

6. Write short notes any **three**.

3×5=15

- (i) Clonal Selection Theory
- (ii) Hybridoma Technology
- (iii) Types of Vaccines
- (iv) Autoimmunity
- (v) SCID

[This question paper contains 4 printed pages]

Your Roll No. :

Sl. No. of Q. Paper : **2926**

Unique Paper Code : 2232583601

Name of the Paper : DSC-06 Immunology
and Immunobiotechnology

Name of the Course : **B.Sc. (P) Applied Life
Science Agrochemical
& pest Management,
Theory (NEP-UGCF)**

Semester : VI

Time : 2 Hours **Maximum Marks : 60**

Instructions for Candidates :

- (a) Write your Roll No. on the top immediately on receipt of this question paper.
- (b) Attempt any **FOUR** questions in all. Question **NO.1** is compulsory.
- (c) Draw well-labelled diagrams wherever necessary.

1. (a) Define the following (any **four**). $4 \times 1 = 4$
 - (i) Immunotoxin
 - (ii) Adjuvant
 - (iii) Agglutination
 - (iv) Neutralization
 - (v) Passive immunity
- (b) Distinguish between (any **three**) $3 \times 2 = 6$
 - (i) Antigenicity and Immunogenicity
 - (ii) Cytosolic and Endocytic pathway of antigen processing
 - (iii) Cell-mediated and Humoral immunity
 - (iv) Double Immunodiffusion assay and ELISA
- (c) Elaborate the abbreviations. $4 \times 1/2 = 2$
 - (i) MHC
 - (ii) APC
 - (iii) AIDS
 - (iv) CLIP
- (d) Mention the contribution of the following scientists. $3 \times 1 = 3$
 - (i) Karl Landsteiner
 - (ii) Emil Von Behring
 - (iii) Edward Jenner

2. What is innate immunity ? Describe in detail the various types of anatomical barriers ? 15
3. (a) Elaborate the structure of an immunoglobulin > Briefly describe the function of various classes of immunoglobulins. 10
- (b) Explain the principle and application of immunoelectrophoresis technique. 5
4. (a) Describe the factors influencing the immunogenicity of an antigen ? 10
- (b) Explain the process of inflammation along with its four cardinal signs. 5
5. (a) Mention in detail the various types of hypersensitivity reactions ? 10
- (b) Differentiate between linear and conformational epitopes. Justify the statement that T cells are not capable of binding to conformational epitopes. 5