



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF MANAGEMENT SCIENCES

DEPARTMENT OF ACCOUNTING ECONOMICS AND FINANCE

QUALIFICATION :	BACHELOR OF ECONOMICS HONOURS DEGREE		
QUALIFICATION CODE:	08HECO	LEVEL:	8
COURSE CODE:	ENE820S	COURSE NAME:	ENVIRONMENTAL ECONOMICS
SESSION:	January 2019	PAPER:	THEORY
DURATION:	3 HOURS	MARKS:	100

SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER (S)	Prof. Tafirenyika Sunde
MODERATOR:	Mr Gerson Kampungu

INSTRUCTIONS
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. Ruler
2. Calculator

THIS QUESTION PAPER CONSISTS OF 3 PAGES

QUESTION 1 [25 MARKS]

- 1.1 Explain the meaning and importance of economic surplus? [5]
- 1.2 Using examples, explain the difference between positive externalities and negative externalities (No graph). [5]
- 1.3 Discuss why the positive externalities result in under-production and negative externalities result in over-production of the good. [5]
- 1.4 What policies can be utilized to ensure that the socially optimal amounts of the good are produced in each case in question 1.3. [5]
- 1.5 What is the Coase theorem? Explain how the theorem could be used to resolve a conflict between a factory that pollutes a river and a fishing business downstream from the factory whose catch rates are reduced by the pollution. [5]

QUESTION 2 [25 MARKS]

Use the simple algebraic information given below which is based on externalities to answer the following questions:

$$\text{Demand: } P = 50 - Q = MB$$

$$\text{Supply: } P = 5 + 0.25Q = MPC$$

- (a) Find the equilibrium price and quantity and illustrate graphically. [5]
- (b) Suppose $MC_E = Q$. What happens to the marginal external cost (the marginal increase in damages from pollution) as more of the good is produced? [5]
- (c) Find the marginal social cost $MC_S = MC_P + MC_E$. [5]
- (d) Find the socially optimal equilibrium price and quantity. [5]
- (e) Which area on the graph represents the net gain from moving to the socially optimal equilibrium point? [5]

QUESTION 3 [25 marks]

- Write short notes on the following concepts: (a) Contingent valuation, [7]
(b) Travel cost method, and, [7]
(c) Hedonic pricing method. [7]
(d) Open access resources [4]

QUESTION 4 [25 marks]

Discuss in detail the two sources of misallocation in the world gas and oil sector?