B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2017

Third Semester

Core Course 8 – IMMUNOLOGY

(For B.Sc. Biotechnology)

[2013 Admission onwards]

Maximum Marks : 80

Time : Three Hours

Part A (Short Answer Questions)

Answer all questions.

Each question carries 1 mark.

1. What are Kappa Chains?

2. Write about the role of T-cells.

3. What is Autograft?

4. Write two functions of Macrophage.

5. What is Rh factor?

6. What is an epitope?

7. Write about acquired immunity.

8. What are NK cells?

9. What are DNA vaccines?

10. What is an antigen?

$(10 \times 1 = 10)$

Part B (Brief Answer Questions)

Answer any eight questions.

Each question carries 2 marks.

11. Write a short note on Inflammation.

12. Give an account of Immunological memory.

13. Write about antibody diversity.

14. Write a note on distribution of immunoglobulins.

15. Give an account of application of vaccines.

16. Write a short note on thymus.

Turn over

17. Write about different types of blood group.

18. What is autoimmunity?

19. Write a note on immunohaematology.

20. What are polyclonal antibodies?

21. Explain role of adjuvants.

22. Write a note on organs of primary immune system.

<div align="right">(8 × 2 = 16)</div>

Part C (Short Essays)

Answer any **six** *questions.*

Each question carries 4 marks.

23. Write about hypersensitivity reactions.

24. Explain antigen-antibody interaction.

25. Write a note on immunology of organ transplantation.

26. Give an account of cells of immune system.

27. Explain malignancy and associated immunological response.

28. Explain secondary immune system.

29. Describe structure of MHC.

30. Write a note on blood grouping.

31. Write a note on types of Antigens.

<div align="right">(6 × 4 = 24)</div>

Part D (Long Essays)

Answer any **two** *questions.*

Each question carries 15 marks.

32. Explain different types of Immunology.

33. What are hybridomas? Explain production and application of hybridomas.

34. Give an account of Hameral and cell mediated immunity.

35. Explain different types of immunoglobulins. Illustrate structure of immunoglobulins.

<div align="right">(2 × 15 = 30)</div>