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]

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