(Pages : 2) **M – 7042**

Reg. No. : .....

Name : .....

Third Semester M.Sc. Degree Examination, March 2022

Environmental Sciences

ES 232 — ENVIRONMENTAL GENETICS MICROBIOLOGY AND BIOTECHNOLOGY

(2018 Admission Onwards)

Time : 3 Hours Max. Marks : 75

I. Answer **any ten** of the following.

1. What is the difference between cotton and Bt cotton?
2. What is the difference between emerging and reemerging diseases?
3. What are recalcitrant compounds?
4. What is genetically modified food?
5. What is the role of microbes in nutrient cycling?
6. How are microorganisms helpful to plants?
7. What is mosaicism? How does it occur?
8. What is the use of VAM?
9. Vermicomposting.
10. Polyploidy.
11. Spontaneous mutation.
12. Euploidy.

(10 × 2 = 20 Marks)

P.T.O.

II. Answer any **five** of the following.

13. What are the causes of chromosomal aberrations?

14. Write short note on metagenomics.

15. What is community genetics? Explain its importance.

16. What is GEAC? Explain its functions.

17. Describe the metabolism of microbial degradation by pesticides.

18. Write a brief account on human genome project.

19. What is biofertilizer? Explain its applications.

(5 × 5 = 25 Marks)

III. Answer any **three** of the following.

20. Write an essay on the role of microbes in human lives.

21. What is biomining? Explain its process and advantages.

22. What are genetically modified crops? Describe its advantages and disadvantages.

23. What is Bioremediation? Explain different types of bioremediation.

(3 × 10 = 30 Marks)
