22BCU413/18BCV13/18BCU13

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Fourth Semester)

Branch – **BIOCHEMISTRY**

BASICS OF IMMUNOLOGY

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1. Choose the Primary Lymphoid organ from the following.
   (i) Lymph nodes (ii) Thymus
   (iii) Spleen (iv) Tonsils

2. Name the cells which act as Antibody factory .
   (i) NK cells (ii) Killer cells
   (iii) Plasma cells (iv) T cells

3. Identify the Delayed hypersensitivity condition.
   (i) Erythroblastosis Foetalis (ii) Asthma
   (iii) Serum sickness (iv) Measles

4. Which of the following activates Complements?
   (i) Phosphatase enzyme (ii) Catalase enzyme
   (iii) Protease enzyme (iv) Hydrolase enzyme

5. Find the type of graft between two genetically identical individuals of same species.
   (i) Autograft (ii) Syngraft
   (iii) Allograft (iv) Xenograft

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a Classify briefly the Innate and Acquired immunity.
OR
b Explain the factors affecting immunogenicity.

7 a Describe the process of Phagocytosis.
OR
b Outline the types and significance of T-cells.

8 a Show the general structure of Immunoglobulin.
OR
b State the applications of Precipitation reaction.

9 a Narrate the steps in hybridoma technology for monoclonal antibody production.
OR
b Explain the steps involved in Rocket Immuno electrophoresis.

10 a Describe the structure and functions of HLA.
OR
b Prepare the Immunization Schedule for Children.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11 a Differentiate the primary and secondary lymphoid organs in brief.

OR

b Describe the mechanism of tolerance induction and factors causing Immuno tolerance .

12 a Distinguish the structure and functions of White blood cells.

OR

b Analyze the types and mode of action of Cytokines.

13 a Discuss the biological functions of Ig G and Ig M.

OR

b Give an account of Cell mediated Delayed hypersensitivity.

14 a Elucidate the salient features and role of Complement components.

OR

b Discuss the principle, procedure and applications of ELISA.

15 a Describe the mechanism of Allograft rejection.

OR

b Distinguish the causes,symptoms,diagnosis and treatment of Rheumatoid arthritis and Myasthenia gravis.

Z-Z-Z END