

R09

Code No: D0308

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech. II Semester Examinations April 2011

**ADVANCED ANIMAL CELL SCIENCE AND TECHNOLOGY
(BIOTECHNOLOGY)**

Time: 3 hours

Max. Marks.60

**Answer any Five Questions
All questions carry equal marks**

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1. Explain in detail the various factors that influence the growth of cells in a media. [12]
2. Explain the following in reference to immortalization
 - a) Oncogene
 - b) Telomerase [12]
3. Discuss the origin, characteristic and maintenance of cell lines. [12]
4. Give an account on a choice of techniques used for authentication of cell lines. [12]
5. Write short notes on
 - a) Somatic cell genetics.
 - b) RNA silencing. [12]
6. Illustrate how somatic cell fusion is achieved and write about their use in therapeutic cloning. [12]
7. Explain how to elucidate the mechanism(s) involved in the phenotypic effects caused by a mutant allele. [12]
8. How do induce gene knockout in a mouse carrying targeted mutation. Explain the process with a suitable example. [12]
