## Algorithms for Bioinformatics (Autumn 2015)

## Exercise 6 (Tue 13.10., 10-12, B222)

If you cannot make it to the exercise session, please e-mail your solutions and the reason why you cannot attend to daniel.valenzuela@cs.helsinki.fi before the exercise session to get credit.

Some of the problems below are programming exercises on the Rosalind platform at http: //rosalind.info/problems/list-view/?location=bioinformatics-textbook-track

- 1. Solve the Rosalind problem BA9A: Construct a Trie from a Collection of Patterns.
- 2. Solve the Rosalind problem BA9G: Construct the Suffix Array of a String.
- 3. Solve the Rosalind problem BA9I: Construct the Burrows-Wheeler Transform of a String.
- 4. Give the suffix tree for the text lallilla\$.
- 5. The longest repeat in a text is the longest string with at least two occurrences in the text. Describe how to find the longest repeat using the suffix tree of the text.

Your feedback on improving the course is greatly appreciated. Please use this anonymous feedback form at https://ilmo.cs.helsinki.fi/kurssit/servlet/Valinta?kieli=en