



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied and Health Sciences

DEPARTMENT OF **MEDICAL SCIENCES**

DIPLOMA IN MEDICAL LABORATORY SCIENCES
(DMLS 10M)

AML 2320: IMMUNOLOGY

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

SERIES: February 2013

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this examination

- *Answer booklet*

This paper consists of **TWO** sections.

Answer all questions in **Section A** and **B**. ½ marks deducted for any wrong answer in **Section A**.

This paper consists of 5 PRINTED pages
SECTION A (40MARKS)

1. Oncogenic viruses include
 - a) Epstein Barr virus
 - b) Hepatitis B virus
 - c) Influenza Virus
 - d) Hepatitis B virus

2. Autoantibodies
 - a) React to foreign antigens
 - b) Recognize self antigens
 - c) Do not cause immune response
 - d) Result to energy of B cells

3. Acquired immunodeficiency result due to
 - a) Malnutrition
 - b) Immunosuppressive drug
 - c) Hereditary
 - d) None of the above

4. Hyperacute graft rejection
 - a) Occur minutes after transplantation
 - b) Taken years to occur
 - c) Are cellular mediated
 - d) Are humoral mediated

5. Cyraft rejection displays
 - a) Specificity
 - b) Memory
 - c) Non Specificity
 - d) None of the above

6. Tumors can be
 - a) Berign
 - b) Malignant
 - c) Systemic
 - d) None of the above

7. Lack of co-stimulatory molecules may result to :-
 - a) Incapecitation of T cells
 - b) B Cells response
 - c) Immune reaction
 - d) Antibody response

8. Autoimmunity disorders result from
 - a) Autoantibody

- b) Tolerance
 - c) Choral Anergy
 - d) Immune deviation
9. X-Winked agammaglobulinemia is associated with
- a) Absence of immunoglobulin
 - b) Decreased T cells count
 - c) Increased levels of immunoglobulin
 - d) None of the above
10. Cell mediated deficiencies can result from
- a) Thymic aphasia
 - b) Defects in B cell maturation
 - c) Defective T cell maturation
 - d) Defects in humoral responses
11. Inappropriate expression of class II MHC molecules may cause
- a) B cell incapacitation
 - b) T cell Anergy
 - c) Autoimmunity
 - d) Tolerance
12. B cell tolerance occurs in
- a) Bone marrow
 - b) Liver
 - c) Spleen
 - d) Lymph node
13. T cell subpopulation involved in allograft rejection include:-
- a) T helper cells
 - b) T cytotoxic cells
 - c) T suppressor cells
 - d) T delayed hypersensitivity cells
14. Chronic rejection
- a) Develop months or years after transplant
 - b) Mediated by antibodies
 - c) Difficult to manage
 - d) Medicated by cell mediated mechanisms only
15. Primary immunodeficiency
- a) Its as a result of cellular immunity
 - b) Humoral mediated
 - c) Its genetical
 - d) Its acquired.
16. Central tolerance is mediated in the
- a) Bone marrow

- b) Thymus
 - c) Spleen
 - d) Lymphrode
17. Immunocompetence of T cells occurs in
- a) Thynus
 - b) Spleen
 - c) Liver
 - d) Lymphnode
18. Toleragen is an
- a) Antigen response
 - b) Antigen that induces tolerance
 - c) Antibody
 - d) None of the above
19. Immunodeficiency is caused by
- a) Impaired immune system
 - b) Infection
 - c) Exposure to radiation none of the above
 - d) None of the above
20. The following are antigen
- a) Hapten
 - b) Toloregen
 - c) Immunogen
 - d) Proteins

SECTION B ESSAY (60MARKS) Answer all questions

1. Discuss transplantation under the following
- a) Types of transplants **(5marks)**
 - b) Manifestation of Graft rejection **(15marks)**
2. a) Discuss tolerance i.e. causes and types of tolerance **(10marks)**
 b) Define Autoimmunity, outline causes of autoimmunity and classify autoimmune disorders **(10marks)**
- (10marks)**
3. Discuss Tumour immunology under the following readings
- a) Types of tumour Antigens **(10marks)**
 - b) Cause of immune evasion by tumor antigens **(10marks)**