RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

B.Sc. (General) Degree in Applied Sciences
First Year – Semester I Examination –May/June 2016

BIO 1201 – PLANT DIVERSITY I (REPEAT)

Time: Two (02) hours

Answer <u>any four (04)</u> questions only.

1. a) Describe the three different types of lifecycles that occur among members in Division Phaeophyta. **(60 marks)**

   b) State five economic / ecological importance of algae, giving examples. **(40 marks)**

2. a) Illustrate the vegetative diversity found in families Scytonemataceae and Stigonemataceae, using appropriate examples. **(80 marks)**

   b) "Cyanobacteria help in increasing soil fertility." Justify. **(20 marks)**

3. a) What are the major categories of cyanotoxins produced by Cyanobacteria? Give one example per each category you mentioned. **(16 marks)**

   b) Name any health problem caused by cyanobacteria in man. **(06 marks)**

   c) Compare the cell wall material, photosynthetic pigments, stored food and colour of Chlorophyta, Phaeophyta, Rhodophyta and Bacillariophyta. **(48 marks)**

   d) Illustrate the habit of any three macroscopic, green and/ or red algae, using complete diagrams only. **(30 marks)**

4. a) Explain why Phycomycota is considered as Fungi-like oraganisms. **(70 Marks)**

   b) Write a short essay on the importance of fungi to man. **(30 marks)**

5. a) Slime molds are considered as fungi-like organisms. Compare and contrast the features of slime molds with typical characteristics of true fungi. **(30 marks)**

   b) Describe the mode of nutrition of fungi. Mention the ecological function of this mode of nutrition. **(30 marks)**

   c) Give a brief account on different types of septa found in true fungi. **(40 marks)**

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