

Exam. Code : 107404

Subject Code : 2145

B.Sc. (Bio-Technology) Semester—IV

IMMUNOTECHNOLOGY

Paper—BT-5

Time Allowed [1–3 Hours] [Maximum Marks—40

Note :— Section A (1×8 marks) is compulsory. Section-B (5×4 marks) : Attempt any *five* questions. The answer should not exceed *two* pages. Section-C (6×2 marks) : Attempt any *two* questions. The answer should not exceed *five* pages.

SECTION—A (Compulsory)

1. Give a brief account of the following :
 - (i) Antigen receptors on the T cells.
 - (ii) T dependent antigens.
 - (iii) Radial immunodiffusion significance.
 - (iv) Direct haemagglutination test principle.
 - (v) Viral antigens against which antibodies can be raised.
 - (vi) Intracellular parasites, which mechanism of immunity kills them.
 - (vii) Drawbacks of passive immunization.
 - (viii) Freund complete adjuvant.

SECTION—B

1. How immune response occurs to T independent antigens ?
2. What is negative and positive selection of T cells ?
3. Describe the principle and methodology of RIA.
4. Describe the methodology, principle and significance of immunoblotting.
5. How body protects against Mycobacterium sp. Bacteria ?
6. Which immune response to worms is generated in body ? Give mechanism.
7. Describe the merits and demerits of active immunization.
8. What are the properties of whole organism vaccines ?

SECTION—C

1. How antigens are recognized by T cells and response occurs to them ?
2. Write the immunoelectrophoretic techniques and their significance.
3. How the immune invasion is regulated ?
4. How vaccines are prepared from purified macromolecules and how they are better than attenuated vaccines ?