

Reg. No. :

(6 pages)

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M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2021

First Semester

Botany - Core

MYCOLOGY, LICHENOLOGY AND PLANT
PATHOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Pick the odd one out

(a) Apothecium

(b) Basidiocarp

(c) Cleistothecium

(d) Plasmodium

2. Which pair of the following belongs to basidiomycetes?
- (a) Puffballs and *Claviceps*
 - (b) *Peziza* and stink horns
 - (c) *Morchella* and mushrooms
 - (d) Birds nest Fungi and puffballs
3. One of the following is a heteroecious fungus?
- (a) *Albugo* (b) *Phytophthora*
 - (c) *Puccinia* (d) *Ustilago*
4. Fungi usually store the reserve food material in the form of
- (a) Starch (b) Lipid
 - (c) Glycogen (d) protein
5. In lichens, sexual reproduction belongs to
- (a) Fungal and algal partners (both)
 - (b) Either fungal partner or algal partner (not both)
 - (c) Algal partner only
 - (d) Fungal partner only

6. Most lichens are
- (a) Homoiomerous
 - (b) Heteromerous
 - (c) Both
 - (d) None of these
7. Pick out the wrong pair
- (a) Pandemic – Disease not prevalent throughout the country, continent or the world.
 - (b) Epidemic – The diseases which appear very virulently among the people
 - (c) Endemic – The diseases which appear very virulently among the people
 - (d) Sporadic – Disease which occurs at very irregular interval and location
8. The Factors which induces disease outbreak is?
- (a) High temperature
 - (b) High humidity
 - (c) Susceptible varieties
 - (d) All the above
9. Which of the following is disease of rice?
- (a) Brown spot Ratti disease
 - (b) Foot rot
 - (c) Rice blast
 - (d) All the above

10. Little leaf of brinjal is caused by?
- (a) Mycoplasma (b) Bacteria
(c) Virus (d) Fungus

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) Outline the classification of fungi as given by Alexopoulos and Mims.

Or

- (b) Bring out the ultra-structure of fungal cell with a neat labeled diagram.

12. (a) Give an account on heterothallism in fungi.

Or

- (b) Discuss in brief about the application of mycorrhizae in agriculture.

13. (a) Explain the classification of lichens by Miller.

Or

- (b) Describe the internal structure for heteromeric Lichens.

14. (a) Give a concise account of physical and chemical disease control methods.

Or

- (b) Define plant diseases. Describe some of the common causes of plant diseases.

15. (a) Explain the symptoms and control of black rust of wheat.

Or

- (b) Write briefly about the disease cycle of *Xanthomonas citri*.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)
Each answer should not exceed 600 words.

16. (a) Enumerate the general characters of fungi with reference to their habit and nutrition.

Or

- (b) Give a detailed account on the salient features of Basidiomycotina.

17. (a) Explain parasexuality in fungi.

Or

- (b) Discuss the economic importance of fungi.

18. (a) Discuss the economic importance of lichens.

Or

(b) Given an illustrative account on the general features of lichens.

19. (a) Explain significance of growth regulators in plant diseases.

Or

(b) Write a short note on the chemical defense mechanism of plant against plant pathogens.

20. (a) Discuss about the plant diseases white rust of crucifers and late blight of potato.

Or

(b) Enlist the casual organism of leaf spot of ground nut. Write a brief note on its disease cycle.
