## Code No: D0305

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD M.TECH II - SEMESTER EXAMINATIONS, APRIL/MAY 2012 ADVANCED IMMUNOLOGY AND IMMUNOTECHNOLOGY (BIOTECHNOLOGY)

Time: 3hours Max. Marks: 60

## Answer any five questions All questions carry equal marks

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- 1. What are lymphokines? Explain the role of cytokines and lymphokines in T cell activation.
- 2. Discuss about plant adjuvants in detail along with an example.
- 3. Describe briefly the various pathways of antigen presentation.
- 4.a) What is immunotherapy? Explain its importance in HIV infection.
  - b) What is the role of chemokines in T cell activation?
- 5. Give an account of
  - a) General properties of cytokines.
  - b) Cytokine related diseases.
  - c) Polyclonal antibodies.
- 6. Give a detailed account of adjuvants and their role in vaccines and memory.
- 7. Discuss on the following
  - a) Specific and non specific immunotherapy.
  - b) T lymphocytes.
- 8. Discuss about the cooperation and regulation between T and B cells.

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