

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY

FIFTH SEMESTER – NOVEMBER 2017

AZ 5520 – GENETIC ENGINEERING

Date: 13-11-2017
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

PART A

ANSWER ALL questions, each in a few words:

(10X2=20MARKS)

1. What is Amplification?
2. Give the function of nuclease.
3. Comment on Polymerases.
4. Mention the alternative DNA delivering systems.
5. What are marker genes?
6. What is meant by transformation?
7. What is immunological screening?
8. Explain restriction mapping.
9. What is bioremediation?
10. What is transgenic plant?

PART B

ANSWER ANY FOUR questions, each in about two pages:

(4X10=40 MARKS)

11. Highlight structure of eukaryotic genome.
12. Mention the differences between DNA replication and transcription.
13. Write notes on Adaptors and linkers.
14. Explain c DNA and its application.
15. Describe Southern Blotting technique.
16. Give the methodology for screening clone banks.

PART C

ANSWER ANY TWO questions, each in about 4 pages:

(2X 20 = 40 MARKS)

17. Give a detailed account of Gene structure in Prokaryotes.
18. Write an essay on Plasmids, Cosmids and Bacteriophage vectors.
19. Elaborate the role of enzymes in Genetic engineering.
20. Discuss the use of Biotechnology in healthcare and environment.
