



RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES, MIHINTALE

B.Sc. (Special) Degree in Applied Biology
Fourth Year – Semester I Examination – April/May 2015

BIO 4209 – BIODIVERSITY AND ECONOMICS

Time: Two (02) hours

Answer all questions in part A. Use separate answer sheet to provide answer to part B.

Part A– Structured Questions

Index No:

01. a) State five (05) economic importance of Biodiversity to the national economy.

.....

.....

.....

.....

.....

b) List five (05) limitations of conventional development measures.

.....

.....

.....

.....

.....

c) Name five (05) limitations of development indicators.

.....

.....

.....

.....

.....

Library
Faculty of Applied Sciences
Rajarata University of Sri Lanka
Mihintale

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

e) List five (05) socio – economic factors in loss of biodiversity.

.....

.....

.....

.....

.....

.....

(10 marks)

02. a) Define the terms given bellow.

i.Total Utility

.....

.....

.....

.....

ii.Marginal Utility

.....

.....

.....

.....

.....

b) Write five (05) characteristics of an indifference curve.

.....

.....

.....

.....

.....

.....

c) i. Define “budget constraint.”

.....

.....

.....

ii. In a clearly labeled diagram, illustrate the consumer equilibrium.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

d) State in brief the functioning of emission charges in curtailing environment pollution.

.....

.....

.....

.....

.....

.....

.....

e) Name three (03) limitations of using emission charges.

.....

.....

.....

(10 marks)

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

b) Cite the causes of market failure.

.....

.....

.....

.....

.....

.....

c) Graphically illustrate the amount of negative externality using an example.

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

.....

.....

.....

.....

.....

.....

e) Name five (05) measures to correct market failure.

.....

.....

.....

.....

.....

(10 marks)

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

i. Current reserves

.....

.....

.....

.....

ii. Potential reserves

.....

.....

.....

.....

iii. Resource endowments

.....

.....

.....

.....

b) Distinguish depletable from renewable resources.

.....

.....

.....

.....

.....

.....

.....

c) Name five (05) factors which determine the resource scarcity and availability.

.....

.....

.....

.....

.....

.....

d) State five (05) properties of a renewable resource.

.....

.....

.....

.....

.....

e) Name five (05) opportunities where we can allocate forest ecosystems in the economy

.....

.....

.....

.....

.....

.....

10 marks

Part B – Essays

Answer **two (02)** questions only.

01. "In harvesting a forest application of economic dimension is more efficient than biological dimension". Critically evaluate the statement giving their merits and demerits using examples where necessary. (30 Marks)
02. Discuss in detail the impact of economic development on Biodiversity. (30 Marks)
03. i) Explain in detail what is meant by the term dynamic efficiency in fishery. (20 marks)
ii) Discuss possible policy options available to manage fishery resource. (10 marks)