

Exam. Code : 210001

Subject Code : 4845

M.Sc. (Botany) Semester—I

FUNGI & PLANT PATHOLOGY

Paper—BOT-C 512

Time Allowed—3 Hours]

[Maximum Marks—50

SECTION—A

Note :— Answer ALL Parts. Your answer should not exceed
4 lines. 8×1=8

Differentiate the following :

1. Arthrospores and Chlamyospores
2. Cleistothecium and Apothecium.
3. Synnema and Sporodochium.
4. Ascocarp and Basidiocarp.
5. Holocarpic and Eucarpic.
6. Rhizopus and Mucor.
7. Systemic fungicides and non systemic fungicides.
8. Smuts and Rusts.

SECTION—B

Note :— Attempt any **SEVEN** questions. Each question carries
3 marks. Your answer should not exceed **2** pages.

7×3=21

1. Write in brief classification of fungi written by Alexopoulos *et al* 1995 and how it is different from Hawksworth *et al* 1995.
2. Differentiate the following :
Ustilago and Tilletia, Saprolegnia and Achlya, Protomyces and Taphrina.
3. Describe the major types of ascocarps ? How they are significant in the classification of fungi ?
4. Describe the various cultural methods of plant disease control.
5. Write causal organism, symptoms and management of apple scab.
6. Describe in brief the role of sex hormones in fungi.
7. Parasexual cycle – a brief account.
8. Write the major contributions of Alexander Flemmings.
9. Write causal organism, symptoms and management of Tikka disease of ground nut.
10. Differentiate Yellow, Black and Brown rust of Wheat on the basis of causal organism, symptoms and epidemiology.

SECTION—C

Note :— Attempt any **THREE** questions. Each question carries 7 marks. Your answer should not exceed 4 pages.

3×7=21

1. What are Mycorrhizal fungi ? Describe the significance of endomycorrhizal fungi.
2. What is biological control ? Write the mechanism of action of biocontrol agents with suitable examples.
3. Write in brief the biochemical defence mechanism of plants against plant pathogens with suitable examples.
4. What are fungicides ? Describe in brief the mode of action of non-systemic fungicides.
5. What is plant disease forecasting ? Write in brief the various methods used in plant disease forecasting.