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Question Paper Code: UD102

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2024

Professional Elective

Biotechnology

21BTV102- ENVIRONMENTAL BIOTECHNOLOGY

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART A - (10 x 2 = 20 Marks)

1. List some of the potential suggestion to control air pollution CO1- U
2. How do you manage your household sewage wastes? CO1- U
3. Define Municipal waste and list few impacts of municipal waste. CO1- U
4. What are the steps involved in secondary waste water treatment. CO1- U
5. What are major industrial pollutants? CO1- U
6. Define activated sludge process. CO1- U
7. What all are the advantages and disadvantages of biocatalysts. CO1- U
8. Define Biotransformation and mention its usage. CO1- U
9. Advantages of bio hydrogen compared with conventional method of production of hydrogen. CO2- App
10. Define bio composting. CO1- U

PART – B (5 x 16= 80 Marks)

11. (a) Discuss the techniques involved in treatment of sewage water. CO1- U (16)
Or
(b) Explain the methodology for removal of specific pollution from heavy metal? CO1- U (16)

12. (a) Your friend has owned one textile industry, but not aware about biological waste water treatment. He asked to yourself about biological waste water treatment. How will you transfer your understanding to your friend about biological treatment? CO2- App (16)
- Or
- (b) Interpret your learnings to treat the major pollutants in present in industrial waste water? CO2- App (16)
13. (a) Incorporate any one case study related to Impacts of nuclear and radioactive waste CO2- App (16)
- Or
- (b) TDS determines the nature of waste water. How TDS plays a major role in waste water present in textile waste water CO2- App (16)
14. (a) Explain the important role of enzymes which played a major role in case of waste water management. CO1- U (16)
- Or
- (b) Explain the waste water treatment by biocatalyst in tanning industry? CO1- U (16)
15. (a) Explain in detail about Organic farming and discuss its advantages and disadvantages. CO1- U (16)
- Or
- (b) Why energy management in essential and explain a possible impacts ready to face by doing improper energy management? CO1- U (16)