Discrete math UAS final exam, prepared by Michael Marchenko

1. Simplify the Boolean expression. How many edges are in KT and KT,T?

2. Find adjacency and incidence matrixes for the graph.

3. Apply Dijkstra’s, Prim's and Kruskal’s algorithms to graphs. Traverse trees.

4. Give Euler’s, Hamiltonian’s cycles, paths in graphs.

5. Is the graph planar? Why? Color your graphs using as few colors as possible.

6. Color the map of the country number T using as few colors as possible.

7. Find the number of regions for graph with L+20 edges, e+10 vertices.

8. Explain the laws of the discrete math.