Bioinformatics - Supervision 2

Work is due 24 hours before the supervision. Please hand in at Student Administration at the Computer Lab, or email (tab43@cam.ac.uk)

**General questions**
Answer the following questions in your own words:

1. How can we evaluate of results obtained using clustering algorithms?
2. Define a HMM, and discuss the three types of problems we wish to solve for HMM’s.
3. How would you measure the performance of your HMM?
4. What assumptions do we make when using the Gillespie algorithm?

**Algorithms**
For each of the following algorithms below, write a few sentences on the following:

- The abstract problem it solves
- A practical use of the algorithm
- How the algorithm works
- The space and time complexity

1. Viterbi algorithm
2. Forward-Backward algorithm
3. Gibbs sampling
4. Wagner algorithm
5. Gillespie algorithm