



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**M.Sc.DEGREE EXAMINATION –ZOOLOGY**

**FOURTH SEMESTER – APRIL 2019**

**17PZO4MC02– BIOTECHNOLOGY**

Date: 08-04-2019  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

**PART-A**

**Answer ALL Questions**

**(10x2=20)**

1. Write a short note on ligase.
2. Define Gene probe.
3. Give the potential of microbes.
4. Differentiate Southern Blotting from Western Blotting.
5. Draw the diagram of PBR322 and explain its role in Genetic Engineering.
6. Comment on Gene Transfer Technologies.
7. Give the potential of microbes.
8. Write a short note on transgenic animal.
9. Write down the significance of biopolymers.
10. Genetically modified organism: A boon or a bane? Justify.

**PART-B**

**Answer Any FOUR Questions**

**(4x10=40)**

11. Explain the principles of Genetic Engineering.
12. Write down the various types of restriction enzymes.
13. Discuss the agrobacterium mediated gene transfer.
14. Elaborate the In vitro fertilization (IVF) technology.
15. Why Biosafety is important? Elucidate its need in research.
16. Illustrate the role of IPR in Biotechnology.

**PART-C**

**Answer Any TWO Questions**

**(2x20=40)**

17. Describe the role of biotechnology in Environment and Agriculture.
18. Write an essay on Human Genome Project.
19. Provide a detailed note PCR and its mechanism (Diagram is necessary).
20. Elaborate the steps involved in Genetic Engineering.

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