



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

**B.Sc. (General) Degree in Applied Sciences
Second Year – Semester II Examination – February/March 2019**

BIO 2201 – SYSTEMATIC BIOLOGY

Time: Two (02) hours

Answer FOUR (04) questions including question no. 01.

1. Describe what speciation is and explain the different modes of speciation using appropriate examples. **(100 marks)**
2. Discuss the use of enzymatic proteins as a source of taxonomic evidence. **(100 marks)**
3. Comment on the following statements.
 - a) "Botanic gardens not only provide recreational grounds to public but also provide wealth to taxonomists" **(40 marks)**
 - b) "Plant taxonomy provides evidence for Forensic Science" **(60 marks)**
4. Write brief accounts on the following.
 - a) Selection of characters and preparation of character tables in numerical taxonomy. **(40 marks)**
 - b) Criteria used to determine the specific epithet (specific name) of a plant. **(60 marks)**
5.
 - a) Describe briefly **five (05)** functions of a herbarium. **(25 marks)**
 - b) Differentiate between a botanical Flora and a botanical monograph. **(25 marks)**
 - c) "Vernacular names of a plant cannot be used on worldwide basis". Comment on this statement. **(10 marks)**
 - d) What is the most abundant flavonoid pigment in the plant kingdom? Explain how this was used to solve the ambiguity regarding the taxonomic position of family Cactaceae. **(40 marks)**

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