

**KARNATAKA STATE OPEN UNIVERSITY**  
**II Semester, M.Sc. Examination Feb-2015**  
**BIOTECHNOLOGY**  
**BT 2.3 : IMMUNO-TECHNOLOGY**

**Time: 3 Hours**

**Max. Marks: 80**

*Instruction: Answer all the sections.*

**Section A**

Answer any **FOUR** questions from the following

**4 × 5 = 20**

1. Blood group antigens.
2. Anaphylaxis.
3. Tumor markers.
4. Interferons.
5. Subunit vaccines.
6. Hashimoto's disease

**Section B**

Answer any **THREE** questions from the following

**3 × 10 = 30**

7. Types and structure of immunoglobulins.
8. Role of MHC molecules in T cell activation
9. HLA and tissue transplantation.
10. Antibody diversity.
11. Xeno-transplantation and Immuno-suppression theory.

**Section C**

Answer any **TWO** questions from the following

**2 × 15 = 30**

12. Explain different types of immunodeficiency disorders.
13. Discuss about the different types of complement activation pathways
14. Describe the cell mediated hypersensitivity reactions.
15. Write a note on structure and functions of organs involved in immune system.

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