

UNIVERSITY OF COLOMBO, SRI LANKA  
FACULTY OF ARTS  
THIRD YEAR EXAMINATION IN ARTS (ONLINE)  
SEMESTER I – 2020/2021

GYG 3153 – BIOGEOGRAPHY

**Instructions to Students:**

- The question paper starts on page 2.
- All written assessments must be **handwritten**. Handwriting must be **clear and readable**.
- Answers should be written on an **A4 size paper** (ruled/lined paper/or otherwise), using a **black ball point pen**.
- The **index number must be written on the top right-hand side** of each page of the answer script. Do not write your name anywhere on the answer script.
- **Number the pages** of the answer script using the following format at the **bottom of the page**: e.g., if it consists of 5 pages 1/5, 2/5 ...etc.
- Use the **common front page** (provided on LMS) as the first page of the answer script. You may print, or hand write the front page which **must** be the first page of your assessment.
- The **total number of pages** should be indicated on the front page of the answer script.
- **Scan/take photos of the answer script and convert it to a single PDF file** in the order of the page numbers.
- The full page of the answer script must be properly covered inside the scanned image, and the scanned image must be clear/readable.
- LMS does not permit individual pages to be uploaded separately.
- **The only acceptable file format is PDF. The PDF file should be named with your index number**, e.g. A 12345
- Uploading answer scripts as JPEG/JPG or any other form **will not** be permitted.
- Complete and upload the final version of the answer script to LMS **within the stipulated 5 hours**.
- Once the answer script is uploaded to LMS, take **a screenshot of the full page** of the LMS with the word 'submitted', as an acknowledgement and keep it with you.
- **If** there is an **unexpected technical issue** with the uploading of an answer script to LMS, you may send your answer script via email to [exam3@arts.cmb.ac.lk](mailto:exam3@arts.cmb.ac.lk) immediately.

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GYG 3153 – Biogeography

Duration: **5 hours** for completion and submission of answer scripts to LMS.

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

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01. i) Citing appropriate examples, explain the importance of the knowledge of historical and ecological biogeography in studying the diversity and habitats of organisms.  
(08 Marks)
- ii) “Biogeography is a subject which predominantly has a descriptive study approach”.  
Discuss this idea using suitable examples.  
(12 Marks)  
(Total 20 Marks)
02. i) Highlighting the differences and similarities of primary and secondary ecological successions, explain the development of communities and their habitats.  
(08 Marks)
- ii) Citing suitable examples, discuss to what extent the process of ecological succession and Darwin’s theory of the evolution of organisms can be related.  
(12 Marks)  
(Total 20 Marks)
- 03.i) Taking a wetland ecosystem of Sri Lanka as an example, explain the relationships between biotic and abiotic components of an ecosystem.  
(08 Marks)
- ii) “Biogeochemical cycles explain the movement of matter of biosphere”. Do you agree with this idea? Justify your answer.  
(12 Marks)  
(Total 20 Marks)

04. i) Evaluate the contributions of early scientists (taxonomists) in the classification of organisms.  
(08 Marks)

ii) Discuss the importance of the knowledge of life kingdom in studying functionality of different species in different ecosystems.  
(12 Marks)  
(Total 20 Marks)

05. i) Explain the flow of energy of an ecosystem, based on two important laws of thermodynamics.  
(08 Marks)

ii) “Food chain is not an accurate representation of the feeding relationship of an ecosystem”. Examine this statement providing suitable examples and illustrations.  
(12 Marks)  
(Total 20 Marks)

06. i) Explain the importance of knowledge on soil profile and soil series in studying the distribution of vegetation in an area.  
(08 Marks)

ii) Discuss how the multifunctional behaviors of soil contribute to nourish the habitats of organisms.  
(12 Marks)  
(Total 20 Marks)

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