RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

B.Sc. (Special) Degree in Applied Biology
Fourth Year – Semester I Examination – October/November 2017

ZOO 4211 – CULTURE AND PROPAGATION OF ORNAMENTAL AQUATIC PLANTS

Time: Two (02) hours

Answer ALL questions.

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1. 'Some exotic aquatic plants are gifted with inherent invasive traits; and the diversity and the present status of Sri Lankan aquatic ecosystems (water bodies) favour their invasion'. Do you agree or disagree with this statement? Justify your choice. **(100 marks)**

2. You have been assigned to design a large garden pond (small *wewa*) and the adjacent landscape in an eco-friendly tourist hotel in Habarana.

   a) Describe briefly the essential characteristics that must be incorporated in the proposed system that would make it similar to the *wewa* in a natural ecosystem. **(60 marks)**

   b) Make a list of plants (10 species) you would recommend for the project, justifying your selection. **(40 marks)**

3. a) You are provided with plantlets of a *Cryptocoryne* sp. which has a very high demand in the ornamental aquatic plant industry in Sri Lanka. The demand in the market is for fairly grown plants that could be introduced to aquaria within a very short period. Design an economical method which could be used by a person engaged in fish farming, to obtain such plants. **(40 marks)**

   b) Discuss merits and demerits of the method proposed in part (a). **(20 marks)**

   c) Suppose the intention of growing plants in part (a) is to export, outline the steps that you would follow from the nursery level to recipient country. **(40 marks)**

4. a) A sudden outbreak of *Pistia stratiotes* in Mihintale tank was reported recently. The problem has been directed to you with the view of getting advice to remedy the situation. Describe the strategies you would recommend to achieve the above expectation. **(60 marks)**

   b) "Do not dispose imported (introduced) aquatic plants into local waterways". Comment on this statement using examples. **(40 marks)**

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