

(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?

(1)

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(f) 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)

(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.

(4)

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