

BINDURA UNIVERSITY OF SCIENCE EDUCATION

DEPARTMENT OF ENVIRONMENTAL SCIENCE

BSC SAFETY, HEALTH AND ENVIRONMENTAL MANAGEMENT

ES 418/AGM 403

BSC PART IV EXAMINATION

Environmental Economics

2 HOURS

INSTRUCTIONS

Answer question 1 and any two questions from Section B

SECTION A (COMPULSORY)

1. (a) Explain the following terms in relation to pollution control instruments:

- | | | |
|------|--------------------------------|-----------|
| i. | Ancillary benefits | [2 Marks] |
| ii. | Dynamic efficiency | [2 Marks] |
| iii. | Dependability | [2 Marks] |
| iv. | Flexibility | [2 Marks] |
| v. | Economic efficiency | [2 Marks] |
| vi. | Long run effects | [2 Marks] |
| vii. | Cost of use under uncertainty. | [2 Mark] |

(b) With the aid of examples, explain the following functions of the environment in relation

to economic activity:

- | | | |
|------|------------------|------------|
| i. | Waste sink. | [2 Marks] |
| ii. | Resource base. | [2 Marks] |
| iii. | Amenity service. | [2 Marks] |
| iv. | Life support. | [2 Marks] |

(c) Explain the following concepts in relation to property rights:

- | | | |
|------|------------------|------------|
| i. | Transferability. | [2 Marks] |
| ii. | Universality. | [2 Marks] |
| iii. | Exclusivity. | [2 Marks] |
| iv. | Enforceability. | [2 Marks] |

SECTION B

2. Apply the DPSIR framework to any environmental problem in Zimbabwe. [20 Marks]
3. Discuss the economic causes of environmental problems in Zimbabwe. [20 Marks]
4. Explain the following valuation methods:

- | | | |
|------|----------------------|------------------|
| i. | Contingent valuation | [5 Marks] |
| ii. | Productivity change | [5 Marks] |
| iii. | Hedonic pricing | [5 Marks] |
| iv. | Opportunity cost | [5 Marks] |

5. Discuss the three categories of pollution control instruments. **[20 Marks]**

END OF PAPER