Final Exam possible questions

1. Give an example of a Real-Life (R-L) problem that leads to a **coloring of an interval graph.**
   a. What is given in the R-L problem and what needs to be found?
   b. How an interval graph is constructed? What are its vertices and what are its edges?
   c. How can one color optimally an interval graph? Give an optimal coloring algorithm for interval graphs.
   d. What is the complexity of the coloring problem on general graphs?
   e. How the coloring of the graph relates to a solution of the R-L problem?
2. Give an example of a Real-Life problem that leads to a **clique cover of an interval graph.** Expect also questions similar to a, b, c, d, e from Q1.
3. Give an example of a Real-Life problem that leads to finding **a maximum clique of an interval graph.** Expect also questions similar to a, b, c, d, e from Q1.
4. Give an example of a Real-Life problem that leads to finding **a maximum independent set of an interval graph.** Expect also questions similar to a, b, c, d, e from Q1.
5. Give an example of a Real-Life problem that leads to **a graph problem (any graph problem of your choice) on circular arc graphs.** Expect also questions similar to a, b, e from Q1.
6. Give an example of a Real-Life problem that leads to **a graph problem (any graph problem of your choice) on permutation graphs.** Expect also questions similar to a, b, e from Q1.

Date: **Tuesday, May 10, 2016, 12:45 - 3:00 p.m., Room 228**