

(3 Hours)

[Total Marks-100]

All questions are compulsory

Figures to the right indicate full marks

Draw neat and labelled diagrams wherever necessary

Q.1 Attempt Any Two

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- Write general characters of *Mycoplasma* & *Actinomycetes* as microbes.
- What is sterilization? Explain in detailed any two methods of sterilization.
- Define culture media? Explain in brief Liquid and solid culture media preparation studied by you
- What is pure culture? Discuss any one method of preparation of pure culture.

Q.2 Attempt Any Two

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- Describe thallus structure of *Batrachospermum*. Add a note on chntransia stage.
- Give an account of post fertilization changes in *Polysiphonia*..
- Give an account of sexual reproduction in *Vaucheria*.
- Explain the general characters of Chrysophyta.

Q.3 Attempt Any Two

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- Give an account of sexual reproduction in Basidiomycetes.
- Describe L. S. of the gills in *Agaricus*. Add a note on systematic position.
- Describe the stages in the life cycle of *Puccinia* on the secondary host.
- Describe the life cycle of *Alternaria*. Add a note on its classification.

Q.4 Attempt Any Two

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- Describe in detail the causal organism, and symptoms of damping of seedlings.
- Give a detailed account of leaf curl disease.
- Describe in detail the disease cycle of Citrus canker.
- Give a general accout of biological control methods of plant diseases.

Q.5 Write short notes. (Attempt any four)

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- a) Acid fast staining
 - b) Systematic position of *Batrachospermum*
 - c) Single cell structure of *Pinnularia*.
 - d) Conidia of *Alternaria*
 - e) Teleutospore of *Puccinia*
 - f) Give the digramatic representation of Damping off seedling disease
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