



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B.Sc. in Applied Sciences
Third Year – Semester II Examination – July 2020**

BOT 3204 – FLORA OF SRI LANKA

Time: Two (02) hours

Answer FOUR (04) questions, including question No. 1.

1. a) Giving their families, list five (05) true mangrove plant species and five (05) mangrove associates found in Sri Lanka. **(30 marks)**
 - b) Describe with suitable examples, the salient adaptations of Sri Lankan mangrove flora. **(60 marks)**
 - c) State five (05) economic importance of Sri Lankan mangrove flora. **(10 marks)**

2. a) Explain briefly the establishment of forest formations/types in Sri Lanka in relation to climatic zonation and elevation differences. **(40 marks)**
 - b) Giving examples, describe briefly the unique features of common understorey and ground layer flora in distinctive near-coastal forests of Hambantota and Mannar districts. **(42 marks)**
 - c) Assign the following plant species of Family Phyllanthaceae in to their typical natural habitat and the specific microhabitat.
 - i. *Phyllanthus emblica* L.
 - ii. *Phyllanthus myrtifolius* (Wight) Müll. Arg.
 - iii. *Phyllanthus polyphyllus* Willd. **(3 x 06 marks)**

3. a) Describe the zonation and floristic composition of typical natural horizontal lotic freshwater bodies in Sri Lanka. **(40 marks)**
 - b) Explain your understanding of the term 'hygropetric water bodies'. **(10 marks)**
 - c) State family and botanical name of three (03) plant species found in typical hygropetric water bodies in Sri Lanka. **(15 marks)**
 - d) Discuss briefly the ecological and economic importance of the flora of *Wewa* ecosystems in Sri Lanka. **(35 marks)**

4. a) Describe the distribution of **three (03)** general categories of montane forests within the administrative districts in Sri Lanka. **(20 marks)**
- b) Stating their families, list **four (04)** 'climatic climax tree species' reaching up to the canopy and/or sub-canopy level/s in Sinharaja forest. **(20 marks)**
- c) Describe briefly the following.
- i. Buttress roots
 - ii. Cauliflory and ramiflory
 - iii. Drip-tip leaves
 - iv. Horizontal precipitation
 - v. Recalcitrant seeds
- (5 x 12 marks)**
5. a) Outline the classification of grasslands in Sri Lanka. **(20 marks)**
- b) Describe the striking features and floristic composition of Savannas in Sri Lanka and state the economic importance of their flora. **(60 marks)**
- c) Show the distribution of **three (03)** major types of dry-zone grasslands described by Holmes (1951) in a map of Sri Lanka, stating their specific locations. **(20 marks)**

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