**PSG COLLEGE OF ARTS & SCIENCE**
(AUTONOMOUS)

**BSc DEGREE EXAMINATION DECEMBER 2022**
(Fourth Semester)

Branch – **BIOCHEMISTRY**

**BASICS OF IMMUNOLOGY**

Time: Three Hours Maximum: 75 Marks

**SECTION-A (10 Marks)**
Answer **ALL** questions
**ALL** questions carry **EQUAL** marks (10 x 1 = 10)

1.Identify the Physical factor of Innate immunity
(i) Properdin (ii) NK cells (iii) Skin (iv)Temperature

2. Which of the following is reserve site for Haemopoiesis?
(i) Lymph Node (ii) Red Pulp (iii) PALS (iv)Tonsils

3.What is the major function of Neutrophils?
(i) Allergic reactions (ii) Increase in temperature
(iii) Processing of antigens (iv) Phagocytosis

4.Match the Cytotoxic cells with the following cells.
(i) T Helper cells (ii) T Suppressor cells
(iii) T Killer cells (iv) T Delayed Hypersensitivity cells

5.Find out the Hotspot region of Immunoglobulins
(i)VL region (ii) CL region
(iii) VH region (iv) HV region

6.Mention the type of reaction involved in Rocket immunodiffusion.
(i) Precipitation reaction (ii) Agglutination reaction
(iii) Flocculation reaction (iv) Cytolysis

7.Who coined the term Complement?
(i) Bordet (ii) Alexin (iii) Ehrlich (iv) Koch

8.Name the technique used to detect Hepatitis B antigen in biological sample
(i) RIA (ii) ELISA
(iii) Immunoelectrophoresis (iv) FISH

9.Choose the older name of Syngraft.
(i) Autograft (ii) Isograft (iii) Homograft (iv) Heterograft

10.Find the type of autoantibodies formed in Rheumatoid Arthritis
(i) IgG (ii) Ig M (iii) LATS (iv) ANF

**SECTION - B (35 Marks)**
Answer **ALL** Questions
**ALL** Questions Carry **EQUAL** Marks (5 x 7 = 35)

11.a)Explain briefly on Immune tolerance.

OR

b) Summarize the essential features of Antigens.

12.a) Describe Phagocytosis and Inflammation.

OR

b) Outline the morphology and functions of B Lymphocytes.

13. a) Analyze the subtypes and biological functions of Ig G and Ig A.

OR

b) Narrate the mechanism and applications of Precipitation reaction.

**Cont...**

14. a) Sketch out the Clonal Selection theory.

OR

b) Describe the principle and applications of Immunoelectrophoresis.

15.a) Show the types and mechanism of Graft rejection.

OR

b) Compare the active and passive immunization against infections.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions
**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

16. Compare the structure and functions of Primary and Secondary Lymphoid organs.

17. Analyze Cytokines and their mode of action.

18. Discuss the mechanism of action of Type-IV Delayed hypersensitivity reactions with examples.

19. Summarize the principle and applications of ELISA.

20. Elucidate the immunological abnormalities behind AIDS.

Z-Z-Z END