



**RAJARATA UNIVERSITY OF SRI LANKA  
FACULTY OF APPLIED SCIENCES**

**B.Sc. (Special) Degree in Applied Biology  
Fourth Year - Semester I Examination – January/February 2021**

**BDC 4205 – ECONOMICS OF BIODIVERSITY CONSERVATION**

**Time: Two (02) hours**

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**Answer ALL questions.**

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1. a) Provide brief definitions for “Economics” and “Biodiversity”. Explain the relevance of economics in biodiversity conservation. **(15 marks)**  
 b) Briefly describe the following key concepts of economics related to biodiversity conservation.
  - i. Scarcity principle
  - ii. Economic surplus
  - iii. Marginal analysis
  - iv. Decision making rule **(40 marks)**
- c) Explain basic assumptions of a rationale consumer. **(10 marks)**  
 d) Compare and contrast “Cardinal utility” vs. “Ordinal utility”. **(10 marks)**  
 e) Distinguish between “Marginal utility” and “Total utility”. **(10 marks)**  
 f) Graphically illustrate and explain consumer equilibrium. **(15 marks)**
  
2. a) “*The well-being of humans is totally dependent upon the continued flow of ecosystem services.*” Comment on this statement emphasizing the diversity of benefits provided by nature to human society. **(50 marks)**  
 b) Providing examples from Sri Lanka and the world, critically comment on “the current accelerated decline in biodiversity and the related loss of ecosystem services”. **(50 marks)**
  
3. a) “*The subsistence farmers, fishermen, the rural poor and traditional societies face the most serious risks from environmental degradation.*” Comment on the above statement considering the impact on the poor due to biodiversity loss. **(100 marks)**

4. a) Using the economic concepts of “Market failure” and “Public goods”, comment on the challenges of placing economic values on the benefits of ecosystems and biodiversity.

(50 marks)

- b) Discuss the **four (04)** key principles of best practice on valuation of ecosystem services.

(50 marks)

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