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R – 2508

Reg. No. :

Name :

Fourth Semester B.Sc. Degree Examination, July 2023
Career Related First Degree Programme under CBCSS

Botany and Biotechnology

Vocational Course

BB 1472 : IMMUNOLOGY

(2015-2018 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** the questions in a word or **one** or **two** sentences. Each question carries 1 mark.

1. What is humoral immunity?
2. Expand ELISA.
3. What are cytokines?
4. Mention the role of adjuvants in immunogenicity.
5. What is Rh incompatibility?
6. Define an Epitope.
7. What are neutrophils?

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8. What are toxoids?
9. Name the disease caused due to lack of sufficient Vit B₁₂ absorption.
10. What is thymus?

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. Each question carries **2** marks. (Answer not to exceed one paragraph)

11. What is hypersensitivity?
12. List the functions of IgE.
13. What is MHC complex?
14. Explain VDJ recombination in lymphocytes.
15. What is idiotype immunology?
16. What are exogenous antigens?
17. Comment on autoantibodies.
18. What are haptens?
19. Explain antibody class switching.
20. What are dendritic cells?
21. Explain immuno-diffusion.
22. What are attenuated vaccines?

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. Each question carries **4** marks. (Answer not to exceed 120 words)

23. Explain the Hybridoma technology and its applications.
24. List the important differences between innate and acquired immunity.
25. Explain the general structure of immunoglobulins.
26. Discuss the immunology of AIDS.
27. Differentiate between isotypes and allotypes antibodies.
28. Comment on RIA.
29. Explain hematopoiesis. What are the factors affecting hematopoiesis?
30. Discuss the role of Ig G in immunity
31. Explain immune response to infection in humans.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. Each question carries **15** marks. (Answer not to exceed three pages)

32. Discuss on various types of antigen-antibody reactions and its applications in medical field.
33. Give a detailed account on human immune system and organs concerned.
34. Explain autoimmunity. Discuss on autoimmune disorders in humans with examples.
35. Describe in detail the cell mediated immune response.

(2 × 15 = 30 Marks)