

UNIVERSITY OF RUHUNA
BACHELOR OF SCIENCE (GENERAL) DEGREE LEVEL III (SEMESTER I)
EXAMINATION – AUGUST 2017

SUBJECT: BOTANY

COURSE UNIT: BOT 3112

Time: One and half Hour

(Advanced Ecology)

Answer any **three questions only**.

1) A)

i) What do you mean by “a biome”?

(10 Marks)

ii) List the major terrestrial biomes.

(5 Marks)

iii) What are deciduous trees?

(15 Marks)

iv) Briefly explain the method of estimating the cover of mosses on a substrate by using a “frame of pins”.

(40 Marks)

B)

The table 1 includes few parameters which were calculated in an ecological study, relevant to a grass species. Answer the following questions, by using those data.

| | |
|--------------------|------|
| Relative Frequency | 70 % |
| Relative Density | 50% |
| Relative Dominance | 60% |

i) Calculate the “Importance Value Index” (IVI value).

(10 Marks)

ii) Draw a phytograph for the above data.

(20 Marks)

2) Discuss the problem whether plants show a resistance against herbivores or not.

3) Write short notes on following.

i) Ecological succession

ii) Mutualism

iii) Flagship species

iv) Tundra forest

4) Briefly explain the effects of climate changes on the ecological features of tundra and desert biomes.