



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

FIFTH SEMESTER – APRIL 2018

PB 5406- IMMUNOLOGY AND IMMUNOTECHNOLOGY

Date: 08-05-2018
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

PART – A

(10 x 2 = 20 Marks)

Answer the following, each within 50 words.

1. What is immunology?
2. Define toxoid.
3. What is an epitope?
4. Write notes on humoral immunity.
5. List any two immunological agglutination tests.
6. Expand ELISA and RIA.
7. List out the primary lymphoid organs.
8. What are progenitor cells?
9. Write notes on polyclonal antibodies.
10. What are myeloma cells?

PART B

(5 x 7 = 35 Marks)

Answer the following, each within 500 words. Draw diagrams and flowcharts wherever necessary.

11. (a) Write short notes on the milestones in immunology.
Or
(b) Give a brief account on the different types of immunity.
12. (a) Describe the structure of the antibody.
Or
(b) List out the essential criteria of an antigen.
13. (a) Describe the procedure of Ouchterlony Double Diffusion test.
Or
(b) Give a brief account on the methodology of Western Blotting.
14. (a) Write short notes on cytokines.
Or
(b) Briefly describe the process of antigen processing and presentation.
15. (a) Elucidate the steps involved in the production and processing of antiserum.
Or
(b) List out the major applications of monoclonal antibodies.

PART C

(3 x 15 = 45 Marks)

Answer any three of the following, each within 1200 words. Draw diagrams and flowcharts wherever necessary.

16. Write in detail on the cells of the immune system.
17. Give a detailed account on the different types of antibodies.
18. Describe the methodology for complement fixation test and immunoelectrophoresis.
19. Discuss the classical pathway of the complement system in detail.
20. Write in detail on the principle, procedure and importance of hybridoma technology.
