

**Section A :** 10 questions, 2 questions from each unit, short answer, all questions compulsory.

**Total marks : 05**

**Section B :** 10 questions, 2 question from each unit, 5 question to be attempted, at least 1 from each unit, answer approximately in 250 words. **Total marks : 25**

**Section C :** 04 questions (question may have sub-division), not more than 1 question from each unit, descriptive type, answer in about 500 words, 2 questions to be attempted.

**Total marks : 20**

## PAPER II

### MYCOLOGY, MICROBIOLOGY AND PLANT PATHOLOGY

**Unit-1** Characteristics and broad classification of fungi. Structure and life history of *Albugo*, *Penicillium*, *Phyllactinia* and *Morchella*. Elementary knowledge of Mycorrhizae and their symbiotic significance.

**Unit-2** Structure and life history of *Puccinia*, *Ustilago*, *Agaricus* and *Alternaria*. Economic importance of fungi: food, industries, medicine and biological controls.

**Unit-3** Characteristics, classification, structure and reproduction of bacteria. Isolation and pure culture of bacteria, Gram's staining. Salient features of Microbiology of water, soil and food.

**Unit-4** Characteristics, structure and economic importance of Mycoplasma. Viruses: Nature, structure, transmission and multiplication of plant viruses.

**Unit-5** Principles of plant pathology. Methods of disease control. Important symptoms of plant diseases of the following : Green ear disease of Bajra. Loose smut of Wheat, Black Rust of Wheat, Citrus canker. Little leaf of *Solanum melongena* (Brinjal). Yellow vein mosaic of Bhindi, Tikka disease of ground nut.