

**UNIVERSITY OF COLOMBO – SRI LANKA**  
**FACULTY OF ARTS**  
**SPECIAL DEGREE EXAMINATION IN ARTS (GEOGRAPHY) – PART III**  
**FIRST SEMESTER END EXAMINATION – 2018**  
**GYG 4182 – Applied Biogeography**

**Two (2) hours**

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

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**Part I**

- 01.(i). Briefly explain the “multidisciplinary approach” in Biogeography. (04 Marks)
- (ii). Examine briefly about the application of modern geographical techniques in bio- geographical research. (06 Marks)
- (iii). Discuss the advantages of studying the concepts related to interactions between humans and the environment to find out solutions to the environmental issues using appropriate examples. (10 Marks)
- 02.(i). Explain the components related to ecosystem services using diagrams. (04 Marks)
- (ii). Explain the relationship between ecosystem services and Payment for Ecosystem Services (PES). (06 Marks)
- (iii). Examine the importance of applying different conservation measures to protect the balance of ecosystem services in up-country of Sri Lanka in a biogeographical point of view using appropriate examples. (10 Marks)
- 03.(i). What are the criteria applied for determining biodiversity hotspots? (04 Marks)
- (ii). Explain the suitability of the concept of biodiversity hotspots in studying the distribution pattern of world biodiversity. (06 Marks)
- (iii). “Concept of the biodiversity hotspots is an attempt of shortcut for a more complicated process”. Discuss your views on this statement using appropriate examples. (10 Marks)

## Part II

04.(i). Why preparation of different kinds of maps in different stages in a biogeographical research is important?

(04 Marks)

(ii). Examine in brief the importance of conducting a proper literature survey to perform a successful study on spatial differences in distribution of vegetation in a particular area.

(06 Marks)

(iii). Propose a methodology to carried out a study to assess the diversity and spatial variations of vascular plants above 10cm of girth class at breast height (GBH) in a forest reserve.

(10 Marks)

05.(i). Briefly explain concepts of Land Use and Land Cover.

(04 Marks)

(ii). Examine impact of land use and land cover change on bio-spatial arrangement of selected coastal wetland ecosystem.

(06 Marks)

(iii).Discuss the necessities of integrating economic, social and natural system information into a framework in analyzing the cause and effect relationships between man and environment.

(10 Marks)

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