

**UNIVERSITY OF COLOMBO – SRI LANKA**

**FACULTY OF ARTS**

**EXAMINATION IN ARTS- STUDY STREAM – PART I  
SECOND SEMESTER END EXAMINATION – 2017/2018**

**GYG 2220 – Biodiversity Conservation**

**Two hours**

Answer **three (03)** questions only.

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01. (i). Explain the difference between species and endemic species?  
(04 Marks)
- (ii). Explain the species richness of an ecological community using arbitrary data.  
(06 Marks)
- (iii). “Biodiversity is depend only on the species richness”. Do you agree with the above statement? Discuss the reasons for your answers using appropriate examples.  
(10 Marks)
02. (i).What are the criteria used to classify organisms in life kingdom?  
(04 Marks)
- (ii). Briefly describe the characteristics of five kingdoms.  
(06 Marks)
- (iii). Select an ecosystem and discuss how the biodiversity helps for the proper function of the selected ecosystem.  
(10 Marks)
03. (i). Explain the micro and macro nutrients.  
(04 Marks)
- (ii). Explain briefly explain how organisms help to decompose organic matters.  
(06 Marks)
- (iii). Select a biogeochemical cycle and explain with diagrams how do chemical elements or molecule moves through both biotic and abiotic components of an ecosystem.  
(10 Marks)

04. (i). What do you mean by “biodiversity hotspots” ?  
(04 Marks)

(ii). Explain briefly the strengths and weaknesses of selection criteria of biodiversity hotspots using examples.  
(06 Marks)

(iii). Select a biodiversity hotspot and discuss direct and indirect values of its biodiversity  
(10 Marks)

05. (i). Draw a diagram to depict the biotic and abiotic components and processes of an aquatic ecosystem  
(04 Marks)

(ii). Explain the different types of drivers impact on the changes of ecosystems with examples  
(06 Marks)

(iii). Discuss with examples how the anthropogenic causes encourage the biodiversity degradation and loss of aquatic ecosystems.  
(10 Marks)

06. (i). Briefly explain the *in-situ* and *ex-situ* conservation.  
(04 Marks)

(ii). Explain the advantages of *ex-situ* conservation methods using appropriate examples.  
(06 Marks)

(iii). Discuss the importance of encouraging *in-situ* conservation methods in protection of habitat of plants and animals and allowing of some human activities occur simultaneously  
(10 Marks)

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