1. Explain what a minimum spanning tree is,with an example (a simple graph with 5 to 10 nodes is sufficient) [0.3 pts]

- *The example must include two figures (full graph; spanning tree)*

A minimum spanning tree of a connected, undirected graph is a subgraph that includes all the vertices of the original graph and a subset of the edges such that it forms a tree with the smallest possible sum of total edge weight. In other words, it's a way to connect all the nodes in a graph with the minimum total cost.

Example: