

(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2021 ONLY)

21UBY5E1

REG.NO:

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI  
END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2023  
COURSE NAME: B.Sc.-BOTANY  
SEMESTER: V  
MAXIMUM MARKS: 70  
TIME : 3 HOURS

**PART - III**  
**MICROBIOLOGY AND PLANT PATHOLOGY**

**SECTION - A (10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

1. The extra chromosomal DNA in bacteria is known as \_\_\_\_\_.  
a) cosmid                      b) plasmid                      c) nucleosome                      d) chromosome
2. The capsid is made of \_\_\_\_\_.  
a) carbohydrate                      b) lipid                      c) protein                      d) glycolipid
3. Strptomycin is produced by \_\_\_\_\_.  
a) *Streptomyces griseus*                      b) *Streptomyces fradiae*  
c) *Streptomyces venezulae*                      d) *Strptomycetes somaliensis*
4. Pasteurization should be done at \_\_\_\_\_.  
a) 70° C for 15 sec                      b) 72° C for 15 sec                      c) 75° C for 15 sec                      d) 74° C for 15 sec
5. *Xanthomonas citri* is ----- shaped bacterium.  
a) round                      b) comma                      c) rod                      d) spiral

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.**

**(K2)**

6. Which component causing solidification in medium.
7. What is the causal organism of rabbies.
8. Define: chemotherapy.
9. Define: botulism.
10. Name the causal organism of paddy blast disease.

**SECTION – B**

**(5 X 4 = 20 MARKS)**

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

11. a) Enlist the modes of nutrition in bacteria.  
**(OR)**  
b) Relate the growth curve of bacteria.
- 12.a) Illustrate the ultra structure of T4 phage.  
**(OR)**  
b) Point out the characteristic features of viruses.

(CONTD.....2)

13.a) Recall the general features of antibody

(OR)

b) Why microbes are best suited for the production of alcohol

14.a) Comment on the organisms causing food spoilage.

(OR)

b) Describe the acidification and microbes involved in cheese production

15.a) Brief about the disease triangle.

(OR)

b) Mention the Koch's postulates.

**SECTION - C**

**(4 X 10 = 40 MARKS)**

**ANSWER ANY FOUR OUT OF SIX QUESTIONS.**

**(16<sup>th</sup> QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS  
(FROM Qn. No: 17 to 21) (K4 (Or) K5)**

16. Explain the ultra structure of bacteria.

17. Discuss about the different types of culture media.

18. Outline the reproduction of HIV virus.

19. Examine the role of Penicillin in controlling microorganism.

20. Evaluate the production of citric acid.

21. Interpret the cause, symptoms, disease cycle and control measures of Tikka disease.

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