CSE 300: Online Assignment

Md Shamsuzzoha Bayzid, Mahjabin Nahar, Md Shariful Islam Bhuyan,
and Md Saidur Rahman

April 2021

1 Introduction

This assignment has been designed to assess the preparation of the students in writing scientific articles using LaTeX. This assignment covers a variety of components that are commonly used in scientific manuscripts.

1.1 Figures

We intend to put Figure 1 at the top of a page.

1.2 Tables

We wish to place Table 1 right here.

Table 1: **Optimization scores for Method-1 and Method-2 on different datasets covering various model conditions.** We show average scores of two optimization criteria for various model conditions.

Dataset	Model condition	Optimization Score 1		Optimization Score 2	
		Method-1	Method-2	Method-1	Method-2
D1	M_1	7,425.55	770.00	929.55	10
	M_2	7,657.00	9,179.00	716.15	20
	M_3	54.00	9,007.15	3,759.00	30
	M_4	74.00	5567.15	99.00	25
Dd2	M_1	34.00	273.00	321.60	34
	M_2	357.00	79.60	16.00	11
	M_3	657.00	179.60	716.00	19

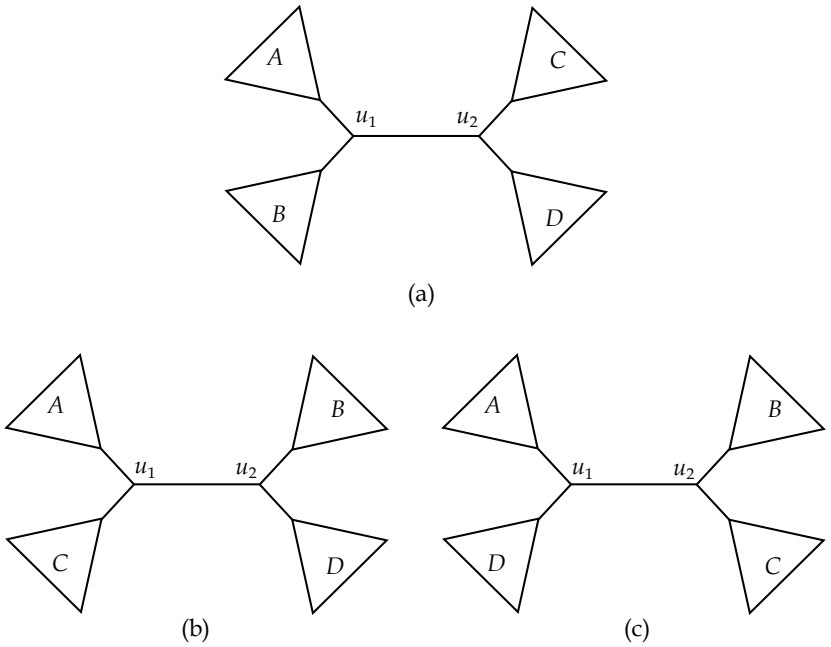

Figure 1: **Nearest Neighbor Interchange (NNI) move on an internal edge.** (a) A species tree ST, and (b)-(c) the neighbors of ST resulting from one NNI move on edge e = (u1, u2). A, B, C, and D are the sets of taxa in the four subtrees around edge e.

1.3 Equations

Let $n1|n2|n3$ be a tripartition defined on an internal node u of a binary tree T. The number of tripartitions mapped to u is given by Eqn. 1.

$$\mathcal{NQ}(n_1, n_2, n_3) = \binom{n_1}{2}\binom{n_2}{1}\binom{n_3}{1} + \binom{n_2}{2}\binom{n_1}{1}\binom{n_3}{1} + \binom{n_1}{2}\binom{n_1}{1}\binom{n_2}{1} \tag{1}$$

2 Conclusion

The major objectives of this assignment are listed below (please do not ignore the font sizes).

1. To assess the ability of the students in preparing manuscripts in LaTeX.
2. To see if the students have adequately practiced different aspects of writing in LaTeX.
3. To see if the students can add various basic components (e.g., tables, figures, equations) to a LaTeXmanuscript.

4. To see if the students can leverage the available materials (both offline and online) to do something which has not explicitly been taught in the class.