

Time – 3 hr.

Marks -100

N.B.

1. All questions are compulsory.
2. Draw neat labelled diagrams wherever necessary.
3. All questions carry equal marks.

**Q.1 Attempt any two**

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- a What is sterilization? Explain in detail any two methods of sterilization.
- b Write a detailed note on colony characters exhibited by bacteria.
- c What is pure culture? Discuss any one method of preparation of pure culture.
- d What are antibiotic? Describe method of antibiotic production & write its uses.

**Q.2 Attempt any two**

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- a Give an account of post-fertilization changes in the life cycle of *Batrachospermum*.
- b Describe the sexual reproduction of *Polysiphonia*.
- c Describe the thallus structure of *Vaucheria*. Write classification of *Vaucheria*.
- d Explain the general characters of Xanthophyta.

**Q.3 Attempt any two**

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- a Give a brief account of basidiocarp in Basidiomycetes.
- b Describe L.S. of the gills of *Agaricus*, Add a note on its systematic position.
- c Describe life cycle of *Puccinia* on the primary host.
- d . Give detailed general characters of Deuteromycetes.

**Q.4 Attempt any two**

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- a Describe in detail the causal organism, symptoms and control measures of Tikka disease of Groundnut.
- b Describe the predisposing factors and disease cycle of leaf curl of Papaya.
- c Name the causal organism and describe the symptoms, disease cycle & control measures of White rust disease.
- d Give a general account of Biological control of plant disease.

**Q.5 Write short notes. (Attempt any Four )**

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- a Single staining.
- b Algae as microbes.
- c Cell division in *Pinnularia*.
- d Aecidiospore of *Puccinia*.
- e Classification of *Alternaria*.
- f Give the diagrammatic presentation of Damping off seedling disease.

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