



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

**B.Sc. (General) Degree in Applied Sciences  
First Year – Semester I Examination – April/ May 2015**

**BIO 1201 – PLANT DIVERSITY I**

**Time: Two (02) hours**

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**Answer four (04) questions only.**

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1. a) Giving examples, describe the two different types of life cycles that occur among members in the Division Rhodophyta. **(60 marks)**  
b) Explain briefly why brown algae are separated from green and red algae and placed in Subkingdom Heterokonta (Stramenophila). **(40 marks)**
2. a) Using appropriate examples, illustrate the vegetative diversity found in order Nostocales. **(80 marks)**  
b) Give five economic / ecological importances of algae. **(20 marks)**
3. a) Describe the major steps involved in the development of six kingdom classification of organisms. **(80 marks)**  
b) Do you agree with the above system of classification? Justify your answer. **(20 marks)**
4. a) Give reasons as to why members of Phycomycetes are considered as fungi-like organisms. **(20 marks)**  
b) Fungi are characterized by absorptive mode of nutrition. Briefly explain what is meant by “absorptive mode of nutrition”. Mention the ecological function of this mode of nutrition. **(20 marks)**  
c) Compare the following pairs. In each pair, mention which is more advanced in evolution. Give one example for each. **(60 marks)**
  - i) coenocytic mycelium and uninucleate mycelium
  - ii) sporangiospore and conidium
  - iii) ascus and basidium

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5. a) Explain as to why Deuteromycetes are grouped under that phylum. (20 marks)
- b) Describe the life cycle of a named fungus that shows a dikaryotic phase. (50 marks)
- c) Write a short essay on the importance of fungi to man. (30 marks)

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