

(Following Paper ID and Roll No. to be filled in your
Answer Books)

Paper ID : 154414

Roll No.

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B.TECH.

Theory Examination (Semester-IV) 2015-16

IMMUNOLOGY

Time : 3 Hours

Max. Marks : 100

Section-A

**Q1. Attempt all parts. All parts carry equal marks. Write
answer of each part in short. (2×10=20)**

- (a) Define immunogenicity and Antigenicity.
- (b) Differentiate between Cytotoxic T-cells and Helper T-cells.
- (c) Elaborate the principle of Cross Reactivity.
- (d) Differentiate between Hepten and Adjuvant.
- (e) What is central immune tolerance?

- (f) Write the full form of MHC, ADCC, PRR, TCR and BCR.
- (g) What do you mean by immunity?
- (h) What are CDRs?
- (i) Explain the term Autograft, allograft and Xenograft with suitable examples.
- (j) What are the four cardinal signs of Inflammation?

Section-B

Q2. Attempt any five parts. All parts carry equal marks:
(5×10=50)

- (a) What are Toxoids? How are used in vaccination and also explain DNA vaccines.
- (b) Write down the factors responsible for autoimmunity. Autoimmunity leads to the formation of immune complexes in the joints leading to Rheumatoid arthritis? Explain.
- (c) Explain the principle of Hybridoma Technology. What are the advantages and disadvantages of Mab.

(2)

- (d) Compare between humoral and cell mediated immunity? Give one example each of passive natural and active artificial immunity?
- (e) Explain different factor of innate immunity. 'What is Tonsil?
- (f) Compare between classical pathway and alternate pathway of complement activation.
- (g) What are the Thymus dependent and thymus independent antigen? Explain with suitable example.
- (h) Explain with diagram the process of thymic education.

Section-C

Note : Attempt any two questions from this section.

(2×15=30)

Q3. Write down the short notes on the following-

- (a) Principle and application of ELISA
- (b) Respiratory Burst
- (c) Delayed type hyper sensitivity

(3)

- Q4. Explain the Exogenous and Endogenous pathway of antigen processing.
- Q5. What are the primary and secondary immunodeficiency diseases? How HIV defeats our immune system? Explain In detail.