First Semester FYUGP Microbiology Examination
NOVEMBER 2024 (2024 Admission onwards)
KU1MDCMBG101 (ESSENCE OF MICROBIOLOGY)
(DATE OF EXAM: 29-11-2024)

Time : 90 min   Maximum Marks : 50

Part A (Answer any 6 questions. Each carries 2 marks)

1. What role do protozoa play in the food web? 2

2. Which grains are commonly used for making fermented foods like idli and dosa in South India? 2

3. How do mycorrhizal fungi contribute to plant nutrition? 2

4. What are biofertilizers? 2

5. What is the mechanism by which bacteria develop resistance to antibiotics? 2

6. What are the benefits of consuming nutraceuticals derived from microorganisms? 2

7. What is asymptomatic infection? 2

8. What is biofuel? 2

Part B (Answer any 4 questions. Each carries 6 marks)

9. Discuss the role of microorganisms in public health. How do they contribute to disease prevention and control through sanitation, vaccination, and antibiotic development? 6

10. Describe the role of yeast in the bread-making process. Explain how it contributes to both leavening and flavor development. 6

11. If you were managing a landfill, how would you use microorganisms to enhance biogas production from solid waste? 6

12. Compare and contrast the nutritional profiles of different types of edible mushrooms 6

13. Assess the impact of pandemics caused by viral diseases on global healthcare systems and economies. 6

14. Describe the role of methanogens in biogas production. 6

Part C (Answer any 1 question(s). Each carries 14 marks)

15. (a) Explain the role of microorganisms in soil health and fertility. How do they contribute to nutrient cycling and organic matter decomposition? 7

    (b) Describe the role of microorganisms in public health, focusing on their involvement in disease prevention and control. How are microbes used in vaccines and diagnostic tests? 7

16. (a) Assess the Role of microorganisms in the brewing industry 7

    (b) Propose the causes, etiology and diagnosis of food-borne pathogens and diseases. 7