

April 2025
B.A./B.Sc.
Fourth Semester
GENERIC ELECTIVE – 4
BOTANY
Course Code: BOG 4.11
(Economic Botany & Plant Biotechnology)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Explain the morphology of wheat. Mention three uses of wheat. What are the important cereals of Nagaland and give their significances? 8+3+3=14
2. Give an account on the origin of maize. List the different varieties of maize. Give five uses of maize. 6+3+5=14

UNIT-II

3. Write the botanical name and family of soyabean. Give the general characteristics of soyabean and its uses. 2+12=14
4. What are spices? Give the general account of black pepper and its uses. 2+12=14

UNIT-III

5. (a) Differentiate between essential oils and fatty oils. 7
(b) Write a note on different categories of vegetable oils. 7
6. What is the botanical name and family of cotton plant? Briefly describe the morphology and uses of cotton. 2+12=14

UNIT-IV

7. What is micropropagation? Discuss in detail the steps involved in micropropagation. $2+12=14$
8. Discuss on embryo culture and its applications. $9+5=14$

UNIT-V

9. Write a note each on the following: $7 \times 2 = 14$
- (a) Cloning vector
 - (b) Insertional inactivation
10. With a neatly labelled diagram, describe the Watson and Crick double helix DNA. Add a note on the function of tRNA. $12+2=14$
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