

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2015 – 2016 & thereafter)

SUBJECT CODE: 15ZL/MC/FB54

B.Sc. DEGREE EXAMINATION - NOVEMBER 2019
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. Comment on plasmid.
2. Write a note on gene cloning.
3. Define electroporation.
4. Write a note on mutagenesis.
5. Expand : ELISA and McAb.
6. What is an attenuated vaccine?
7. Comment on stem cell.
8. Write a note on bioethics.
9. Mention the importance of structural biology.
10. What is called a designer drug?

SECTION – B

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

11. Briefly discuss the areas of biotechnology.
12. Write an account on electrophoresis.
13. Bring out an account on site-directed mutagenesis.
14. Enumerate points on the benefits and hazards of Genetic Engineering.
15. Briefly analyse the applications and ethical issues of stem cell culture.
16. Write an account on bioinformatics database types.
17. Bring out an account on genetically modified organisms.

SECTION – C

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

18. Give an account on the use of vectors in Genetic Engineering.
19. Discuss in detail the methods of transfer of foreign DNA into cells.
20. Bring out a detailed account on the applications of biotechnology in diagnosis and treatment.
21. Write an essay on animal cell and tissue culture techniques.
