

COSC 311: ALGORITHMS

MINI 10

Due Wednesday, November 14 in class

Every semester the computer science department is faced with the challenge of assigning available TAs to lab sections for 111. This semester we have four lab sections: 9am, 10am, 11am, and 12pm. Analis, Jane, Jack, and Ferial have signed up to work as TAs, and they are available as follows:

- Analis is available at 10am and 12pm.
- Jane is in class for COSC-311 at 11am, but can TA any other time.
- Jack is only free at 12pm.
- Ferial is free at 9am and 11am.

We'd like to assign one TA to each lab section.

1. Draw the graph you obtain when transforming this problem into a network flow problem (include all nodes, edges, and edge weights).

2. Run Ford-Fulkerson on the graph to find a max flow (you don't need to show all the steps, but I *strongly encourage* you to review the algorithm and make sure you understand what it does). Show the resulting flow.

3. What assignment of TAs to lab sections does your max flow tell you to use?