

Q.P. Code :10995

[Time: 2.30 Hours]

[Marks:60]

Please check whether you have got the right question paper.

- N.B:
1. Answer **all five** questions
 2. **All** questions carry **equal** marks.
 3. Draw neat & labelled diagrams where necessary.

- Q.1 Describe in detail the structure and composition of the bacterial cell walls. **12**
- OR**
- Q.1 a. Explain the effect of various environmental factors on microbial growth. **06**
b. Describe the mode of action and resistance to antibiotics citing any two examples. **06**
- Q.2 Give an account of the alternate pathway of the complement and add a note on its regulation. **12**
- OR**
- Q.2 Write briefly on:
a. Rheumatoid arthritis. **06**
b. Phage display. **06**
- Q.3 Explain ammonia and nitrate uptake add a note on its metabolism. **12**
- OR**
- Q.3 Write short notes on:
a. Pollen self-incompatibility. **06**
b. Biosynthesis of ethylene and its functions. **06**
- Q.4 Describe:
i. Floral development in plants. **06**
ii. Viral infections of plants. **06**
- OR**
- Q.4 Give an account of:
a. Plant response to salt stress. **06**
b. Hypersensitive reactions. **06**
- Q.5 Write short notes on **any three**: **12**
a. Purple and green bacteria
b. Methanogens
c. Primary and secondary immune modulation
d. spleen
e. Double fertilization
f. Programmed cell death in plants