

**Q.P. Code : 19273**

**[Time: : 2 $\frac{1}{2}$  Hours]**

**[ Marks:75]**

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
  2. Figures to the right indicate full marks.
  3. Draw neat labelled diagrams wherever necessary.

- Q.1.** Attempt **any two** of the following : **15**
- a. Give an account of sexual reproduction in *Vaucheria*.
  - b. Describe the thallus structure and the cystocarp in *Batrachospermum*.
  - c. Explain the mode of sexual reproduction in Pinnate diatoms.
  - d. Describe the thallus of *Polysiphonia*.
- Q.2.** Attempt **any two** of the following : **15**
- a. Describe the basidiocarp of *Agaricus*.
  - b. Explain the macrocyclic life cycle of *Puccinia*.
  - c. Describe the mycelial characters and asexual reproduction in *Alternaria*.
  - d. Give an account of sexual reproduction in Homobasidiomycetes.
- Q.3.** Attempt **any two** of the following : **15**
- a. Describe the disease cycle of Tikka disease.
  - b. Describe the causal organism and symptoms of damping off disease.
  - c. What are symptoms of Tikka disease? Add a note on its control measures.
  - d. State the symptoms and control measures of loose smut of Jowar.
- Q.4.** Attempt **any two** of the following : **15**
- a. State the general characters of Algae and Protozoa.
  - b. Write a detailed note on colony characters exhibited by bacteria and fungi.
  - c. Explain the principle and protocol for double staining.
  - d. Enumerate and explain the steps involved in the commercial production of Penicillin.
- Q.5.** Attempt **any three** of the following : **15**
- a. Systematic position of *Polysiphonia*.
  - b. Cell structure of *Pinnularia*.
  - c. Phragmobasidium.
  - d. Control measures of damping off disease.
  - e. Dry heat sterilization.
  - f. Endospore staining.

\*\*\*\*\*