



THE OPEN UNIVERSITY OF SRI LANKA

MSc. IN ENVIRONMENTAL SCIENCES-LEVEL 9

DSP 9502: ENVIRONMENTAL ECONOMICS AND MANAGEMENT

NO BOOK TEST I -2018/2019

DURATION: ONE AND HALF (1 1/2) HOURS

Date: 22<sup>nd</sup> June 2019

Time: 1.00 p.m. - 2.30 p.m.

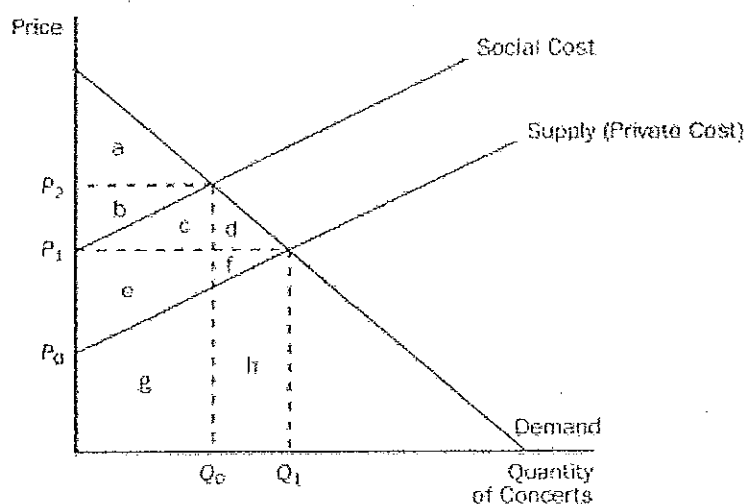
**Instructions**

- **Part one- MCQs (answer all questions)**
- **Please attach the part one to the answer script**

**Part one**

1. Private markets fail to account for externalities because
  - a) externalities don't occur in private markets.
  - b) sellers include costs associated with externalities in the price of their product.
  - c) decisionmakers in the market fail to take account of the external effects of their behavior.
  - d) the government can easily correct any adverse effect on the market that externalities may cause.
2. When negative externalities are present in a market
  - a) producers will be affected, but not consumers.
  - b) overproduction will occur.
  - c) demand will be too high.
  - d) the market will still maximize total benefits.
3. Positive externality
  - a) social cost curve lies to the LEFT of a supply (private cost) curve.
  - b) social value curve lies to the RIGHT of demand (private benefit) curve.
  - c) markets produce LARGER quantity than is socially desirable.
  - d) markets produce SMALLER quantity than is socially desirable
4. A Pigovian Tax is a
  - a) tax enacted to correct the effect(s) of a negative externality.
  - b) tax enacted to correct the effect(s) of a positive externality.
  - c) tax enacted to correct the effect(s) of governmental mistakes.
  - d) tax enacted to correct the effect(s) of income poverty.

5. Which of the following statements about a well-maintained yard best conveys the general nature of the externalities?
- A maintained yard conveys a positive externality because it increases the home's market value.
  - A maintained yard conveys a negative externality because it increases the property tax liability of the owner.
  - A maintained yard conveys a negative externality because it makes other property owners in the neighborhood feel like their homes are less valuable.
  - A maintained yard conveys a positive externality because it increases the value of adjacent properties in the neighborhood.



6. Refer to the above Figure. This market is experiencing
- government intervention.
  - a positive externality.
  - a negative externality.
  - None of the above are correct.
7. Refer to the above Figure. The optimum amount of this product from society's standpoint would be
- $Q_1$
  - $Q_0$
  - $Q_1 + 0$
  - $Q_1 - 0$

8. The Coase Theorem implies that private parties can solve externality problems independently if:

- a) they can bargain over the allocation of resources by methods of payment.
- b) they can bargain over the allocation of resources without cost.
- c) the government is involved.
- d) they ignore all costs to third parties.

9. What are command-and-control regulations?

- a) Regulations require market permits and place a market price on greenhouse gas emission.
- b) Regulations place a tax on greenhouse gas emissions.
- c) Laws and regulations dictate the standards and technology used to reduce greenhouse gases.
- d) Laws allowing the public to sue corporations to reduce greenhouse gas emissions.

10. Which argument do developing countries use, so they should not have to limit their greenhouse gas emissions?

- a) It will help the developing country to improve and they do not want that.
- b) Green technologies and alternative energy sources are not available to developing countries.
- c) Developed countries refuse to help developing countries.
- d) If the developing country limits their emissions, then they may limit their growth.

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## Part Two

### **Answer Three Questions including Question one.**

1. Sri Lanka is primarily an agriculture-based country which depends on the crop and animal production which covers significant land portion in the dry and wet zones. As an identifiable issue in the agriculture sector, soil erosion has been the focus of policy makers for many decades. The Sri Lankan government has enacted laws to penalize the people who do not apply the soil conservation methods.
  - a) Articulate your ideas about the use of rules and regulations to control the environmental damage based on your knowledge on neo-classical and new institutional economics. Also, give your comments on which approach would be suitable for achieving the best outcomes?
  - b) Give your opinions, based on the Malthusian and Ricardian views, to better manage the seemingly scarce resource of arable lands.
2. Biodiversity is an important resource for a nation.
  - a) Discuss the institutional measures taken by the Sri Lankan government to protect the biodiversity.
  - b) Explain the environmental valuation methods available to value the biodiversity.
3. Smoking can cause negative externality. Sri Lankan government has taken significant steps to curtail prevalence of smoking.
  - a) Graphically explain, why price control is not a successful instrument to reduce smoking.
  - b) Explain the social cost and private cost of smoking using the Demand and Supply diagram.
  - c) Suggest a practical policy measure to reduce smoking.
  - d) Comment on the effectiveness of measures taken by the government to reduce smoking.
4. Write brief notes on the following topics.
  - a) Point pollution and non-point pollution.
  - b) Coase theorem for environmental dispute minimization
  - c) Waste accumulation in the environment and reaching of threshold level.
  - d) Pollution as a threat for human life.

