



Date:

Registration number:

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BENGALURU-27
M.Sc. MICROBIOLOGY - II SEMESTER
SEMESTER EXAMINATION: APRIL 2022
(Examination conducted in July 2022)
MB 8221-IMMUNOLOGY

Time- 2 ½ hrs

Max Marks-70

This question paper contains **2** printed pages and **4** parts

I. Answer any Five of the following.

5 x 3 =15

1. a) Name two colony stimulating factors in haematopoiesis.
b) Define clonal anergy.
c) List one mitotic inhibitor as an immunosuppressive agent in transplantation.
2. Relate how Vit A, E and Zn affect innate immunity?
3. Classify types of antigens.
4. Give three comparisons between IgE and IgM.
5. Why would you use HAT medium in the selection of hybridomas?
6. What does antagonism, synergy and redundancy mean?
7. How can you classify autoimmune diseases? Give an example for each.

II. Answer any Five of the following.

5x5=25

8. Tabulate the physical and chemical mechanisms of the skin and respiratory tract protect innate immunity.
9. Illustrate with a neat labelled diagram CALT.
10. Explain Immunofluorescence.
11. Design a Mab for therapeutic application.
12. What diseases occur if complements are deficient?
13. Why is HLA typing done and how is it performed?
14. Write a note on generalized therapy for malignancy.

III. Answer any Two of the following.

2x10=20

15. Explain bacterial evasion of host defence mechanisms.
16. Write a brief outline about haematopoiesis.
17. How can vaccines be analysed?

IV. Answer the following.

1x10=10

18. What immunological mechanism most likely accounts for a person developing a reaction within a few minutes after an insect bite?

- a) Name the mechanism.
- b) Explain the mechanism.

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