1. The top two graphs above present Al and Betty’s MWTP for the public good Q. Which of the figures, a, b or c is the correct representation of the social MWTP for this public good if society consists of only Al and Betty?
   a. a
   b. b
   c. c
   d. a, b, or c could be correct depending upon whether is exclusivity satisfied.
   e. none of the graphs are correct.

2. Fill in the blanks.
   Public goods are defined as goods that are ______ and ___.
   a. publicly available & publicly funded
   b. excludable & nontransferable
   c. open access & res nullis
   d. nonexcludable & indivisible
   e. common pool & common property
3. Suzy likes to cook extremely strong smelling fish. Her neighbors in the apartment complex all smell it when Suzy is cooking, and they don’t like it. Which of the following is most clearly true with regard to Suzy’s cooking?

a. Even though Suzy does not share her food with her neighbors, exclusivity fails.

b. Since Suzy cooks only for herself, exclusivity is satisfied.

c. Since there are no restrictions on cooking and smell, Suzy is within her rights and, as a result, economic efficiency is satisfied.

d. It appears that in this situation the characteristics of efficient property rights satisfied; Suzy pays for the food, cooks it herself, and eats it herself.

e. All of the above (a-d) are true

4. Referring to the graph above, which of the following is not true.

a. The total benefits to the consumers would be maximized if f units of the good were produced and sold at a price of zero.

b. At the market equilibrium, Producer Surplus is the area bec.

c. At the market equilibrium, Consumer Surplus is the area aeb.

d. The net benefits to society as a whole from the production and sales of the good in a market would be equal to the area aed0.

e. If the price of the good is b, then consumers maximize their net benefits by purchasing d units.
5. The graph above presents a standard negative externality in which the production of the good Q causes pollution that imposes costs on members of society who neither buy nor sell the good. Which of the following is not true?

a. The social optimum occurs at the market equilibrium, where 3 thousand units of the good are produced at a price of $2.

b. MC<sub>S</sub> stands for social marginal cost because it includes all the costs to society, both the private costs and the external costs..

c. For each unit of the good that is produced the marginal external costs is about $1, the vertical distance between MC<sub>P</sub> and MC<sub>S</sub>.

d. At the market equilibrium, a welfare cost exists.

e. At the market equilibrium, the total external costs to society would equal $3,000.

6. Which of the following statements (a-d) is correct.

a. *Rent seeking* happens when an individual or group uses its resources in time and money to attempt to obtain something (e.g. protective legislation) for the benefit of the group, but in a way that frequently does not benefit society as a whole.

b. *Biological diversity* includes both the genetic variation within a species and the number of species within a community. Because, the value of this diversity is controlled by a single business or firm, it is a classic private good.

c. The term *free rider* refers to someone who contributes to the provision of a public good but does not have any cost.

d. *Common property resources* are resources that are types of property that are encountered on a daily basis, making them commonly found in modern economies.

e. All of the statements are correct.
7. Which of the following policy options is/are usually cost-effective?

a. A pollution tax or charge.
b. Cap and trade programs.
c. An emissions standard in which all sources are required to reduce their pollution by the same percentage.
d. All of the above
e. a and b only

8. Which of the following is the best description of a cap-and-trade system?

a. Under a cap-and-trade system, polluters are allowed to emit the pollution that they want to as long as they inform the government in advance.
b. Under a cap-and-trade system, polluters pay a fee to the government for each unit of pollution that they emit, thus creating a double dividend.
c. Under a cap-and-trade system, the government sets a cap on pollution and then the government pays traders a unit subsidy when they reduce their pollution below the cap.
d. Under a cap-and-trade system, there is no strict limit on the amount of pollution a business can emit since a polluter can emit more than its initial limit as long as it buys rights from other polluters, who must then reduce their pollution below their initial limit.
e. Under a cap-and-trade system, all the polluters that trade in a geographic region are required to reduce their emissions to the rate set by the cap.

9. Transaction costs are prevalent throughout the economy. Which of the following statements about transaction costs is/are correct?

a. Lawyers’ fees and fees paid to courts are two examples of transaction costs.
b. Government should weigh potential transaction costs when deciding whether to address an inefficiency created by an externality.
c. Liability rules always lead to efficient outcomes because under this approach transaction costs are eliminated
d. a, b and c
e. a and b
10. Which of the following statements is/are correct?

a. Product charges, in which a pollution fee is paid for each unit produced, are always better than emissions charges because they are easier to implement.
b. It is never possible to achieve a socially efficient outcomes through regulations because regulations are inflexible.
c. The term “stock pollutants” refers to pollutants that accumulate over time because the emissions load exceeds the environment’s absorptive capacity.
d. A cost-effective allocation is socially optimal, maximizing the net benefits to society.
e. All of the above are true.

11. Which of the following is a correct statement about Ronald Coase and the “Coase theorem”?

a. Coase showed that externalities can be addressed efficiently through the use of a tax.
b. Coase showed that cap-and-trade is an economically efficient way to address an externality.
c. Coase argued that the private allocation of public goods would be inefficient, justifying government provision of things like parks and defense.
d. Coase proved that externalities lead to inefficient outcomes since they do not maximize social net benefits.
e. Coase showed that it is possible to efficiently address an externality through negotiation and side payments