



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY

FIFTH SEMESTER – APRIL 2017

AZ 5520 / AZ 5514 - GENETIC ENGINEERING

Date: 28-04-2017
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART – A

Answer ALL questions, each in a few words:

(10x2=20 Marks)

1. What is protein folding?
2. Define Amplification.
3. What are Adaptors and linkers?
4. Comment on terminal transferase.
5. What are probes?
6. Mention direct cloning methods
7. What is immunological screening?
8. What are Cosmids?
9. What is insertional activation?
10. Give the function of polymerases.

PART – B

Answer any FOUR questions, each in about two pages:

(4x10=40 Marks)

11. Describe the DNA helix model.
12. Explain cDNA cloning.
13. Distinguish between exonucleases and endonucleases.
14. Elaborate screening of recombinants.
15. Write notes on genetically modified crops.
16. Explain the following: a) M13 Bacteriophage b) Restriction mapping.

PART – C

Answer any TWO questions, each in about four pages:

(2x20=40 Marks)

17. Give a detailed account of Genome organization in Prokaryotes.
18. Discuss the role of any two vectors in Genetic engineering.
19. Highlight Southern and Western blotting techniques.
20. Describe the Socioethical problems of Genetic engineering.
