

UNIVERSITY OF COLOMBO – SRI LANKA
FACULTY OF ARTS
SPECIAL DEGREE EXAMINATION IN ARTS (GEOGRAPHY) – PART III
FIRST SEMESTER END EXAMINATION – 2019

GYG 4182 – Applied Biogeography

Two (2) hours

Answer **three (03)** questions selecting at least **one** from each part.

Part I

- 01.(i). Briefly describe the sub-fields of biogeography. (04 Marks)
- (ii). Explain how the descriptive approach of biogeography helps to understand the function of natural environment. (06 Marks)
- (iii). “Biogeography depends heavily upon the observations and concepts of its parent subjects”. Discuss this statement citing appropriate examples. (10 Marks)
- 02.(i). Briefly explain the necessity of “provisioning services” provided by ecosystems. (04 Marks)
- (ii). Explain the salient characters of mangrove ecosystems using examples. (06 Marks)
- (iii). Highlighting the ecosystem services provided by mangrove ecosystems, discuss the significance of them to the economy of Sri Lanka. (10 Marks)
- 03.(i). Citing suitable examples from Sri Lanka, differentiate between *in-situ* and *ex-situ* conservation. Give an example of a combined effort of *in-situ* and *ex-situ* conservation. (04 Marks)
- (ii). Discuss briefly the reasons for considering the behaviors of animal species as a crucial element in *ex situ* conservation. (06 Marks)
- (iii). “An economist emphasized that species extinction is a natural phenomenon thus allocating government funds to conduct research on the extinction of species and conservation by universities should be minimized”. Critically comment on the above statement. (10 Marks)

Part II

- 04.(i). Explain briefly the necessity of considering both space and time factors in the studies of declining species diversity. (04 Marks)
- (ii). Why is a literature survey considered as a powerful methodology in the study of declining nature of species diversity? Explain. (06 Marks)
- (iii). Discuss the importance of disseminating the knowledge produced by research studies to academics, experts and laymen. (10 Marks)
- 05.(i). Briefly explain a framework that can be used to identify the causes and consequences of environmental problems. (04 Marks)
- (ii). Examine the importance of using a framework for an in-depth analysis in biogeography research. (06 Marks)
- (iii). Discuss how modern technologies can be integrated with biogeography to facilitate decision making procedures in identifying solutions to environmental problems. (10 Marks)
