



RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

B.Sc. (General) Degree in Applied Sciences
Second Year – Semester II Examination – October/ November 2017

BIO 2201 – SYSTEMATICS IN BIOLOGY (Old Syllabus)

Time: Two (02) hours

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

1. a) List six (06) functions of a herbarium. (12 marks)
- b) Illustrate three (03) types of parenchyma cell contents that are of significance to plant taxonomy. (30 marks)
- c) State two common methods of arranging preserved dry specimens in herbarium cabinets. (05 marks)
- d) What is meant by plant identification? (10 marks)
- e) State six (06) essential elements in the label of a herbarium specimen. (12 marks)
- f) List the sources of cytological evidence used in plant taxonomy. (12 marks)
- g) What are the common serological methods employed in phytotaxonomy? (10 marks)
- h) Give three (03) reasons which make pollen grains suitable as a source of taxonomic evidence. (09 marks)
2. a) "Botanic Gardens not only provide recreational grounds to the public, but also provide wealth to taxonomists". Justify this statement. (60 marks)
- b) Differentiate between a botanical Flora and a botanical monograph. (40 marks)
3. Write short notes on the following.
 - a) Author citation in taxonomic literature (70 marks)
 - b) Criteria used in giving the generic name of a plant (30 marks)
4. Discuss the use of flavonoids as a source of evidence in plant taxonomy. (100 marks)
5. "Plant taxonomy provides evidence in forensic science". Justify giving three (03) examples. (100 marks)

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