STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI –600 086
(For candidates admitted during the academic year 2015-16 & thereafter)

SUBJECT CODE: 15BY/PC/AP24

M. Sc. DEGREE EXAMINATION, APRIL 2018
BIOTECHNOLOGY
SECOND SEMESTER

COURSE : CORE
PAPER : ANIMAL AND PLANT BIOTECHNOLOGY
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION – A

ANSWER ALL THE QUESTIONS **(20 x 1 = 20)**

1. What are Cadherins?
2. Write the functions of Fibronectin?
3. What is Cell Senescence?
4. Write the composition of Balanced salt solution
5. What is IVF?
6. Define transfection
7. What is transgenesis?
8. What do you mean by Gene knock out?
9. What is callus?
10. Write the composition of MS medium
11. What is Karyoplast?
12. Write the use of Colchicine
13. What are BT crops?
14. Write the significance of GUS gene
15. What is the use of Bioblaster?
16. How are weeds destroyed by Glyphosphate?
17. What is QTL?
18. Write the significance of Golden rice
19. What is the edible vaccine?
20. Define Molecular farming

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SECTION – B

ANSWER ANY FOUR QUESTIONS IN ABOUT 600 WORDS (4x 10 = 40)

21. Discuss about the properties of finite and continuous cell lines
22. Explain about the methods adopted to assess cytotoxicity.
23. State the reasons that lead to infertility in humans.
24. Explain how cattle and sheep are manipulated for lactoferrin and wool production.
25. Explain about the isolation of protoplast by enzymatic method.
26. Enlist the role of npt II, cat and lux scoreable gene in the production of transgenic plants.
27. List out the applications of tissue culture in agriculture and horticulture.

SECTION – C

ANSWER ANY TWO QUESTIONS IN ABOUT 1500 WORDS (2x 20 = 40)

28. Discuss about the techniques used for primary culture of isolated tissues.
29. Discuss how transgenic animals serve as models in understanding human diseases.
30. Explain in detail about the production of haploid plants using anther culture and pollen grains.
31. Discuss about the strategies adopted through genetic engineering to develop insect resistance crops. List out the impacts of BT crops on environment.

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