

**Third Semester FYUGP Degree (Reg) Examination November
2025**

**KU3VACMBG201 - MICROBES IN SOLID WASTE
MANAGEMENT**

2024 Admission onwards

Time : 1.5 hours

Maximum Marks : 35

Section A

Answer any 6 questions. Each carry 2 marks.

1. Give an example for anaerobic organism involved in composting.
2. Give two examples of fungi used in mycoremediation and state their specific pollutants degraded
3. Mention two characteristics of hazardous waste?
4. What is Bio augmentation
5. State the purpose of hazardous waste management.
6. How do microbes reduce the volume of solid waste?
7. What is meant by methanogenesis?
8. Which type of waste is used in composting?

Section B

Answer any 4 questions. Each carry 4 marks.

9. Describe the types of incineration method.
10. Discuss the mechanisms of microbial consortia (syntrophy, cross-feeding, division of labour) and their importance in pollutant degradation.
11. Evaluate the benefits of using microbial consortia instead of single strains for biodegradation.
12. compare and contrast bioventing and bioaugmentation
13. briefly explain different kinds of semicontinuous type biogas plant
14. Explain how recycling and reusing help reduce the amount of waste generated.

Section C

Answer any 1 questions. Each carry 7 marks.

15. Define solid waste.a)different types of solid waste .b)sources and generation of solid waste
16. Discuss the design and operational requirements of a sanitary landfill, highlighting its advantages over open dumping.