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

**B.Sc. (General) Degree in Applied Sciences  
Second Year Semester I Examination –April / May 2016**

**BIO 2201- SYSTEMATICS IN BIOLOGY**

**Time: TWO hours.**

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**Answer question no. 1 and any three (03) of the others.**

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1. a) "The type/types of DNA to be used vary, based on the taxonomic problem to be solved." Discuss briefly the above statement. (30marks)
  - b) What information would you obtain from "folders" covering the specimens at National Herbarium? (10 marks)
  - c) "Botanic gardens not only provide recreational grounds to public but also provide wealth to taxonomists" Comment briefly on the above statement. (21marks)
  - d) Give two reasons which make flavonoids suitable as source of taxonomic evidence. What is the most abundant flavonoid in the plant kingdom? (15 marks)
  - e) With reference to International Code of Zoological Nomenclature (ICZN), describe principle of first reviser, principle of priority and principle of coordination. (24 marks)
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2. "Foundation stone for Systematics in Sri Lankan flora was laid by foreign scientists." Do you agree with this statement? Justify your answer. (100 marks)
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3. Write short notes on the following.
    - a) Colour preservation of hardy plant material (30 marks)
    - b) Author citation in botanical nomenclature (70 marks)
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4. a) State different serological methods commonly employed in phytotaxonomy. (15 marks)
  - b) Discuss the use of any one of the methods mentioned above. (85 marks)

5. a) List out five taxonomically important characters of pollen grains. (15 marks)
- b) Give five examples where pollen characters have successfully being used to solve problems in plant taxonomy. (25 marks)
- c) Describe criteria used to select the generic name of an unknown plant. (60 marks)

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