

(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2022 ONLY)

22UBY5E1

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI  
END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2024  
COURSE NAME: B.Sc.-BOTANY  
SEMESTER: V  
MAXIMUM MARKS: 50  
TIME : 3 HOURS

PART - III

MICROBIOLOGY AND PLANT PATHOLOGY

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS

(K1)

MULTIPLE CHOICE QUESTIONS.

1. What is the primary mode of reproduction in bacteria?  
a) Budding      b) Binary fission      c) Fragmentation      d) Spores
2. The viral genome is enveloped in a protein coat known as \_\_\_\_\_.  
a) envelop      b) capsomere      c) capsid      d) nucleus coat
3. Which type of white blood cell is primarily responsible for the adaptive immune response?  
a) B and T cells      b) Basophils      c) Eosinophils      d) Neutrophils
4. What is a primary source of microbial contamination in foods?  
a) Packaging materials      b) Soil and water  
c) Processing equipment      d) Refrigeration units
5. Find the causal organism for citrus canker disease \_\_\_\_\_.  
a) *Alternaria alternata*      b) *Alternaria solani*  
c) *Cercospora personata*      d) *Xanthomonas citri*

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

(K2)

6. Saprophyte.
7. Virion.
8. Antigen.
9. Expand: MPN.
10. Write the symptoms of TMV.

SECTION – B

(5 X 3 = 15 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Interpret the growth phases of bacteria.

(OR)

- b) How to separate microbes by pour plate technique?

- 12.a) Describe the replication of rabies virus.

(OR)

- b) Illustrate the structure of HIV.

(CONTD.....2)

- 13.a) Relate the factors of the disease triangle.  
(OR)  
b) Explain the role of vaccines in preventing disease.
- 14.a) Discuss the best technique to preserve milk .  
(OR)  
b) Assess the cause and sources of botulism.
- 15.a) Comment on the Koch's postulate.  
(OR)  
b) Find the causal organism and control measure of tikka disease.

**SECTION – C****(5 X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.**

16. a) Examine the ultrastructure of bacterial cell. K5  
(OR)  
b) Evaluate the types of specialized medium for microbial culture. K5
- 17.a) Discuss the characteristic features of Virus. K5  
(OR)  
b) Outline the lytic cycle of T4 phage. K4
18. a) Criticize the defense barriers of innate immunity. K5  
(OR)  
b) Analyse the activity of penicillin against microbes. K4
- 19.a) Summarize the key steps in the production of cheese . K5  
(OR)  
b) Investigate the microbes present in contaminated water. K4
- 20.a) Classify the plant diseases. K5  
(OR)  
b) Point out the causes, symptoms, control measures of red rot disease in sugar cane. K4

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