

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 Give general characters of Bacteria and Mycoplasma.
- b Write a brief note on dry heat & moist heat sterilization.
- c What is pure culture? Enlist their types and discuss any one method of preparation of pure culture.
- d Enumerate and explain steps involved in commercial production of antibiotics (*Penicillin*).

Q.2 Attempt any two

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- a Describe the thallus structure of *Batrachospermum*. Add a note on its chlamydomonad stage.
- b Discuss the sexual reproduction of *Polysiphonia*.
- c Give an account of auxospore formation in *Pinnularia*.
- d Explain the general characters of Xanthophyta.

Q.3 Attempt any two

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- a Describe the different stages of the life cycle of *Agaricus*.
- b Give a detail account on the classification of basidiomycetes upto orders.
- c Describe the mycelia characteristics and reproduction in *Alternaria*.
- d Describe the stages of life cycle of *Puccinia graminis* on Wheat plant.

Q.4 Attempt any two

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- a Give causal organism, symptoms, disease cycle and control measures of 'Tikka disease of groundnut'.
- b Describe various physical methods of plant disease control.
- c Write the main symptoms, nature of causal organism, disease cycle and control measures of 'Citrus canker'.
- d Give causal organism, symptoms, disease cycle and control measures of 'White rust disease'.

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

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- a Principle of Gram's staining
- b Economic Importance of Bacillariophyta.
- c Systematic position of *Vaucheria*
- d Asexual reproduction in basidiomycetes.
- e Control measures of 'Damping off disease'
- f Pycnidium of *Puccinia*.