

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2011 – 12)

SUBJECT CODE: 11ZL/MC/IM54

B.Sc. DEGREE EXAMINATION NOVEMBER 2013
BRANCH VI A – ADVANCED ZOOLOGY & BIOTECHNOLOGY
FIFTH 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) Epitopes are also called _____.
- b) Natural killer cells are common in _____.
- c) Most abundant class of anti-body in the serum is _____.

2. Choose the correct answer

- a) First Immunoglobulin to be produced in infection is
i)IgG ii)IgM iii)IgA
- b) The cells which mediate Type I hypersensitivity
i) Basophilic Mast Cells ii) NK Cells iii) Neutrophils
- c) T cells are from
i) Bone marrow ii) thyroid iii)thymus

3. State true or false

- a) All antigens are immunogens.
- b) Spleen is a systemic lymphoid organ.
- c) Semi killed pathogens produce toxoid.
- d) IgM is a pentamer.
- e) MHCantigens result in graft rejections.
- f) NK cells are antigen presenting cells.

4. Match the following

- a) MAC i) Thymus
- b) Arrthus reaction ii) Physiological barrier
- c) MALT iii) Complement activation
- d) Heat iv) Histamines
- e) Allergen v) Type III Hyper sensitivity
- f) Hassall's corpuscles vi) Peyer's patch

5. Define

- a) Immune response. b) Hapten. C) Phagocytosis

6. Distinguish

- a) Cellular and humoral immunity
b) Antigen and antibody
c) Active and passive immunity

7. Expand

- a) MHC b) PEG c) IFN
8. Name any three phagocytic cells
9. Draw a neat labeled diagram of lymph node
10. Describe Antibody dependent cell-mediated Cytotoxicity.

SECTION – B**ANSWER ANY FIVE QUESTIONS****(5x6=30)**

11. Discuss the role of B and T cells.
12. Give a brief account on the properties and types of Cytokines.
13. What is transplantation? Enlist the causes of graft rejection.
14. Comment on natural and acquired immune systems.
15. Discuss Type II Hyper sensitivity reactions.
16. Outline the classical pathway of complement activation.
17. What are the different types of vaccines used in man?

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

18. What are immunoglobulins? Classify and give their biological significance.
19. Elaborate on cells of the immune system.
20. Discuss immune reaction in bacterial infections.
21. Discuss use of immune serum for therapy in anti-venom, anti-tetanus and anti-D sera.
