12. What is ectomycorrhizae and endomycorrhizae ? Discuss plant fungal interactions in detail.

13. What is Bioethanol ? Explain in detail the process of conversion of sugar into ethanol.

B.Sc. (Bio-Tech.)- III Year

NS-3477

B.Sc. (Bio-Technology) Examination, June-2023

ENVIRONMENTAL BIOTECHNOLOGY

(B-305)

B.Sc. (Biotech.)

Time : Three Hours] *[Maximum Marks : 75*

Note : This paper is divided into three **Sections-A, B** and **C. Section-A** contains **Very Short Answer Questions, Section-B** contains **Short Answer Questions** and **Section-C** contains **Descriptive Answer Questions.** Attempt **all** the Sections as per instructions.

Section–A

(Very Short Answer Questions)

Note : All questions are compulsory. Each question carries equal marks. 5×3=15

1. Advantages of Renewable fuels on environment.

2. Bioconversion of waste for methane production.

3. Write down the applications of Biofertilizers.

4. Discuss the process of biodegradation of cellulose.

5. Role of Genetically engineered microbes in environment.

Section–B

(Short Answer Questions)

Note : Attempt any **three** questions. Each question carries 10 marks. 3×10=30

6. What are/is microbial degradation ? Describe in brief various methods of municipal wastes management through microorganisms.

7. What are chemical pesticides ? Describe in brief the microbial degradation of chemical pesticides.

8. What do you understand by Biomineralization ? Discuss bioleaching of minerals in general.

9. Write short notes on the following :

   (i) Bioaccumulation

   (ii) Assessment of transgenic bacteria

10. Define phytoremediation. Explain various process involved in phytoremediation with suitable examples.

Section–C

(Detailed Answer Questions)

Note : Answer any **two** questions. Each question carries 15 marks. 2×15=30

11. Discuss the role of biotechnology in environmental management with suitable examples.