

**M.Sc. BOTANY
THIRD SEMESTER
PLANT PATHOLOGY AND MICROBIOLOGY
MSB-301**

**SET
B**

[USE OMR FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 min.

(Objective)

Marks: 20

1X20=20

Choose the correct answer from the following:

1. Which of the following method is not a type of inoculation?
 - a. Tissue plating method
 - b. Refrigeration method
 - c. Pour plate method
 - d. Dilution plate method
2. Which of the following enzyme is not responsible for wood degradation by wood-rotting fungi?
 - a. Laccase
 - b. Amylase
 - c. Hemicellulase
 - d. Cellulase
3. Photosynthetic bacteria which obtain hydrogen from organic source are called
 - a. Purple non-sulphur bacteria
 - b. Photoorganotrophs
 - c. Photoheterotrophs
 - d. All of the above
4. Which of the following immunity is present from our birth?
 - a. Innate immunity
 - b. Active immunity
 - c. Passive immunity
 - d. Acquired Immunity
5. Which of the following cells is involved in cell-mediated immunity?
 - a. T-cells
 - b. B-cells
 - c. Mast cells
 - d. Both T-cells and B-cells
6. IgM is a
 - a. Monomer
 - b. Pentamer
 - c. Dimer
 - d. Polymer
7. B-cells and T-cells are two types of cells involved in
 - a. Innate immunity
 - b. Active immunity
 - c. Passive immunity
 - d. Acquired immunity
8. PGPRs promote plant growth by
 - a. Enhancing nutrient uptake
 - b. Promoting soil fertility
 - c. Enhancing tolerance to biotic and abiotic stress
 - d. All of the above
9. Which of the following systems protects our body against disease causing microorganisms?
 - a. Immune system
 - b. Digestive system

- c. Excretory system
 - d. Respiratory system
10. The culture method employed for culturing obligate intracellular parasites is
 - a. Streak plate method
 - b. Slant culture method
 - c. Co-culture method
 - d. All of the above
 11. Blast of rice is caused by
 - a. *Plasmodiophora brassicae*
 - b. *Pyricularia oryzae*
 - c. *Penicillium sp.*
 - d. All of these
 12. The pathogen which spread internally throughout the host shows
 - a. Localized invasion
 - b. Systematic Invasion
 - c. Resistance
 - d. No effect
 13. Gray leaf spot of Coconut is caused by
 - a. *Pestalotiopsis palmarum*
 - b. *Alternaria sp*
 - c. *Rhizopus sp*
 - d. None of these
 14. Rhizome rot disease of ginger is caused by?
 - a. *Pseudomonas sp.*
 - b. *Xanthomonas citri*
 - c. *Pythium aphanderdatum*
 - d. *Rhizopus sp.*
 15. Loose smut of wheat caused by
 - a. *Ustilago kollerii*
 - b. *Ustilago hordei*
 - c. *Ustilago tritici*
 - d. *Ustilago huda*
 16. The father of Indian Plant pathology is
 - a. E.J.Butler
 - b. A.Flor
 - c. V.keen
 - d. B.B. Mundkar
 17. Leaf spot disease of Chilli is caused by
 - a. *Fusarium sp.*
 - b. *Leveillula sp.*
 - c. *Cercospora capsici*
 - d. *Aspergillus sp.*
 18. Powdery mildew disease of rubber caused by
 - a. *Fusarium sp.*
 - b. *Corticium sp.*
 - c. *Oidiumheveae*
 - d. *Trichoderma sp.*
 19. Which of the given diseases is caused by nematodes in plants?
 - a. Wilts
 - b. Cavity spot
 - c. Scab
 - d. Root-not
 20. *Rhizopustolonifer* belongs to which class?
 - a. Acrasiomycetes
 - b. Zygomycetes
 - c. Ascomycetes
 - d. Deuteromycetes

(Descriptive)

Time : 2 hrs. 40 min.

Marks : 50

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

1. Write short notes on: 5x2=10
 - a. Role of rhizospheric microorganisms in plant
 - b. Role of microorganisms in bioremediation
2. Discuss briefly the Chemical and biological means of disease control? 10
3. Write short notes on: 10
 - a. Citrus canker
 - b. Nut fall disease of Arecanut
4. Write short notes on: 5x2=10
 - a. Bacterial blight of rice
 - b. Red rot of Sugarcane
5. Write a brief note on plant disease management? 10
6. What is pure culture? Write in brief the different types of culture media and preservation of pure cultures. 1+5+4=10
7. Write in brief the physical and chemical organization of antibodies. 5+5=10
8. What is cell-mediated immune system? Write in brief the mechanism involved in this system. 2+8=10

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