FACULTY	AGRICULTURE, ENGINEERING AND NATURAL RESOURCES		
SCHOOL	AGRICULTURE AND FISHERIES SCIENCES		
DEPARTMENT	ANIMAL PRODUCTION, AGRIBUSINESS AND ECONOMICS		
SUBJECT	RESOURCE ECONOMICS		
SUBJECT CODE	AAER 3781		
DATE	JUNE 2023		
DURATION	**3 Hours**	**MARKS**	100

SECOND OPPORTUNITY EXAMINATION

Examiner: Mr. Thula Maharero

Internal Moderator: Prof. Helmke, Sartorius von Bach

This EXAM consists of TWO (2) pages including this front page

Instructions

- Answer all questions
- Each question is worth 25 marks
- Please write legibly and number your questions clearly

UNIVERSITY OF NAMIBIA EXAMINATIONS

QUESTION 1 **[25 MARKS]**

1.1 Outline the major classifications of "economic and natural resources". [5]

1.2 Discuss the major environmental issues and challenges that the world is faced with. [20]

QUESTION 2 **[25 MARKS]**

Assume that notebook paper is sold in a perfectly competitive industry. The industry's short-run supply curve (or marginal cost curve) is $P = MC = 2Q$, where Q is measured in millions of reams per year. The inverse demand for notebook paper is $P = 40 - 8Q$.

Answer the following questions:

(a) Calculate the equilibrium market price, quantity sold and associated economic surplus under this resource allocation? [10]

(b) Suppose that in their production process, paper manufacturers have been dumping waste in nearby streams. The external marginal cost is estimated to be \$0.50 for each ream produced. Calculate the socially optimal level of output and price for the paper industry. [5]

(c) Suppose GRN institute a tax equivalent to \$0,5. Use a graph to analyse the welfare effects on society, [10]

QUESTION 3 **[25 MARKS]**

Explain how you would use the following tools to valuate natural resources.

(a) Benefit Cost Analysis [15]

(b) Contingent Valuation Method [10]

QUESTION 4 **[25 MARKS]**

Sustainability is the study of how natural systems function, remain diverse and produce everything it needs for the ecology to remain in balance. It also acknowledges that human civilisation takes resources to sustain our modern way of life. There are countless examples throughout human history where civilisation has damaged its own environment and seriously affected its own survival chances.

REQUIRED:

(a) Briefly explain why it has been difficult to achieve/improve sustainability. [10]

(b) Briefly outline and elaborate on the three pillars meant to solve sustainability of resource use. [15]

END...GOOD LUCK!