

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 6555 L

Unique Paper Code : 2534001201
Name of the Paper : Microbes in Environmental Management
Name of the Course : **B.Sc. (Hons.) Microbiology**
Semester : II
Duration : 2 Hours Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions in all.
3. **All** questions carry equal marks.

1. Differentiate between any **three** of the following :
(4×3=12)
 - (a) Ammonification and Nitrification
 - (b) Free-living and symbiotic nitrogen fixers
 - (c) Biostimulation and Bioaugmentation
 - (d) Activated sludge process and Septic tank
2. (a) Define bioleaching and explain the process for recovery of gold. (6)

P.T.O.

6555

2

- (b) Explain the steps of primary sewage treatment. (6)
3. Briefly explain the following : (6×2=12)
 - (a) Oxidation Pond
 - (b) Bioremediation of petroleum oil contamination in soil
4. (a) Explain the role of microorganisms in e-waste management. (6)
(b) Discuss the microbial degradation of 2,4-D. (6)
5. (a) What are biofuels? Discuss the advantages of using biofuels over fossil fuels. (5)
(b) What is the composition of biogas? Give examples of microorganisms involved. (4)
(c) Why are COD values always higher than BOD? (3)
6. (a) Explain how solid wastes are disposed off by composting? (6)
(b) Discuss the degradation of cellulose, giving examples of microorganisms. (6)

(300)

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 6555 L

Unique Paper Code : 2534001201
Name of the Paper : Microbes in Environmental Management
Name of the Course : **B.Sc. (Hons.) Microbiology**
Semester : II
Duration : 2 Hours Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions in all.
3. **All** questions carry equal marks.

1. Differentiate between any **three** of the following :
(4×3=12)
 - (a) Ammonification and Nitrification
 - (b) Free-living and symbiotic nitrogen fixers
 - (c) Biostimulation and Bioaugmentation
 - (d) Activated sludge process and Septic tank
2. (a) Define bioleaching and explain the process for recovery of gold. (6)

P.T.O.

6555

2

- (b) Explain the steps of primary sewage treatment. (6)
3. Briefly explain the following : (6×2=12)
 - (a) Oxidation Pond
 - (b) Bioremediation of petroleum oil contamination in soil
4. (a) Explain the role of microorganisms in e-waste management. (6)
(b) Discuss the microbial degradation of 2,4-D. (6)
5. (a) What are biofuels? Discuss the advantages of using biofuels over fossil fuels. (5)
(b) What is the composition of biogas? Give examples of microorganisms involved. (4)
(c) Why are COD values always higher than BOD? (3)
6. (a) Explain how solid wastes are disposed off by composting? (6)
(b) Discuss the degradation of cellulose, giving examples of microorganisms. (6)

(300)