STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2019 – 2020)

SUBJECT CODE: 19ZL/MC/IM64

B. Sc. DEGREE EXAMINATION APRIL 2022
BRANCH VI.A. ADVANCED ZOOLOGY & BIOTECHNOLOGY
SIXTH SEMESTER

COURSE : MAJOR CORE
PAPER : IMMUNOLOGY
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION – A

ANSWER ALL QUESTIONS: **(10 X 3 = 30)**

1. Distinguish between central and peripheral tolerance.
2. Give the contribution of the following Scientists:
   a. Fernand Widal b. Calmette and Guérin c. Joseph Edward Murray
3. Give the function of the following:
   a. Dendritic cells b. Mast cells c. Peyer's patch
4. List the three types of cytokine actions. Which one among the three is the most common?
5. Define the following:
   a. Hapten b. Precipitin c. Anergy
6. Expand the following.
   a. PAMP b. PALS c. RIA
7. What are the following?
   a. Rheumatoid Factors b. Cross Matching c. Antigen masking
8. Identify the sources of allergens for systemic anaphylaxis. Mention its characteristics.
9. What is the basis of Mantoux test? Mention its significance.
10. Comment on the role of Interferon α and β in the elimination of viruses.

SECTION – B

ANSWER ANY FIVE QUESTIONS: **(5 X 6 = 30)**

11. Describe the structure and functions of M cells.
12. Illustrate signal transduction through cytokine receptor. List the difficulties in using cytokines for therapeutic purposes.
13. Elaborate Systemic Auto Immune Disorder with a suitable example.
14. With a neat labeled diagram describe Cell Mediated Immunity.
15. Compare the different types of Graft Rejection.
16. Enumerate the properties of antigens.
17. Relate the following diseases with the respective type of hypersensitivity reaction by giving reasons.
    i) Glomerulonephritis ii) Myasthenia Gravis

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SECTION – C

ANSWER ANY TWO QUESTIONS: (2 X 20 = 40)

18. Compile the different types of barriers involved in Innate Immunity.
19. Describe the structure and effector functions of Antibody. Add a note on the biological activities of IgG and IgA.
20. Explain the Classical Pathway of the Complement System. Analyse how other pathways are different from this.
21. Discuss in detail the immune reactions in bacterial infections.

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