

BOT-553

Applied Mycology and Plant Pathology

M.Sc. Botany (MSCBOT-12/13/16/17)

Second Year, Examination, 2018

Time : 3 Hours

Max. Marks : 80

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B, C. Attempt the questions contained in these Sections according to the detailed instructions given therein.

Section-A

(Long Answer Type Questions)

Note : Section 'A' contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. Write in detail on mushroom cultivation.
2. Describe scope and techniques of fungal biotechnology.
3. Write in detail about bacterial diseases in plants.
4. Describe plant diseases of pulses.

Section-B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer *four* (04) questions only.

1. Write in short about mycorrhizae.
2. Write in brief about fungi as biopesticides.

3. Describe in short about industrial production of *Penicillin*.
4. Discuss in brief about the role of fungi in biodegradation.
5. Give classification of fungal diseases in plants in brief.
6. Describe symptomatology of phytoplasmal diseases in plants.
7. Describe any *one* plant disease of any vegetable.
8. Describe any *one* disease caused by virus in plants.

Section–C

(Objective Type Questions)

Note : Section ‘C’ contains ten (10) objective type questions of one (1) mark each. All the questions of this Section are compulsory.

Choose the correct option for each of the following questions :

1. Viruses can multiply in :
 - (a) All living cells
 - (b) Bacteria only
 - (c) Specific living cells
 - (d) Rotten food
2. Ammonia is converted to nitrite by :
 - (a) *Nitrobacter*
 - (b) *Nitrosomonas*
 - (c) *Bacillus*
 - (d) *Aspergillus*
3. Button mushroom is a species of :
 - (a) *Morchella*

- (b) *Pleurotus*
 - (c) *Agaricus*
 - (d) *Lycoperdon*
4. *Colletotrichum* belongs to order/form order :
- (a) Moniliales
 - (b) Agaricales
 - (c) Melanoconiales
 - (d) Endomycetales
5. *Venturia inaequalis* causes the disease :
- (a) Red rot of sugarcane
 - (b) Tikka disease of groundnut
 - (c) Potato scab
 - (d) Apple scab

Indicate whether the following statements are True *or* False :

- 6. *Mycorrhizae* show saprophytic habit. (True/False)
- 7. *Agaricus* belongs to Homobasidiomycetidae.
(True/False)
- 8. Some species of *Rhizopus* produce lactic acid.
(True/False)
- 9. *Plasmodiophora brassicae* causes club root disease of cabbage.
(True/False)
- 10. Leaf spot disease of groundnut is caused mainly by *Cercospora personata*.
(True/False)

