Enrollment No._____

Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot

Affiliated to Saurashtra University, Rajkot

SEMESTER END EXAMINATION APRIL -2019

B.Sc. Biotechnology

16UBTCC26 – ENVIRONMENTAL BIOTECHNOLOGY

Duration of Exam – 3 hrs ***Semester – VI*** ***Max. Marks – 70***

Part A ***(10X1= 10 marks)***

Answer **ALL** questions

1. Write any two reasons for the loss of Biodiversity.
2. Name any two Green House gases.
3. True / False: Dioxygenase enzymes are involved in biodegradation of Aromatic hydrocarbons.
4. Define: Bioleaching
5. Write any two chemical properties of waste water.
6. BOD of waste water can be reduced by _____waste water treatment.
7. What is Sanitary landfilling?
8. What are the end products of Anaerobic Sludge digestion?
9. Give any two examples of N_2 fixing Biofertilizers.
10. True / False: Bioplastics are derived from Polyhydroxyalkonates (PHAs).

Part B ***(5x5= 25 marks)***

Answer **ALL** questions

11a. Enlist characteristics of Population. Explain any three in brief.

OR

11b. Write a note on: Global environmental issues.

12a. Explain the concept and types of Bioremediation.

OR

12b. Define Biodegradation. Explain briefly on factors affecting biodegradation.

13a. Write a brief note on primary treatment of waste water.

OR

13b. Describe tertiary treatment of waste water in brief.

14a. Define Composting. Explain briefly the process of composting for solid waste management.

OR

14b. Write a brief note on: Land filling

15a. Describe Microbial pesticides in brief with appropriate examples.

OR

15b. Define Biocontrol. Explain briefly on types of Biocontrol agents.

***Part C** (5x7= 35 marks)*

Answer **ALL** questions

16a. Give a detailed account of Biodiversity Conservation.

OR

16b. Elaborate on "Interaction among populations" with suitable examples.

17a. Describe Biodegradation of Hydrocarbons in detail.

OR

17b. What is Biomagnification? Explain biomagnification of DDT in detail.

18a. Describe in detail: Physical and Biological properties of waste water.

OR

18b. Write a detailed note on secondary waste water treatment.

19a. Give a detailed account on classification of solid waste.

OR

19b. Describe Anaerobic sludge digestion and its application in detail.

20a. Define Biofertilizers. Explain types and preparation of Biofertilizer in detail.

OR

20b. What are Bioplastics? Describe properties, synthesis and applications of Bioplastic in detail.