

Shahjalal University of Science and Technology, Sylhet, Bangladesh
Department of Forestry and Environmental Science
1st Year 1st Semester Examination 2008 (Session: 2007-2008)
Course Title: **Forest Botany, Course No: FOR-111**
Credit: 03, Total Marks: 70, Time: 3 Hours

Indications: Question No. 1 from each section is compulsory. Answer any other two questions for each section from remaining.

Section-A

1. Write short note on any one of the followings: 5
 - a) Stomata
 - b) Vascular bundle and its arrangement
2. a) Write the importance of studying Ecology, Genetics, Microbiology and Palaeobotany in Forestry. 4 × 3 = 12
b) What is the importance of studying Botany in Forestry? 3
3. a) Describe the process of fertilization of higher plants with necessary sketch. 10
b) Write a note on the process of development of embryo and endosperm. 5
4. a) Write in brief the adaptive features of Xerophytes, Mesophytes and Epiphytes. 3 × 3 = 9
b) Write the special adaptations of halophytes. 6

Section-B

1. Write short note on any one of the followings: 5
 - a) Linkage and crossing over
 - b) Apical Meristem
2. a) Write the function of following cell organelles: 5 × 3 = 15
 - i) Golgibodies ii) Mitochondria iii) Lisogomes
 - ii) Plastids and v) Endoplasmic reticulum
3. a) Describe the process of secondary growth in vascular higher plants. 10
b) Describe the process of hybridization step by step. 5
4. a) Describe the structure of DNA 8
b) Why is Gene called the chemical basis of heredity? 3
c) State the Mendel's Laws of inheritance. 4