## B.Tech Computer Engineering 8<sup>th</sup> Semester 2021 Natural Language Processing and Information Extraction [CEN-807]

## **Sessional 2**

Max Time: 1 hr Max Marks: 15

Note: Attempt all questions.

- 1. What are word vectors? Illustrate with the help of a suitable diagram. Define the cosine similarity between two word vectors. [9]
- 2. A *char-context matrix* (also called chararacter co-occurrence matrix) is a char x char matrix which captures the number of times a character appears in the context of another character. Choose your full name as the corpus and consider the context of window +-4, i.e. 4 characters left and 4 characters right of any character.

Generate the simple char-context matrix for the corpus. [6]

Note: If the corpus of any two students is found to be the same, it will be deemed as copied and therefore will be liable for deduction of marks.