

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

SUBJECT CODE: 11BY/PC/AP24

M. Sc. DEGREE EXAMINATION, APRIL 2012
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)

Define / Explain the following:

1. Laminar Air Flow
2. Feeder layers
3. Totipotent cells
4. Serum free media
5. IVF
6. Electrophoration
7. PEG mediated microinjection
8. Gene knockout
9. Sodium hypochlorite
10. Somatic embryogenesis
11. Synthetic seeds
12. Secondary metabolites
13. Selectable Markers
14. Any 2 features of a selectable transformation vector
15. Crown Gall Disease
16. Explants used for plant transformation
17. Nitrilase gene
18. Stress tolerance genes
19. Plant bioreactors
20. Golden rice

SECTION – B

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

21. What are the different methods by which primary culture can be disaggregated?
22. Write about embryo transfer
23. Account on Human genetic disease with reference to any one
24. State the applications of tissue culture in Agriculture and Horticulture.
25. Explain in brief about agrobacterium mediated gene transfer.
26. Account on BT crops and its impact on environment.

SECTION – C

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

27. Explain in brief about the applications of animal tissue culture in biomedical research and also state its disadvantages.
28. Account on transgenic animals.
29. Discuss in brief about Somaclonal variation and Germplasm Conservation.
30. Explain about chloroplast genome transformation by any two methods.
