

CSM-322: Information and Coding Theory

Lab - 1

(Odd Semester 2024-25)

August 8, 2024

Q1. Instantaneous Codes

Given an array of alphabets and their corresponding codes. Write a program to check whether the given codes are instantaneous or not.

Example: {A: '1', B: '0'}

Output: Yes

Example: {A: '1', B: '11'}

Output: No

Q2. Uniquely Decodable Codes

Given an input string and a dictionary of words, write a program to find out the number of interpretations of the given string.

Example: '01', {A: '1', B: '0'}

Output: 1

Explanation: only possible sequence BA

Example: '11', {A: '1', B: '11'}

Output: 2

Explanation: two possible sequences are: AA, B