## PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

## MSc DEGREE EXAMINATION MAY 2025

(Third Semester)

## Branch - ENVIRONMENTAL SCIENCE

## **CLINICAL IMMUNOLOGY**

Time: Three Hours Maximum: 75 Marks

Answer ALL questions

ALL questions carry EQUAL marks  $(5 \times 15 = 75)$ 

- 1 a Explain the factors that influence immunogenicity.
  - b Write a note on (i) adjuvants (ii) epitopes
  - c Outline the basic structure of antibodies.
  - d Elaborate on the different classes of antibodies.
- 2 a Organize the membrane receptors of B Cells.
  - b Illustrate on the subpopulations of T Cells.

OR

- c Examine the classical pathway for complement activation.
- d Make use of different types of hypersensitivity.
- 3 a Explain the methodologies of precipitation reactions.
  - b Infer on the direct and indirect immunofluorescence staining of membrane antigens.

OR

- c Organize the principle and applications of ELISA.
- d Interpret the methodology and applications of immunoelectrophoresis.
- 4 a Explain the causes and abnormalities associated with rheumatoid arthritis.
  - b Outline the structure of HIV.

OR

- c Infer on the diagnosis and routine screening to rule out Sexually Transmitted Diseases.
- d Discuss the immunologic abnormalities associated with HIV infection.
- 5 a Write a note on (i) AFP (ii) CEA
  - b Summarize the principle and application of western blotting.

OR

- c Explain the production of monoclonal antibodies.
- d Interpret the uses and normal values for prostate specific antigen test.

Z-Z-Z END

