Seat No. : _____

SK-123

September-2020

B.Sc., Sem.-VI

CC-309 : Biochemistry
(Immunology)
(New Course)

Time : 2 Hours] **[Max. Marks : 50**

Instructions : (i) **All** questions in Section-I carry equal marks.
(ii) Attempt any **three** questions in Section-I.
(iii) Question-**9** in Section-II is compulsory.

SECTION – I

1. Write a note on : Cells and organs of immune system. **14**

2. (a) Discuss microbial enzymes as invasiveness factor. **7**
   (b) State differences between Exotoxin and Endotoxin. **7**

3. Define complements and discuss the classical and MBL pathway of their activation. **14**

4. (a) Explain : Structure and functions of immunoglobulin. **7**
   (b) What is a precipitin curve ? Discuss. **7**

5. What is ELISA ? List various types of ELISA and explain any two in detail. **14**

6. (a) Discuss steps involved in production of monoclonal antibodies. **7**
   (b) Explain : Compliment fixation test (CFT) **7**

7. Write a detail note on Type I hypersensitivity reaction. **14**

8. (a) Define vaccine and discuss different types of vaccine. **7**
   (b) List various types of Graft rejection and the mechanism of rejection. **7**

SECTION – II

9. Attempt any **eight** : **8**

(1) Define LD_{50}

(2) What is the chemical nature of endotoxin ?

(3) List portals of entry for microbs.

(4) Define : primary pathogen.

(5) State a function of Lysozyme.

(6) What are heptanes ? Give an example.

(7) What is avidity and affinity ?

(8) What is the role of an adjuvant ?

(9) Define : Antibody titre.

(10) State the full form of RIA.

(11) Which radioactive compound is used in RIA ?

(12) Who discovered Hybridoma technique ?

(13) Define : Hypersentivity.

(14) Give an example of Type II hypersensitive reaction.

(15) What is Transplantation ?

(16) What is a passive immunization ?

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   (b) What is a precipitin curve ? Discuss. **7**

5. Write a detail note on Type I hypersensitivity reaction. **14**

6. (a) Discuss steps involved in production of monoclonal antibodies. **7**
   (b) Explain : Compliment fixation test (CFT). **7**

7. Describe process of conjugation in detail. **14**

8. (a) Discuss generalized Transduction. **7**
   (b) Write a note on E.Coli chromosome mapping by interrupted conjugation. **7**

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(13) Define : Hypersentivity

(14) Give an example of Type II hypersensitive reaction.

(15) Define transformation.

(16) Name two commonly used markers in specialized transduction.