

# CSE 300: Online Assignment

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## 1 Introduction

This assignment has been designed to assess the preparation of the students in writing scientific articles using L<sup>A</sup>T<sub>E</sub>X . Different components, that are frequently used in scientific manuscripts, have been covered in this assignment.

### 1.1 Table

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	Score1		Score2	
			Method1	Method2	Method1	Method2
D1	Easy	M1	7425.55	770.00	929.00	10
		M2	7657.66	9179.00	764.55	20
	Hard	M3	54.00	9007.00	3759.00	30
		M4	74.00	5567.00	99.00	25
D2	Moderate	M1	34.00	273.00	321.60	34
		M2	Not Applicable		16.00	11
		M3	657.00	179.00	716.00	19

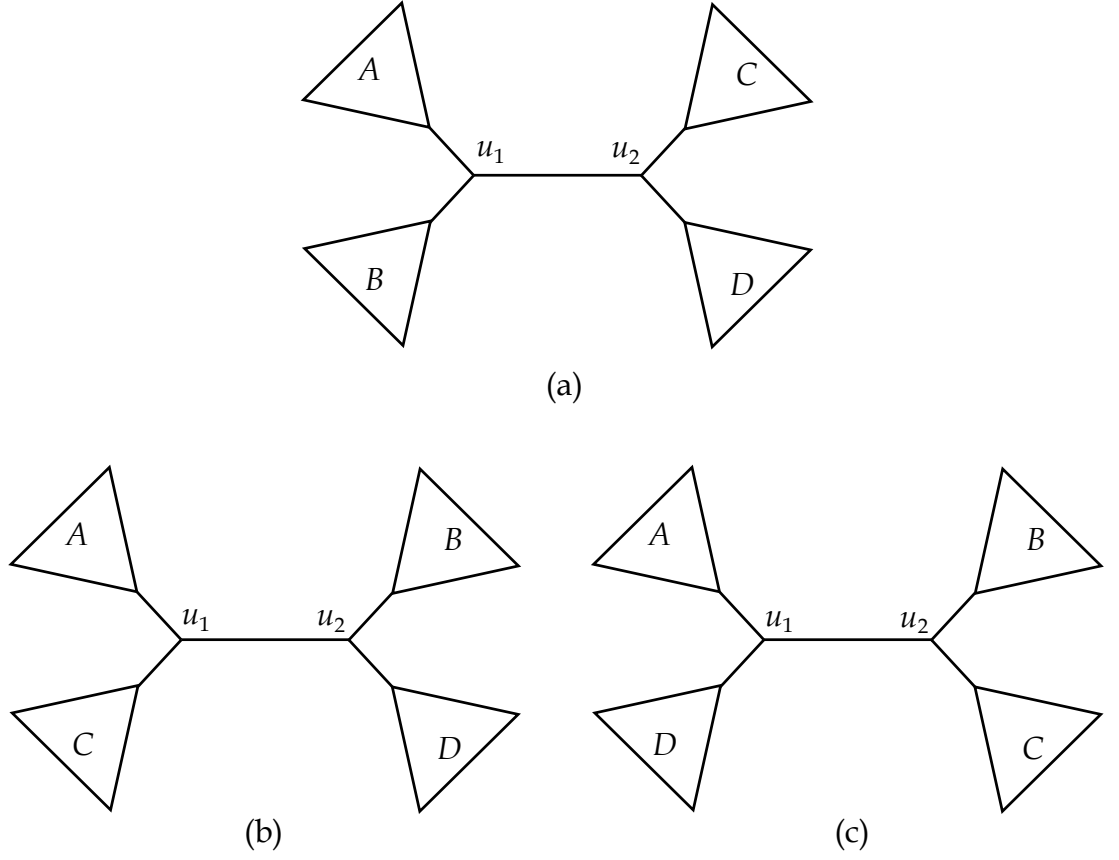


Figure 1: **Nearest Neighbor Interchange (NNI) move on an internal edge.** (a) A species tree  $ST$ , and (b)-(c) the neighbors of  $ST$  resulting from one NNI move on edge  $e = (u_1, u_2)$ .  $A, B, C$ , and  $D$  are the sets of taxa in the four subtrees around edge  $e$

## 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. 1.

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

## 2 Conclusion

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

- To assess the ability of the students in preparing manuscripts in L<sup>A</sup>T<sub>E</sub>X .

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