

SET-C
B.Sc. Life Science/ Sem VI
(Paper Title: Economic Botany and Biotechnology)
Unique Paper Code: 42167901

Department Code: 216

C.No: DSE

Time: 3 Hours +1 hour

Maximum Marks: 75

(Write your University Roll Number and Paper Title & Code on top of the
Answer Sheet)

Attempt any four questions in all. All questions carry equal marks.

1. Give a detailed account of the concept of Centres of Origin of crop plants. Name some research centres associated with the improvement of rice and wheat. How are grain millets different from cereal crops? How can millets help in tackling food insecurity issues in India?
2. What are natural fibres. What are the various types of plant fibres? Write the botanical names of some tropical legumes grown in semi-arid regions of India. Write a short note on economic uses of Soybean and Gram.
3. Draw well labelled diagrams of V.S Tea leaf and L.S of Clove bud. What is the difference between lint and fuzz? Give the methods of production of mercerized and non-absorbent cotton and list their economic uses.
4. What is ELISA? Mention the techniques and approaches that are presently used to produce monoclonal antibodies. Mention the names of the states where *Bt*-cotton is grown and discuss the advantages of *Bt*-cotton to farmers and industrialists.
5. How are aseptic conditions maintained in Plant Tissue Culture laboratories? Give the composition of any nutrient media used for micropropagation. What are synthetic seeds? Give their potential applications.
6. PCR techniques are important in detection of infections. Why is this test used for detection of Corona Virus infection and how is it conducted? Discuss its advantages and limitations.