

The Assam Royal Global University, Guwahati
Royal School of Life Sciences
M.Sc. (BOTANY) 1st semester
Semester End Examination, December 2018
Course Title: Biology & Diversity of Algae, Bryophytes & Pteridophytes
Course Code: BOT144C103

Time: 3 Hours

Maximum Marks: 70

Note: Attempt all questions as per instructions given.

The figures in the right-hand margin indicate marks.

Section – A

- Q.1.** Attempt **all** questions. (Maximum word limit 50) **2x8**
- A. What is cytoplasmic streaming?
 - B. What is the basis of Lee's Classification?
 - C. Write the systematic position of *Chara*.
 - D. What is a diatomite? Mention its use.
 - E. What is the reserve food of Xanthophyceae and Phaeophyceae?
 - F. What are gemma cups? Give illustrative example.
 - G. Write about the systematic position of *Isoetes*.
 - H. What is heterospory?

Section – B

- Q.2.** Answer **any 3**: (Maximum word limit 200) **4x3**
- A. Explain about the pigmentation found in algae.
 - B. Describe in brief the life cycle *Bacracospermum*.
 - C. Describe in brief the life cycle *Chara*.
 - D. Compare between Charophyta, Chlorophyta and Embryophyta.
- Q.3.** Answer **the following**: (Maximum word limit 400) **7x2**
- A. Discuss in details about harmful algal blooms.
 - B. Describe in brief the ecological and economical importance of algae.
 - C. What are algal blooms, algal culture and eutrophication.
- Q.4.** Answer **any 2**: (Maximum word limit 400) **7x2**
- A. Discuss in brief the evolution of gametophytes in Bryophytes.
 - B. Discuss in details the life cycle of *Polytrichum*.
 - C. Write about the diversity and distribution of Bryophytes in North East India.
- Q.5.** Answer **any 2**: (Maximum word limit 400) **7x2**
- A. Describe the life cycle of *Pteris* with diagrams
 - B. Discuss about the stellar system in Pteridophytes.
 - C. What is a telome? Discuss telome theory.