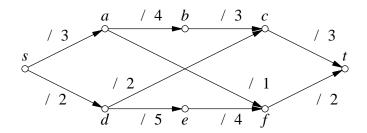
## **Network Flows Worksheet**

## **Question #7(a)- Instructions**

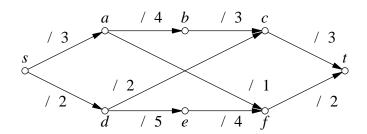
Use the second page to show each step of the maximum flow algorithm as follows.

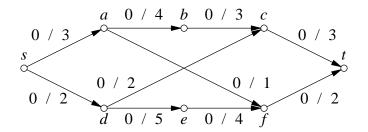
- 1. Draw the auxillary graph on the right hand side of the page.
- 2. Show the augmenting path you choose from the auxiliary graph by marking the edges with a red pen in the typeset graph on the LHS of the page.
- 3. Show the change in the flow function by filling in the new flow values for the next typeset graph on the page.
- (b) Fill in your final flow values from question 7(a). Indicate on the figure the vertices in P and those in  $\bar{P}$ .

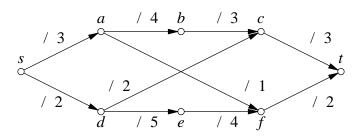


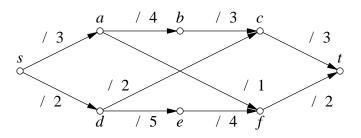
The capacity of  $(P, \bar{P})$  is:

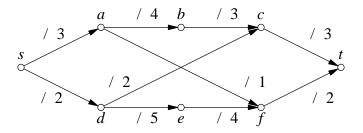
(c) Indicate an alternate maximum flow:

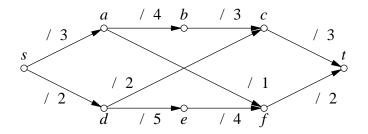












**Gomery Hu Worksheet** 

## **Question #8 Instructions**

- 1. Choose the lexicographically smallest next pair of vertices at each step. Write the pair chosen beside the graph.
- 2. Indicate the maximum flow between this pair of vertices by filling in flow values on the figure as for question #7.
- 3. Indicate the minimum cut chosen by circling the vertices in each half of the cut.
- 4. Draw the portion of the cut tree computed so far to the right of the graph.

