

4/BOT-251(Th) Syllabus-2023

2 0 2 5

(May-June)

FYUP : 4th Semester Examination

BOTANY

(Microbiology)

(BOT-251)

(Theory)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1** which is compulsory and **four**
from the rest, selecting **one** from each Section

1. Write short notes on the following : 4×4=16

- (a) Mycoplasma
- (b) Antibiotics and their sources
- (c) Role of viruses in vaccine production
- (d) Food spoilage and food poisoning

(2)

SECTION—I

2. With the help of suitable diagram, describe the ultrastructure of a bacterial cell. 10
3. Give an account of lytic and lysogenic cycles of virus replication. 5+5=10

SECTION—II

4. With the help of suitable identifying characters and examples, describe Baltimore classification of viruses. 10
5. Describe the structures of bacteriophage T_4 and TMV with suitable diagrams. 5+5=10

SECTION—III

6. Classify microbes on the basis of nutritional types giving examples in each case. 10
7. What is decomposition? Give a brief account on the role of microbes in decomposition of organic matter. 2+8=10

(3)

SECTION—IV

8. Explain the principles and applications of bright field microscopy. 5+5=10
9. Write short notes on the following : 5+5=10
- (a) Cyanobacteria
- (b) Batch culture
