

R09

Code No: D0305

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech II - Semester Examinations, March/April 2011
ADVANCED IMMUNOLOGY AND IMMUNOTECHNOLOGY
(BIOTECHNOLOGY)**

Time: 3hours

Max. Marks: 60

**Answer any five questions
All questions carry equal marks**

- - -

1. What is cell mediated immunity? How does it defend the body against invading pathogens and foreign cells? [12]
2. Write short notes on the following:
a) Opsonization.
b) Complement activation.
c) Cell mediated cytotoxicity. [4 + 4 +4]
3. Describe the T-Cell receptor and its function. Trace the pathway of cell mediated immune response from the event of antigen recognition. [6 + 6]
4. Describe the mechanism of cell memory for both T and B cells of the immune system. [12]
5. What is meant by T cell cloning? Explain briefly the methods adopted for creating the clone. [12]
6. Explain, what is Cyto-immunotherapy, and under what circumstances such therapy advised? [12]
7. Write briefly on:
a) Aluminum Salt (Alum) adjuvant.
b) Oil-in-Water Emulsions. [6 + 6]
8. List out at least three types of effective, common adjuvants in use giving their properties, mechanism of action and limitations. [12]
