

UNIVERSITY OF RUHUNA

Bachelor of Science in Fisheries and Marine Sciences degree,

Level II Semester I – 2016 July/August

LIM2121 – Aquatic Biodiversity

Answer all questions

Time: 1 hour

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1. Abundance and biomass data of aquatic plants collected from a lake are given in the following table.

| Plant species | Abundance (number/m ²) | Biomass (g drywt) |
|-----------------------------|---------------------------------------|----------------------|
| <i>Eichornia crassipes</i> | 50 | 800 |
| <i>Lemna minor</i> | 150 | 20 |
| <i>Nymphaea sp.</i> | 2 | 200 |
| <i>Typha latifolia</i> | 6 | 1300 |
| <i>Eleocharis sp.</i> | 5 | 600 |
| <i>Monochoria sp.</i> | 18 | 52 |
| <i>Chara sp.</i> | 200 | 26 |
| <i>Ceratophyllum sp.</i> | 80 | 32 |
| <i>Nitella sp.</i> | 20 | 4 |
| <i>Cyperus ferrugineus</i> | 8 | 400 |
| <i>Pistia sp.</i> | 14 | 90 |
| <i>Ceratopteris cornuta</i> | 8 | 400 |
| <i>Salvinia molesta</i> | 12 | 72 |
| <i>Azolla sp.</i> | 500 | 35 |
| <i>Sagittaria</i> | 4 | 50 |
| <i>Alternanthera</i> | 35 | 10 |

- i). Analyse the given data in the above table using suitable indices/graphs and explain the dominance of aquatic plants in the ecosystem
- ii). Identify the key aquatic plant species and explain their ecological role in the ecosystem