

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2005-06 & thereafter)
SUBJECT CODE: ZL/MC/GE54

B.Sc. DEGREE EXAMINATION NOVEMBER 2008
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)**

Write short notes on:

1. Give an account on Vaccines.
2. Explain rDNA technology.
3. Describe the Steps involved in PCR technique.
4. What is cDNA library?
5. Expand a) ELISA b) IVF c) SCP.
6. What is Gene therapy?
7. Comment on Immobilization.
8. Write a note on Transgenic animals.
9. Give an account on Plasmids.
10. What is DNA finger printing?

SECTION – B

ANSWER ANY FIVE QUESTIONS **(5 x 6 = 30)**

11. Explain Site-directed mutagenesis.
12. Describe IVF technology in humans.
13. Give an account on Southern blotting technique.

14. Explain the importance of immobilized enzymes in enzyme engineering.
15. What are the benefits and hazards of genetic engineering?
16. Explain cloning with *Agrobacterium* plasmids.
17. What are primary and secondary cell lines? Write a note on their merits and demerits?

SECTION – C

ANSWER ANY TWO QUESTIONS

(2 x 20 = 40)

18. What are the methods of transferring foreign DNA into cells?
19. Give an account on monoclonal antibodies.
20. Describe the various methods of enzyme production. Give a brief account on their applications.
21. Explain the role of genetically engineered microorganisms.
