

**B.Sc. 6th Semester (Honours) Examination, 2020 (CBCS)**

**Subject : Botany**

**Paper : DSE-4**

**(Horticultural Practices and Post-Harvest Technology)**

**Time : 2 Hours**

**Full Marks : 40**

**The figures in the margin indicate full marks.**

**Candidates are required to give their answers in their own words as far as practicable.**

- 1. Answer any eight questions from the following 8x5=40**
- i) Mention the various branches of horticulture 5
  - ii) State the propagation process of horticultural crops through grafting 5
  - iii) Write a short note on biofertilizer 5
  - iv) Give a brief idea of landscaping and gardening 5
  - v) Highlight the role of tissue culture in horticulture 5
  - vi) Make an account of important diseases associated with vegetable crops 5
  - vii) Write short notes on a) Bonsai and b) Hydroponics 2.5+2.5
  - viii) Discuss in brief the scope and importance of horticulture. 2.5+2.5
  - ix) Write the scientific name and uses of Mango plant 2+3
  - x) Mention the salient features and uses of Rose plant 3+2

**B.Sc. Semester – VI (Hons.) Examination 2020**  
**Subject - Botany**  
**Paper: DSE-4 (Industrial & Environmental Microbiology)**

**Time: 2 Hrs**

**F.M. - 40**

**A. Answer any eight questions:**

**5 x 8 = 40**

1. Draw and describe different parts of a typical bioreactor.
2. Describe with diagram of any two sampling methods of airborne microorganisms.
3. Prepare a precise note on activated sludge method of wastewater treatment. Mention its advantages
4. Discuss any two methods of downstream processing studied by you.
5. Briefly describe the methods of immobilization. Mention its advantages.
6. Describe the process of isolation of root nodulating bacteria (flowchart only).
7. Write a brief note on types of Mycorrhiza.
8. Briefly discuss the method of MPN determination of a water sample.
9. Make a note on ethanol production by microbial fermentation mentioning the substrate used and the producer organism.
10. Discuss the role of 5 microorganisms for different industrial applications (Only table).