



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES

DIPLOMA IN MEDICAL LABORATORY SCIENCES
(DMLS 13 J MID / DMLS 12M)

AML 2222 : IMMUNOLOGY II

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

SERIES: OCTOBER 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**. $\frac{1}{2}$ marks deducted for any wrong answer in **Section A**.

This paper consists of 6 PRINTED pages
SECTION A (40MARKS)

1. The outernatise name for type III hypersensitivity is
 - a) Delayed types hypersensitivity
 - b) Immune complex hypersensitivity
 - c) Antibody mediated hypersensitivity
 - d) Anaphylactic hypersensitivity

2. State one example of type II hypersensitivity
 - a) Blod transfusion reactions
 - b) Intraveums allergens
 - c) Serum sicieness
 - d) Arthus reaction

3. Engulfing and killing particulate proteins in immunology is referred to as:
 - a) Phafocytosis
 - b) Acisocytosis
 - c) Heusocytosis
 - d) Leusocytosis

4. Proteins produced by cells in the presence of specific entigens are referred to as
 - a) Antigen presenting cells
 - b) Cytokines
 - c) Interferous
 - d) Protective proteins

5. How molecular weight substances that cannot stimulate immune response unless conjugated to carrier molecules are reffered to as:
 - a) Haptens
 - b) Immunogene
 - c) Immunoglobuibe
 - d) Antibodies

6. The ability to react with products of immune responses is reffered to as:
 - a) Antigenicity
 - b) Immunogenity
 - c) Pathogenicity
 - d) None of the above

7. The group of cytokines produced in response to virus infections are referred to as
 - a) Interleukins
 - b) Interferon's
 - c) Tumour narcosis factors

- d) None of the above
8. Antigens that stimulate hypersensitivity are referred to as :
- Antibodies
 - Allergens
 - Immunogens
 - None of the above
9. Immediate hypersensitivity is the alternative name for type _____ hypersensitivity
- Type I
 - Type II
 - Type III
 - Type IV
10. Replacement of diseased / dead cells, tissues, organs is referred to as:
- Transplantation
 - Transfusion
 - Transportation
 - Grafting
11. Specific immunological unresponsiveness to self antigens or to foreign antigen is referred to as:
- Auto immunity
 - Tolerance
 - Interleukin
 - None of the above
12. The ability to stimulate immune responses is referred to as:
- Immuno genicity
 - Antigenicity
 - Pathogenicity
 - None of the above
13. Regulating the amplitude of immune responses is the main role of _____
- Cytokines
 - Lymphocytes
 - Interferons
 - None of the above
14. The following are characteristics of antigens which one is not
- Are proteins in nature
 - Have low molecular weight
 - Have high solubility
 - Are present in high doses
15. Following are characteristics of acquired immunity which one is not
- Specific
 - Provides second line defence
 - Capable of discriminating between non self and self

- d) Does not confer resistance to re-infection
16. Cell mediated immunity is mediated by one of the cells
- T-lymphocytes
 - Natural killer cells
 - Mast cells
 - None of the above
17. Define adjuvants as used in immunology.
- Fluids consumed during dehydration
 - Substances that enhance the immune response
 - How molecular kininogens
 - Specific proteins to present Antigens
18. Which among the following corrective measure are for type I hypersensitivity
- Avoiding the allergen
 - Use of antihistamines
 - Performing histocompatibility tests before grafting
 - None of the above
19. Auto immunity in immunology usually occurs when:
- In tolerance breakdown
 - HIV /Aids patients
 - Immune suppressed individuals
 - None of the above
20. What class of vaccine involves actual live organisms rendered non
- Live vaccines
 - Live attenuated vaccines
 - Dead vaccines
 - Semi-synthetic vaccines
21. Molecular mimicry is one cause of _____
- Auto immunity
 - Tolerance breakdown
 - Auto hypersensitive
 - Death
22. Which among the following are the two categories /classes of tolerance
- Clonal tolerance
 - Clonal anergy tolerance
 - Central tolerance
 - Peripheral tolerance
23. Which among the following are characteristics of the innate immune system
- Non specific in nature
 - Have memory
 - Do not confer resistance to re-infection

- d) First line defense against entry of disease causing organisms
24. _____ is an example of type I hypersensitivity
- Blood transfusion reactions
 - Hay fever
 - Systemic lupus erythromatosus
 - Serum sickness
25. Which among the following is an example of type III hypersensitivity
- Systemic lupus erythromatosus
 - Asthma
 - Eceema
 - None of the above
26. The immune system in mammals is divided into:
- Maternal immune system
 - Innate immune system
 - Acquired immune system
 - None of the above
27. Which among the following are classes of antibodies
- IgA
 - IgG
 - IgM
 - IgS
28. B and T lymphocytes are usually manifested in
- Innate immunity
 - Acquired immunity
 - Both A and B
 - None of the above
29. Interferns are
- Group of cytokins produced in responses to bacterial infutions
 - Group of cytokines produced in response to viral infections
 - Group of cyctokines produced in response to parasitic infections
 - None of the above

SECTION B (60marks)

- Discuss type IV hypersensitivity (20marks)
- Discuss the immunology of transplantation (20marks)
- Discuss the causes of tolerance break down (20marks)