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Total number of printed pages – 2

B. Tech  
CPBT 8304

**Fifth Semester (Special) Examination – 2013**

**IMMUNOLOGY**

**BRANCH : BIOTECH**

**QUESTION CODE : D 272**

**Full Marks – 70**

**Time : 3 Hours**

*Answer Question No. 1 which is compulsory and any **five** from the rest.  
The figures in the right-hand margin indicate marks.*

1. Answer the following questions : 2×10
- (a) What is MHC polymorphism ?
- (b) What is Epitope ? How it differs from Agretopes ?
- (c) Name the immunoglobulin that capable of crossing the placenta and give passive immunity to fetus.
- (d) What is class switching ?
- (e) Differentiate between attenuated and killed vaccine.
- (f) What is ELISA ?
- (g) Name two immunodeficiency diseases of human.
- (h) What do you understand by the terms Idiotypic variability and Isotypic variability ?
- (i) What is Opsonization ?
- (j) What do you mean by hypo function of immune system ?
2. Write short notes on : 5×2
- (a) Immunoproliferative diseases
- (b) Phagocytosis.



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3. Differentiate between : 5×2
- (a) MHC class I and . MHC class II
  - (b) B cell and T cell.
4. How is the lymphoid organs classified ? Give an account the structure and function of Secondary lymphoid organ. 10
5. (a) Explain the laboratory method for the production of monoclonal antibody molecule. 5
- (b) Explain the alternate pathway of complement activation. 5
6. (a) Briefly explain the series of reaction that occur in type–I and type-II hypersensitivity reaction. 5
- (b) Describe the basic molecular structure of antibody molecule. 5
7. Briefly Explain : 5×2
- (a) Immunological Tolerance
  - (b) Granulocytes.
8. Write short notes on any two of the following : 5×2
- (a) Antibody diversity
  - (b) Characteristics of a good antigen
  - (c) Passive and active immunity
  - (d) Inflammatory response.

