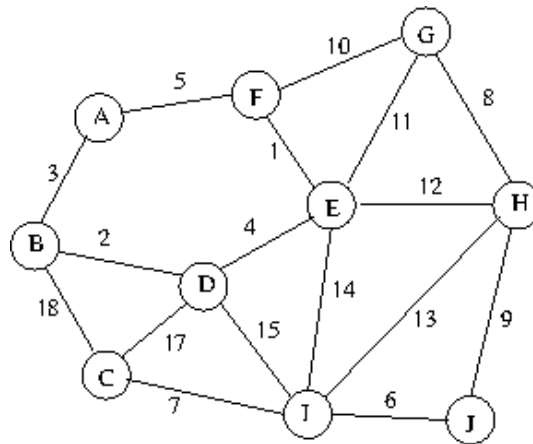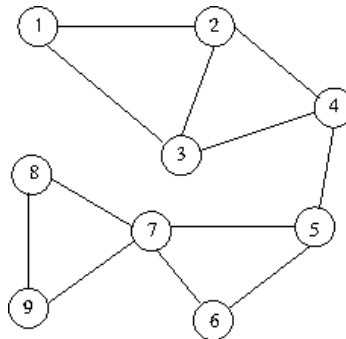**Exercise 1** Find the minimum spanning tree in the following network. Report the edges that belong to the minimum spanning tree as well as the graph of the union-find data structure; connect the root of the tree with the smallest height to the root of the tree with largest height and, in case of a tie, choose as root the node with the smallest label.

Figure 1 – Graph 1

Exercise 2 Find the articulation points in the following graph. Report the DFS tree by starting from node 5 and choosing the nodes for traversal in increasing order of the labels.

Figure 2 – Graph 2

Exercise 3 Read the problem *I - Telephone* in EA2020_ProblemasAula in Mooshak and solve it using the algorithm for articulation points.