

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2008-09)
SUBJECT CODE: ZL/MC/IM34

B.Sc. DEGREE EXAMINATION NOVEMBER 2009
BRANCH VIA. –ADVANCED ZOOLOGY AND BIOTECHNOLOGY
THIRD SEMESTER

COURSE : MAJOR CORE
PAPER : IMMUNOLOGY
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS

(10 x 3 = 30)

1. Fill in the blanks

- a) Phagocytosis as a cellular factor of immunity was first discovered by_____.
- b) The reactive units of antigens are called _____.
- c) Anaphylaxis is mediated by IgE and involves_____ and _____.

2. Choose the correct answer

- a) In the name designation of H1N1 virus, N stands for_____.
 - i) Natural Killer Cell ii) Null Cell iii) Neuraminidase enzyme.
- b) Rifamycins are antibiotics that are highly active against _____.
 - i) Gram Negative bacteria ii) Gram Positive bacteria iii) both (i) and (ii).
- c) The group of genes encoding HLA proteins is known as _____.
 - i) MHC ii) MHI iii) MC.

3. True/ False

- a) Programmed cell death of thymocytes is called apoptosis.
- b) Interferons are cytokines produced by leucocytes.
- c) Antibodies are specialized cells produced in response to antigens.
- d) Immunosurveillance is an important phenomenon in keeping the body free of cancer cells.
- e) The activated B cells produce a clone of plasma cells and memory cells.
- f) Natural Killer Cells (NK) are T cells and antigenically specific.

4. Match the Following

- | | |
|---------------------|-----------------------------|
| a) IgG | Perforin |
| b) IgD | Helper T cells |
| c) IgE | Antigen presenting cells |
| d) Cytotoxic T-cell | Allergic reactions |
| e) CD4 cells | Neutralize bacterial toxins |
| f) APC | Antigen receptors |

5. Define

- a) Immunoglobulins
- b) Cytokines
- c) Attenuation.

6. Distinguish between

- a) Cellular and humoral Immunity.
- b) IgG and IgM
- c) Hapten and Antigen.

7. Expand the following abbreviations

- a) IL b) MALT c) Ig

8. Name the Secondary lymphoid organs.

9. Illustrate the C.S. of Thymus.

10. Give the functions of

- a) T- Helper cells b) Macrophages c) Complement

SECTION – B**ANSWER ANY FIVE QUESTIONS****(5 x 6 = 30)**

- 11. What is an antibody? Explain its structure with the help of a diagram.
- 12. Explain the role of spleen in immunity.
- 13. Explain Immunological Memory.
- 14. Give a brief account on MHC and its role in immunity.
- 15. Explain the immune Reactions to bacterial infections.
- 16. Explain Immunotherapy with an example.
- 17. Write a short account on the different types of Antigen-Antibody reactions

SECTION – C**ANSWER ANY TWO QUESTIONS****(2 x 20 = 40)**

- 18. What is Immunity? Write an essay on Natural & Acquired Immunity.
- 19. Discuss the role of B cells and T cells in immunity.
- 20. Describe Anaphylactic Reactions of Hypersensitivity.
- 21. What are vaccines? Describe the different types of vaccine used in man.
