

BOT - 135

GOVERNMENT COLLEGE (AUTONOMOUS), RAJAHMUNDRY

III year B.Sc., Program Examinations at VI Semester End

Paper VIII-(A1): Plant tissue culture and its Biotechnological applications

Model Question Paper

Time: 3 Hrs.

Max.Marks : 60

Section –A

5 x 2 = 10 M

Answer All the following questions. Diagrams are not needed

1. Totipotency
2. Protoplast
3. DNA ligase
4. Ri plasmid
5. Cry proteins

Section – B

4 x 5 = 20 M

Answer any Four of the following questions. Draw diagrams wherever necessary.

6. Somatic embryogenesis
7. Principles of plant tissue culture
8. Embryo rescue
9. Cryopreservation
10. Cloning Vectors
11. cDNA libraries
12. Agrobacterium
13. Virus resistance

Section – C

3 x 10 = 30 M

Answer any Three of the following questions. Draw neat and labeled diagrams wherever necessary.

14. Write an essay on composition and preparation of MS medium.
15. Write an essay on Embryo culture and add a note on its significance.
16. What are restriction endonucleases? Describe the different types of restriction Endonucleases with suitable examples.
17. Write an essay on direct methods of gene transfer.
- 18 . Discuss about the production of transgenic plant for nutritional quality.

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GOVERNMENT COLLEGE (AUTONOMOUS), RAJAHMUNDRY
IIIB.SC –BOTANY/VI SEMESTER (w.e.f-2018-2019)

**Elective Practical Model Paper VIII-(A1): Plant tissue culture and its
biotechnological applications**

Total hours of teaching 30hrs 2hrs per

week

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| 1. Project report (A) | 15 marks |
| Viva-voce on study project | 05 marks |
| 2. Identify and write notes on B, C and D (3x4) | 12 marks |
| B- Tool/instrument/container used in sterilization | |
| C- Tool/instrument/container used in gene transfer | |
| D- GM crops (Photographs) | |
| 3. Construct restriction map of circular and/ or linear DNA from the data provided | 08 marks |
| 4. Field report | 05 marks |
| 5. Record | 05 marks |

50 marks