

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2010 – 11)

SUBJECT CODE: ZL/MC/GG54

B.Sc. DEGREE EXAMINATION NOVEMBER 2012
BRANCH VI A – ADVANCED ZOOLOGY & BIOTECHNOLOGY
FIFTH SEMESTER

COURSE : MAJOR CORE
PAPER : GENETIC ENGINEERING
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS

(10 x 3 = 30)

1. Comment on Ligase.
2. Expand the following: a) PCR b) ELISA c) IVF
3. Write a note on Significance of Bioinformatics.
4. Comment on GMO.
5. What is a Hybridoma?
6. List any 3 benefits of study of Genetic Engineering.
7. Mention the names of any three restriction Enzymes.
8. What is IPR?
9. Outline the applications of Western blot.
10. What are the following: a) Cell line b) Callus c) Gene Bank

SECTION – B

ANSWER ANY FIVE QUESTIONS

(5 x 6 = 30)

11. Comment on culture media and its importance.
12. What are restriction endonucleases and reverse transcriptases.
13. Comment on the various methods of DNA transfer into cells.
14. What is site directed mutagenesis.
15. Comment on the applications of gene therapy.
16. Briefly explain the applications of genetically engineered microbes.
17. Comment on Human genome project and its importance to mankind.

SECTION – C

ANSWER ANY TWO QUESTIONS

(2 x 20 = 40)

18. Write an essay on different types of vectors used in genetic engineering.
19. Explain in detail about cloning in prokaryotes.
20. Explain the terms proteomics and genomics.
21. Describe the processes involved in the technique of tissue culture.
