1. (5 points) The government puts a limit (quota) on sugar imports.
   (a) (2 points) Draw supply and demand curves (indicating price and quantity) before and after the quota is set.

   (b) (3 points) Explain two ways for allocating quota among suppliers. Explain which is more efficient from an economic and social perspective, and explain why corrupt politicians might choose the other way?
2. (4 points) A public pool costs €4 to enter, but it’s over crowded. Explain why and suggest two ways to make swimming more fun (i.e., reduce congestion), drawing from the definitions of public, private, common pool, and/or club goods.

3. (6 points) An individual maximizes utility; a price-taking firm maximizes profits.
   (a) (4 points) Describe how they find maximum utility and profits (respectively), in terms of marginal benefits and costs.
(b) (1 point) The government wants to “help” people and firms find their maximum utility and profits, respectively, given prices, income, etc. Comment.

(e) (1 point) Give a numeric example of how an individual responds when the price of a consumed good rises, assuming a price elasticity of -0.40.

4. (4 points) You own a shoe store and are thinking of hiring your first employee. How would you compensate them? Does it matter if you are selling expensive or cheap shoes?
5. (4 points) The government of Problemstan wants to help the poor by subsidizing energy prices. Explain why this policy does not help the poor (as much as the rich) compared to an alternative policy (describe it), using the definition of budget constraint. Hint: draw a figure.

6. (3 points) List (with a short description) three costs and three benefits from going to graduate school. Explain how a decision to go to graduate school would be affected by an increase in one’s personal discount rate.
7. (4 points) Explain the importance of “transaction costs” (i.e., the cost of coordinating people and acquiring information) in Coase (“Nature of the Firm”) and Hayek (“Use of Knowledge in Society”). Provide two examples.