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Reg.No :

Name :

MAHATMA GANDHI UNIVERSITY, KOTTAYAM
MGU-UGP (HONOURS) REGULAR EXAMINATION MARCH 2025
SECOND SEMESTER
Discipline Specific Core Course (DSC) - MG2DSCMBG100 - PERSPECTIVES
OF MICROBIOLOGY
(2024 ADMISSION ONWARDS)

Duration: 2 Hours

Maximum Marks: 50

Remember(K), Understand(U), Apply(A), Analyse(An), Evaluate(E), Create(C), Skill(S), Interest(I)
and Appreciation(Ap)

Students should attempt at least one question from each course outcome to enhance their overall outcome attainability.

Part A

Short Answer Type Questions

Answer any **10** questions

Each question carries **2** marks

1. Which type of bacteria lacks a cell wall? [K] / [CO1]
2. Explain types of hyphae. [U] / [CO1]
3. Name the method for estimating the size and shape of viruses. [K] / [CO1]
4. What is a helical virus? [K] / [CO1]
5. Define culture media [K] / [CO2]
6. Define alkaliphiles with example. [K] / [CO2]
7. Define heterotrophic bacteria. [K] / [CO2]
8. Define Basal media with suitable example. [K] / [CO2]
9. Name two anaerobic culture media. [K] / [CO2]
10. What type of sample is best suited for direct microscopic method? [K] / [CO3]
11. Illustrate the mode of reproduction in Nocardia. [U] / [CO3]

12. List the characteristics of Stationary phase. [K] / [CO3]

[2x10 = 20]

Part B

Short Essay Questions

Answer any **4** questions

Each question carries **5** marks

13. Discuss the role of water in microbial growth. [U] / [CO2]

14. Explain the nutritional classification of bacteria and explain each with examples. [U] / [CO2]

15. Compare and contrast the pour plate, spread plate and membrane filtration methods for bacterial enumeration. [U] / [CO3]

16. What is CFU? How do you calculate CFU in SPC? [K] / [CO3]

17. Explain with diagrams the different types of flagellar arrangement in bacteria. [U] / [CO1]

18. Explain budding in yeast. [U] / [CO1]

[5x4 = 20]

Part C

Long Essay Question

Answer any **1** questions

Each question carries **10** marks

19. Explain the principle and working of turbidimetric method for bacterial enumeration. [U] / [CO3]

20. Explain the classification of microorganisms based on oxygen requirement with suitable examples. [U] / [CO2]

[10x1 = 10]