

(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2023 ONLY)

23PBY103

REG.NO. :

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI**

**END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2023**

**COURSE NAME: M.Sc.- BOTANY**

**MAXIMUM MARKS: 75**

**SEMESTER: I**

**TIME : 3 HOURS**

**APPLIED MICROBIOLOGY & PLANT PATHOLOGY**

**SECTION – A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**K1**

**MULTIPLE CHOICE QUESTIONS.**

1. Bacteria was first discovered by \_\_\_\_\_.  
a) Pasteur            b) Koch            c) T.J.Burill            d) Anton von Leeuwenhock.
2. Chemical which acts as counter stain in Gram staining technique \_\_\_\_\_.  
a) crystal violet    b) Iodine            c) safranin            d) sodium carbonate.
3. Father of canning is \_\_\_\_\_.  
a) Nicholas Appert    b) Steward            c) Louis Pasteur    d) Koch.
4. Penicillin is discovered by \_\_\_\_\_.  
a) Alexander Fleming    b) Pasteur            c) Koch            d) Jenner.
5. Causative organism of Blast disease is \_\_\_\_\_.  
a) Xanthomonas            b) Colletotrichum            c) Pyricularia oryzae            d) phytophthora.

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

**K2**

6. What is Amphitrichous?
7. What is pure culture?
8. Define food spoilage?
9. Define fermentor?
10. Explain TMV?

**SECTION – B**

**(5 X 5 = 25 MARKS)**

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

11. a) Describe the general characters of Bacteria.  
**(OR)**  
b) Describe the Economic importance of Microbes.
- 12.a) Write about Differential medium.  
**(OR)**  
b) Describe the simple staining.

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13.a) Describe the Botulism.

(OR)

b) Write about the food spoilage.

14.a) Describe the glutamic acid production.

(OR)

b) Explain the production of Lysine.

15.a) Describe the causal agent, symptoms & control methods of paddy Blast.

(OR)

b) Describe the causal agent, symptoms & control methods of Bunchy top of Banana?

**SECTION – C**

**(5 X 8 = 40 MARKS)**

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

16. a) Describe the contribution of Louis Pasteur & Robert Koch to microbiology.

(OR)

b) Write about the reproduction of bacteria.

17.a) Write an essay on pure culture techniques.

(OR)

b) Explain the Nutritional types of bacteria.

18. a) Explain the production of Spirulina single cell protein.

(OR)

b) Write about the Food preservation methods.

19.a) Write in detail about Ethanol production.

(OR)

b) Write about the Fermentors.

20.a) Explain the Defense mechanism in plants.

(OR)

b) Write about the pathogen, symptoms & control measures of Late blight of potato.

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