

**COURSE CODE - 6030801**

**M.PHIL DEGREE EXAMINATION - JAN 2009**

**M.PHIL (BIO TECHNOLOGY)**

**BIO-TECHNOLOGY IN AGRICULTURE**

**(For Candidate admitted from calendar 2007 on wards)**

**Time: 3 Hours**

**Max. Marks: 100**

**Section - A**

**Answer ALL the Questions:**

**10 X 3 = 30**

1. Define genome?
2. What is replication?
3. Define gene expression?
4. What are transgenic plants?
5. What is micro propagation?
6. Define somoclonal variation?
7. Define gene?
8. What is PCR?
9. What is stem cell?
10. What are the uses of Agro bacterium?

**Section - B**

**Answer any FIVE Questions:**

**5 X 6 = 30**

11. Explain the RAPD markers?
12. Write short note on Bioreactors?
13. Write the experiments DNA as genetic materials?
14. Write note on western blotting?
15. What are vaccines? Write the types of vaccines?
16. Write short note on PCR reaction?
17. Write note on gene mapping?
18. Write note on protoplast fusion?

**Section - C**

**Answer any TWO Questions:**

**2 X 20 = 40**

19. Write briefly about the uses of Biotechnology air scientific field?
20. Write in detail about Gene transfer technology?
21. Explain in detail about the production of vaccines?