**Assignment 16 (January 30 – February 4)**

1. Find the solution of the IVP in the Solow’s growth model

, ,

where .

2. Let the demand and supply be

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a) Assuming that the rate of change of price over time is directly proportional to the excess demand with the coefficient of proportionality , find the time path  (general solution).

b) What is the intertemporal equilibrium price? What is the market-clearing equilibrium price?

c) What restriction on the parameter  would ensure dynamic stability?

3. Maximize  subject to the constraints



4. Solve the following first-order differential equation



5. For what values of does the differential equation  have a unique solution  such that ?