**Reg. No. \_\_\_\_\_\_\_\_**

**Karunya University**

**(Karunya Institute of Technology and Sciences)**

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

**Supplementary Examination - June 2011**

**Subject Title: IMMUNOLOGY AND IMMUNOTECHNOLOGY Time: 3 hours**

**Subject Code: BT240 Maximum Marks: 100**

#### **Answer ALL questions**

**PART – A (10 x 1 = 10 MARKS)**

1. Define immunological memory.

2. What are stem cells?

3. Define agglutination.

4. Define cluster of differentiation.

5. What are effectors functions of Antibodies?

6. What is autoimmunity?

7. Define HLA typing.

8. What is RIA?

9. What are the different types of vaccines?

10. What are tumor antigens?

**PART – B (5 x 3 = 15 MARKS)**

11. Differentiate Macrophage from Monocyte.

12. Differentiate between Immunogenicity and Antigenecity.

13. What is the role of T cells in apoptosis?

14. What are the immune response to tumor antigens?

15. Briefly explain the principle behind ELISA.

**PART – C (5 x 15 = 75 MARKS)**

16. Explain the biological role of T cells and B cells.

(OR)

17. Compare the activation of innate and acquired immunity.

18. Explain the different types of Ig. Add notes for their structure and functions.

(OR)

19. Explain the complement system.

20. Write an account on B cell maturation and differentiation.

(OR)

21. Explain the T cell subtypes and their function.

22. Narrate the role of MHC in organ transplantation.

(OR)

23. Explain the organ specific autoimmuno diseases.

24. Give an account on Hybridoma technology.

(OR)

25. Explain the following

a. Fluorescent Ab techniques b. Immunocytochemistry.