

B.Sc. SEM-VI (Hons.) Examination-2021
Subject- Botany
Paper – DSE-4
Horticultural Practices & Post Harvest Technology

Full Marks –40

Time – 2 hrs

Answer any eight questions:

8x5=40

1. Discuss any five basic principles of gardening. 5
2. Discuss the features of landscaping and its plant components. 5
3. What are the processes of prevention or delay of microbial decomposition of fruits and vegetables? 5
4. Mention the important characters of Banana and Chili . 5
5. Briefly describe the method of Hydroponics and it's economical importance. 5
6. Write short notes on vermicompost. 5
7. Discuss on biopesticides produced from different plant sources with their biochemical components. 5
8. Classify the ornamental plants based on applications/uses. 5
9. Write Short notes on commercial classes of roses (write proper commercial names with their brief description). 5
10. Write brief note on any two plant diseases caused by viruses. 5

B.Sc. SEM-VI (Hons.) Examination-2021
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Industrial & Environmental Microbiology

Full Marks –40

Time – 2 hrs

1. Answer any eight questions from the following: - 5x8=40
- A. With schematic representation, discuss steps of Solid-State Fermentation. 5
 - B. With suitable illustration discuss different phases of microbial growth curve in Batch-Fermentation. 5
 - C. Discuss the process of industrial Amylase production with the help of microbes. 5
 - D. Concisely discuss Citric Acid production involving microbes, with suitable schematic outline. 5
 - E. With the help of a flow diagram discuss commercial alcohol production using microbes. 5
 - F. Briefly discuss enzyme immobilization technique. 5
 - G. Discuss different sources of Surface water pollution. Name different parameters used to measure water pollution. 5
 - H. Discuss the advantages and disadvantages of bioremediation. 5
 - I. Define BOD, COD, TDS & TOC. Very briefly discuss the role of VAM in agriculture. 5
 - J. With suitable diagram briefly discuss the mechanism of Nodule formation by *Rhizobium* in case of symbiotic nitrogen fixation. 5