1st year 1st Semester Exam'2011, Session: 2010-11
Course No. FES 101 (Minor course of Biochemistry & Molecular Biology)
Title: Botany
Credit: 3 Marks: 70 Time: 3 hours
DEPARTMENT OF FORESTRY & ENVIRONMENTAL SCIENCE
SHAHJALAL UNIVERSITY OF SCIENCE & TECHNOLOGY, SYLHET.

**Question 1 is compulsory*
**Answer any other two from the rests for each part*

PART A

1. Write Short Note (any one) 1x5=5

   (a) Succession of life form on earth (b) Ecological niche

2. (a)Write down the development process of pollen grains with necessary illustrations. 8
   (b) Write a short note on 'Co-evolution', emphasizing its significance in biotechnology. 5
   (c) Describe 'double fertilization' with necessary illustrations. 2

3. (a) Write down the importance of studying plant ecology and plant taxonomy in Biochemistry and Molecular Biology. 6
   (b) Write down the anatomical adaptations of hydrophytes. 8
   (c) Why meiosis cell division is necessary? 1

4. (a) As a biochemist what role you can play in the forestry sector of Bangladesh? 5
   (b) Write down a brief history of plants taxonomic classification. 5
   (c) Discuss the different methods of plant disease control. 5

PART B

1. Write Short Note (any one) 1x5=5

   a) Cloning b) Bentham and Hooker's classification system

2. (a) Write down the 'homogamy' and 'clestogamy' behaviors of plant pollination. 5
   (b) Why does nature favor cross pollination? 5
   (c) Write a short note on 'parthenocarpy' implicating its significance in biotechnology. 5

3. (a) What do you mean by primary and secondary growth of plants? 3
   (b) Write down the detailed process of mitosis cell division with necessary figures. 10
   (c) Write down the significance of pollination in forest ecosystems. 2

4. (a) Write down the development of the concept of disease in plants. 6
   (b) Define the followings: 3x3=9
   (i) Ecological succession (ii) Population dynamics (iii) Hybridization