



03

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

**B.Sc. (General) Degree in Applied Biology
Fourth Year – Semester I Examination – October/November 2015**

BIO 4209 - BIODIVERSITY AND ECONOMICS

Part I– Structured Questions

Index No:

Instructions: Answer all questions

Write your index number in the question paper and in the answer script

Write your answers in the space provided

Hand over answer script to the examiner

Time: One (01) hour

Marks: 40

01.a) State five (05) economic reason to loss biodiversity.

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b) List five (05) limitations of GDP as a measure of sustainable development indicator.

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c) State five (05) properties a sustainable development indicator should encompass.

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d) Discuss in brief the role of biodiversity in maintaining food security of a country.

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e) Contrast services provided by biodiversity and economic services?

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(10 marks)

02. a) What are the three (03) basic questions a general consumer have?

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b) Define the cardinal measure of satisfaction.

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c) What do you understand by the term law of diminishing marginal utility?

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d) i. Define the term budget constraint.

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ii. In a clearly labeled diagram illustrate the consumer equilibrium when he enjoys two ecosystem services

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e) Illustrate graphically the effect of reducing prices of two ecosystem services on consumer equilibrium.

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03.a) What are the conditions of non-attenuated property rights?

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b) Distinguish between long run supply and short run supply.

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c) Graphically illustrate the relationship among total, average and marginal products.

d) Explain as to why public goods like biodiversity cannot be provided through a market mechanism.

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e) State five (05) properties of “isoquant” curves

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(10 marks)

04. a) What do you mean by the terms given bellow?

i. The low of demand

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ii The low of supply

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iii. Quantity demanded

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b) Factors determining the demand for a natural park for recreation

c) Distinguish between normal good and an inferior good.

d) Distinguish between substitutes and complements.

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e) Graphically illustrate the effect of income increase of consumers on demand for wildlife for recreation