THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LP 966] NOVEMBER 2019 **Sub. Code: 2966**

M.PHARM. DEGREE EXAMINATION
(PCI New regulations 2016)
SEMESTER-II
BRANCH-IV – PHARMACEUTICAL BIOTECHNOLOGY – MPB
PAPER II – IMMUNOTECHNOLOGY

Q.P. Code : 262966

Time : Three hours **Maximum : 75 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss the types of immunity in an individual and their function. Add a note on Immunoglobulins.

2. Discuss in detail the importance and types of Antigen-Antibody reactions with examples.

II. Write notes on: **(7 x 5 = 35)**

1. Types and treatment of hypersensitivity reactions.
2. MHC complex and antigen presenting cells.
3. Principle involved in blotting techniques.
4. Phagocytosis.
5. Applications of stem cell technology.
6. Synthetic peptides and immunodiagnostics.
7. Applications of monoclonal antibodies.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[MPHARM 0921] SEPTEMBER 2021 Sub. Code: 2966
(OCTOBER 2020 EXAM SESSION)

M.PHARMACY DEGREE EXAMINATION
SEMESTER-II (PCI New regulations 2016)
PHARMACEUTICAL BIOTECHNOLOGY - MPB
PAPER II – IMMUNOTECHNOLOGY
Q.P. Code : 262966

Time : Three hours **Answer ALL Questions** **Maximum : 75 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss about Humoral immunity and Cell mediated immunity.
2. Write in detail about the principle and application of ELISA and RIA method.

II. Write notes on: **(7 x 5 = 35)**

1. Write the importance of monoclonal antibody over the polyclonal antibody.
2. Write a note on Chemiluminescence assay.
3. Define vaccine and explain the production and purification of anyone viral vaccine.
4. Short note on synthetic peptides.
5. Explain the type of immune response.
6. Function of MHC complex.
7. Define immune system and explain the cell and organ which involved in the immune system.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[M.PHARM 0922] **SEPTEMBER 2022** **Sub. Code: 2966**
(APRIL 2022 EXAM SESSION)

M.PHARMACY DEGREE EXAMINATION
SEMESTER - II (PCI New regulations 2016)
PHARMACEUTICAL BIOTECHNOLOGY - MPB
PAPER II – IMMUNOTECHNOLOGY

Q.P. Code : 262966

Time : Three hours **Answer ALL Questions** **Maximum : 75 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Explain in detail about hypersensitivity reactions and autoimmune diseases.

2. a) Define immunity and explain different types of immunity.
   b) Write a detailed note on Western blotting technique principle, procedure and its applications.

II. Write notes on: **(7 × 5= 35)**

1. Hybridoma technique and its applications.
2. Write a note on immuno electrophoresis and Radioimmunoassay (RIA).
3. Function of Major Histocompatibility Complex.
4. Write note on vaccines. Explain the production method for any one-vaccine.
5. Discuss about different types of Immunoglobulins.
6. Write a note on Immunodiagnostics.
7. List out and explain various types of antigen and antibody reactions.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[M.PHARM 0823] **AUGUST 2023** **Sub. Code: 2966**
(APRIL 2023 EXAM SESSION)

M.PHARMACY DEGREE EXAMINATION
SEMESTER - II (PCI New regulations 2016)
PHARMACEUTICAL BIOTECHNOLOGY - MPB
PAPER II – IMMUNOTECHNOLOGY

Q.P. Code: 262966

Time : Three hours **Answer ALL Questions** **Maximum : 75 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Explain the types of vaccines. Describe the methods for any two-vaccine production in detail.

2. a) Describe the production and purification of monoclonal antibodies.
   b) Explain the process of B cell maturation, activation and differentiation.

II. Write notes on: **(7 × 5= 35)**

1. Stem cell technology and its applications to Immunology.
2. Immuno diagnosis.
3. Cell mediated immunity.
4. Write note on immunofluorescence and chemiluminescence assay.
5. Types of complement activation and their biological functions.
6. Explain phagocytosis with its mechanism.
7. Write a note on autoimmune disorders.

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