

- NB:-
- i. All questions are compulsory
 - ii. All questions carry equal marks
 - iii. Draw neat & labeled diagrams wherever necessary
 - iv. Figure to the right indicates full marks.

Q.1. Attempt any two 15M

- a. Explain the inhibition of nucleic acid synthesis by streptomycin.
- b. Give a brief account of microbiological assay of antimicrobial compounds
- c. What are antibiotics? Discuss their mode of action.
- d. Describe the inhibition of cell wall synthesis by Penicillin. Add a note on chemical structure of Penicillin.

Q.2. Attempt any two 15M

- a. Describe in brief production of amylase enzyme. Add a note on its uses.
- b. What is fermentation? Explain the process of microbial fermentation.
- c. Give the sources, raw material used & process of industrial production of Glutamic acid
- d. Discuss the technique of producing Penicillin antibiotic.

Q.3. Attempt any two 15M

- a. Describe the sexual reproduction in *Albugo*. Add a note on its Systematic position.
- b. Discuss in brief the life cycle of *Fusarium*
- c. Explain the stages of *Puccinia* found on Primary host.
- d. Give a brief account of asexual reproduction in *Xylaria*. Add a note on its classification.

Q.4. Attempt any two 15M

- a. Give causal organism, symptoms & control measures of wilt of Pigeon Pea
- b. Discuss various biological control methods of plant diseases.
- c. Explain different chemical methods to control plant diseases.
- d. Describe in detail predisposing factors & disease cycle of Tikka disease of groundnut.

Q.5. Attempt any three 15M

- a. Disc plate technique
- b. Chemical assay
- c. Uses of Glutamic acid
- d. Asexual reproduction in *Albugo*
- e. Pycnidial stage
- f. Symptoms & control measures of Tikka disease of groundnut.
