

B.Sc. BOTANY
THIRD SEMESTER (REPEAT)
MYCOLOGY AND PLANT PATHOLOGY
BSB-302

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

(Objective)

Marks: 20

Choose the correct answer from the following:

1×20=20

- Coenocytic fungi are:
 - With septa
 - One septa
 - Two septa
 - Without septa
- Bacterial blight of Rice disease of plant is caused by:
 - Pseudomonas* sp.
 - Xanthomonas citri*
 - Xanthomonas oryzae*
 - None of the above
- The fusion of nuclei in fungi is known as:
 - Progamy
 - Microgamy
 - Karyogamy
 - None of these
- Red rot of sugarcane is caused by:
 - Rhizopus* sp.
 - Colletotrichum falcatum*
 - Albugo* sp.
 - Cercospora* sp.
- Which of the following is not related to Necrosis?
 - Curling of leaves
 - Death of tissues
 - Discoloration of leaves
 - Wilting of leaves
- The roots like structures present in fungus to anchor with the substratum is known as:
 - Stolons
 - Rhizoids
 - Thallus
 - All of these
- Which property of the fungi separates them from plants?
 - Have chlorophyll
 - Have hypha
 - Lack of chlorophyll
 - None of these
- Which of the following is not a symptom of bacterial diseases in plants?
 - Wilts
 - Blight
 - Rots
 - Mosaic
- The late blight disease of potato is most serious when the:
 - Temperature is high
 - Temperature is low
 - Soil pH is neutral
 - All of the above
- Father of Indian pathology is:
 - R. S. Singh
 - E.J. Butler
 - S. P. Laxman
 - K.C. Mehata

11. The branches of conidiophores of *Penicillium* end in conidia bearing structures called as:
 - a. Paraphyses
 - b. Sterigmata
 - c. Metulae
 - d. None of the above
12. Thread like filaments which form the body of fungi are known as:
 - a. Rhizoids
 - b. Hyphae
 - c. Paraphyses
 - d. Mycellium
13. The cell wall of yeast is composed of:
 - a. Cellulose
 - b. Pectose
 - c. Chitin and mannan
 - d. Pectin
14. The number of ascospores formed in *Saccharomyces cerevisiae* is:
 - a. 8
 - b. 2
 - c. 4
 - d. 16
15. Early blight of potato is caused by:
 - a. *Aspergillus* sp
 - b. *Clavaria* sp
 - c. *Penicillium* sp
 - d. *Alternaria* sp
16. The fusion of nuclei in fungi is:
 - a. Karyogamy
 - b. Progamamy
 - c. Microgamamy
 - d. All of the above
17. The number of basidiospores formed in *Agaricus* sp is:
 - a. 3
 - b. 4
 - c. 2
 - d. 6
18. The symptom of red rot of sugarcane mostly found in:
 - a. Leaf
 - b. Root
 - c. Stem
 - d. All of these
19. *Aspergillus* reproduces via:
 - a. Spores
 - b. Conidia
 - c. Budding
 - d. Fragmentation
20. Which of the following is a helical virus?
 - a. TMV
 - b. T2 phage
 - c. Herpes virus
 - d. Pox virus

(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

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| 1. Describe briefly the nutrition and growth of fungi. | 10 |
| 2. Describe briefly the economic importance of fungi. | 10 |
| 3. Describe the general characteristics, reproductive structures of <i>Agaricus</i> with suitable diagram. | 10 |
| 4. Write in brief the spore dispersal mechanisms in fungi. | 10 |
| 5. Write a brief note on the symptoms of fungal and bacterial diseases in plants. | 10 |
| 6. Write short notes on:
a) Blast disease of rice
b) TMV | 5+5=10 |
| 7. Write in brief the life cycle of <i>Saccharomyces cerevisiae</i> with suitable diagram. Write the economic importance of <i>Saccharomyces</i> . | 2+8=10 |
| 8. Write the symptoms and management on late blight disease of potato and red rot of sugarcane. | 5+5=10 |

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