

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY

FIFTH SEMESTER – APRIL 2018

AZ 5520– GENETIC ENGINEERING

Date: 07-05-2018

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

PART-A.

Answer all questions:

(10 x2= 20)

01. Define gene expression.
02. What is vector in genetic engineering?
03. What are cosmids? How they are superior to plasmids.
04. what is gene cloning?
05. Define restriction enzyme. Give an example..
06. Mention the use of chromogenic substances in genetic engineering.
07. what is palindrome in DNA? Give an example..
08. What are transposons?
09. Define culture media.
10. What is GMO?

PART- B.

Answer any FOUR questions:

(4 x 10= 40)

11. Give an account on chemical composition and organization of DNA molecule.
12. Explain the global scenario of biotechnology.
13. Explain any two methods of gene transfer.
14. Describe bacteriophages and their uses in genetic engineering.
15. Explain briefly the principle and applications of PCR.
16. Give an account on socioethical problems of genetic engineering.

PART -C.

Answer any TWO questions:

(2 x20= 40)

17. Describe the various steps involved in rDNA technology.
18. Give a detailed account on enzymes used as tools in genetic engineering.
19. Explain the role of biotechnology in agriculture and health care.
20. Describe in detail Human Genome Project.
