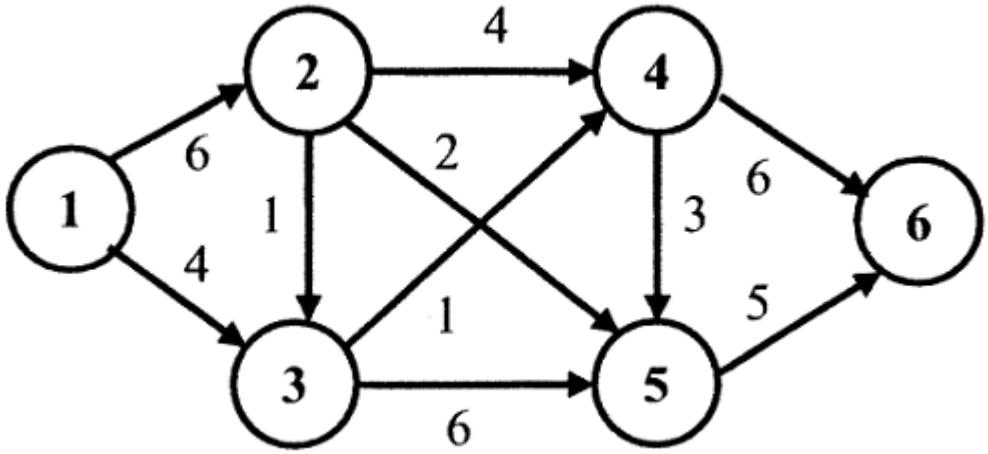
Seminar 7:

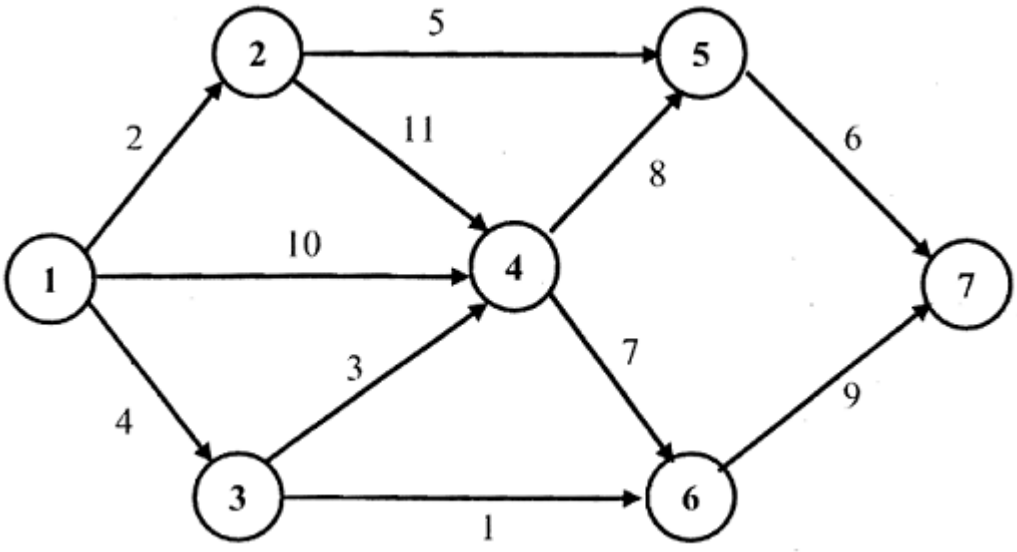
Network optimization,

Problem 1: Solve the maximal flow problem in the network with a source in the node 1 and sink in the node 6.



Check the solution using MS Excel.

Problem 2: Find a shortest path from the node 1 to the node 7 in the displayed network.



Check the solution using MS Excel. Use binary decision variables ($x_{ij} = 1$ if the edge is included and $x_{ij} = 0$ if not) and formulate the problem as minimizing the cost of the unitary flow from the node 1 to the node 7).

Problem 3:

Find a minimal spanning tree of the displayed network.