

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI –600 086**  
(For candidates admitted during the academic year 2008-09 & thereafter)

**SUBJECT CODE: BY/PC/PB25**

**M. Sc. DEGREE EXAMINATION, APRIL 2009**  
**BIOTECHNOLOGY**  
**SECOND SEMESTER**

**COURSE : MAJOR CORE**  
**PAPER : PLANT BIOTECHNOLOGY**  
**TIME : 3 HOURS**

**MAX. MARKS: 100**

**SECTION – A**

**ANSWER ANY ALL QUESTIONS**

**(20 x 1 = 20)**

1. Plant Growth Regulators.
2. Macerozyme.
3. Somatic chimeras.
4. Mericulture.
5. Acetosyringone.
6. Disarmed plasmid.
7. Ri Plasmid
8. Microinjection.
9. EPSP synthase.
10. Cry Proteins
11. Food safety
12. Reporter gene
13. Cybrids.
14. Binary vector
15. Chemical gene transfer methods.
16. Golden Rice.
17. Flavr Savr tomato.
18. Veggie Vaccines.
19. Oleosin – hirudin fusion protein.
20. Storage Proteins.

**SECTION – B**

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

21. Write the production procedure for sig A in plants.
22. Mention the names of genes and its roles related to bacterial resistance in plants.
23. Bring out the molecular mechanisms for the development of Bt crops.
24. Describe various physical means of gene transfer methods.
25. Explain the fungal resistance mechanisms seen in a transgenic plant.
26. How haploids produced. Mention their significance in agriculture.

**SECTION – C**

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

27. Elucidate the molecular mechanism of plant transformation mediated by *Agrobacterium* sp.
28. Give the detailed procedure for somatic hybridization.
29. Explain about genetically engineered plants as protein factories.
30. Discuss the pros and cons on Bt crops in Indian agriculture.

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