• The coverage of the final exam is the material from week 1 to week 9 as clearly indicated in the syllabus of the course.
• We don’t promise that the final exam problems will be selected from this sample list. But those who pay close attention to this sample list will gain advantages in the final exam.

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(1) **Corner point theorem**: Ex5 on p.56, Ex2 on p.52

(2) **Convex sets, convex combinations**: p23 on p.48, Thm2 on p.44, Ex3 on p.66, Prob10 on p.69

(3) **Slack variables and canonical form**: Sec. 2.5 on p.80, Ex4 on p.87

(4) **Simplex method, optimality criterion, unbounded termination rule**: Ex3 on p.101

(5) **Degeneracy, cycling, Bland’s rule**: Ex1 on p.124, Ex2 on 127

(6) **The two-phase method, artificial variables**: Ex1 on p.143, Ex2 on p.145, Ex1 on p.151, Ex2 on p.153

(7) **The big-M method**: Ex1 on p.163, Ex2 on p. 164

(8) **Matrix representation**: Ex5 on p.193, Ex7 on p.196, Thm2 on p.206, Ex6 on p.207, Ex1 on p.213

(9) **Duality, fundamental principle, complementary slackness**: Ex2 on p.282, Ex5 on p.287, Ex7 on p.289

(10) **Duality proof, dual simplex method**: Ex1 on p.319, Ex3 on p.322, Ex4 on p.324

(11) **Sensitivity analysis**: change in the resource column: Ex1 on p.350, Ex4 on p.356, Thm3 on p.357, Ex6 on p.359
c change in the cost coefficients: Ex2 on p.367, Sec.7.5, Ex1 on p.388, Ex2 on p.389
 augmenting a new column: Ex1 on p.387, Ex2 on p.389