GRAPH THEORY: CLASS 11

1) Given a graph G below.

a) Find the minimum number of edges separating A from B.
b) Find the maximum number of edge-disjoint A-B paths in G .
c) Use Menger's Theorem (edge version) to verify your result.

2) Consider the network below:

a) Find the minimum capacity of any cut in the network.
b) Find the maximum possible value of any flow in a network.
c) Use The max-flow min-cut theorem to verify your results in part a) and b).

3) Consider the graph G below.

a) Find $\kappa(G)$ and $\lambda(G)$.
b) Pick any $\kappa(G)$ vertices and find a common cycle that contains all these vertices.

Date: June 12, 2008.