

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2011 – 12)

SUBJECT CODE: 11ZL/MC/FB54

B.Sc. DEGREE EXAMINATION NOVEMBER 2013
BRANCH VI A – ADVANCED ZOOLOGY & BIOTECHNOLOGY
FIFTH SEMESTER

COURSE : MAJOR CORE
PAPER : FUNDAMENTALS OF BIOTECHNOLOGY
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION – A

ANSWER ALL QUESTIONS **(10 x 3 = 30)**

1. Define plasmids.
2. Expand the following: a) SCP b) GMO c) ELISA.
3. Comment on proteomics.
4. What is Southern blotting?
5. Define DNA sequencing.
6. What is synchronous culture?
7. Write a note on humulin.
8. Comment on the types of stem cells.
9. List the methods of enzyme immobilization.
10. Comment on applications of GEM.

SECTION – B

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

11. Comment on restriction endonucleases.
12. Briefly outline the principle and applications of PCR.
13. Write about the use of *Agrobacterium* in eukaryotic cloning.
14. Comment on culture media and its importance.
15. Write a note on applications of transgenic plants.
16. Highlight the applications of enzymes in biotechnology.
17. Write a brief note on SCP.

SECTION – C

ANSWER ANY TWO QUESTIONS **(2 x 20 = 40)**

18. Discuss the types and uses of cloning vectors.
19. Describe the different methods of transfer of foreign DNA into cells.
20. Give a detailed account of production of Monoclonal antibodies and their applications.
21. Write an essay on benefits and hazards of Genetic engineering.
