examples of lexicons for English and Urdu.
3. Distinguish between a phrase and clause.
4. Experiment with Google’s translation service (translate.google.com)> In particular, show examples of Urdu text being translated to English and vice versa. Write the Urdu text in both standard script (Perso-Arabic) and Latin script (Roman Urdu).

**Question 3**

1. Study Google’s chatbots API (DialogFlow) and report its key features.
2. Search for two interesting currently available chatbots. Summarize their features and provide some sample interactions with them.