Reg. No.:
Name :

K19U 2202

V Semester B.Sc Degree (CBCSS- Reg./Sup./Imp.)

**Examination, November-2019** 

(2014 Admn. Onwards)

### **CORE COURSE IN BIOCHEMISTRY**

5B09 BCH: IMMUNOLOGY AND IMMUNOLOGICAL TECHNIQUES

Time: 3 Hours Max. Marks: 40

### **SECTION - A**

Answer all the questions. Each question carries one mark. (4×1=4)

- 1. Name two vaccines which contain attenuated viruses.
- 2. Which type of leukocyte is natural killer cell?
- 3. Give two examples for hapten.
- 4. Name the antibodies that fix complements.

#### **SECTION - B**

Answer any seven questions. Each question carries two marks.(7x2=14)

- **5.** Mention the primary function of Lymph node.
- 6. What are hematopoietic stem cells?
- 7. Give the structural characteristics of macrophage.
- **8.** What are epitopes?
- 9. Define avidity?
- **10.** Define antigenicity and immunogenicity.

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- 11. Mention the principle of ELISA.
- 12. Which type of reaction is in widal test? Give its importance.
- 13. Define anaphylactic hypersensitivity.
- 14. What is autoimmunity and differentiate system and organ specific immunity?

# **SECTION - C**

Answer any four questions. Each question carries three marks.(4×3=12)

- 15. Write note on any one central lymphoid organ.
- 16. Describe the major features of inflammation.
- 17. Differentiate agglutination and precipitation reactions.
- 18. Write the structure and functions of IgM.
- 19. Describe any one test to identify antigen or antibody.
- 20. Give cause and symptoms of rheumatoid arthritis.

# **SECTION - D**

Answer any two questions. Each question carries five marks.(2×5=10)

- 21. Discuss the process of phagocytosis.
- 22. Describe the maturation, activation and differentiation of B lymphocytes.
- 23. Briefly explain the classical pathway of complement system.
- 24. Describe hybridoma technology.