

CSE 300: Online Assignment

Md Shamsuzzoha Bayzid^{1,*}, Mahjabin

Nahar^{1,†}, Md Shariful Islam Bhuyan^{1,†}, and Md Saidur Rahman^{1,†}

¹Department of Computer Science and Engineering Bangladesh
University of Engineering and Technology

*Corresponding author: shams_bayzid@cse.buet.ac.bd

[†]These authors contributed equally to this work

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1 Introduction

This assignment has been designed to assess the preparation of the students in writing scientific articles using L^AT_EX. Different components, that are frequently used in scientific manuscripts, have been covered in this assignment.

1.1 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

Simulation Condition			Optimization Score			
Dataset	Complexity	Model condition	Score 1		Score 2	
			Method-1	Method-2	Method-1	Method-2
D1	Easy	M ₁	7,425.55	770.00	929.55	10
		M ₂	7,657.00	9,179.00	716.15	20
	Hard	M ₃	54.00	9,007.15	3,759.00	30
		M ₄	74.00	5567.15	99.00	25
D3	Moderate	M ₁	34.00	273.00	321.60	34
		M ₂	Not Applicable		16.00	11
		M ₃	657.00	179.60	716.00	19

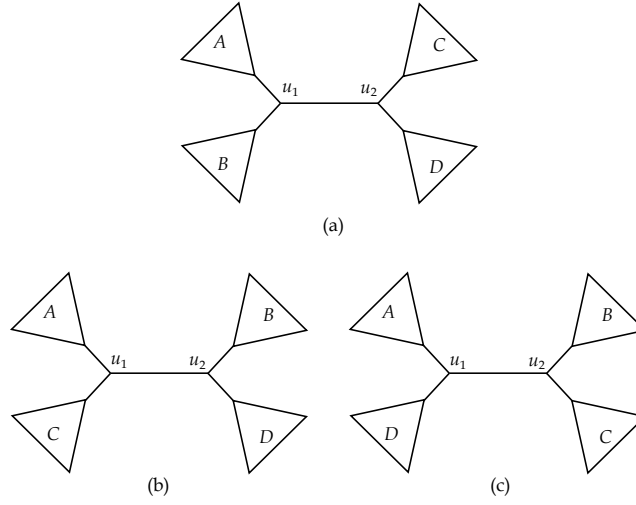


Figure 1: **Nearest Neighbor Interchange (NNI) move on an internal edge.** (a) A species tree ST, and (b)-(c) the neighbors of ST resulting from one NNI move on edge $e = (u_1, u_2)$. A, B, C, and D are the sets of taxa in the four subtrees around edge e .

1.2 Figures

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

1.3 Equations

Let $n_1|n_2|n_3$ 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. 2

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

$$= \frac{n_1 n_2 n_3 (n_1 + n_2 + n_3 - 3)}{2} \quad (2)$$

2 Conclusions

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

- To see if the students have adequately practiced different aspects of writing in L^AT_EX.
- To assess the ability of the students in preparing manuscripts in L^AT_EX.

- To see if the students can add various basic components (e.g., tables, figures, equations) to a \LaTeX manuscript
- 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.