



TECHNICAL UNIVERSITY OF MOMBASA
Faculty of APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATIONS FOR DEGREE IN
BACHELOR OF MEDICAL LABORATORY SCIENCE
BMLS 12S MID ENTRY

AML 4320 : IMMUNOPATHOLOGY

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST 2013

TIME: 2 HOURS

INSTRUCTIONS:

1. Answer All questions in section A and B.
2. This paper consists of Seven printed pages

1. Which of the following is responsible for caring graft versus lost reactions.

- A. Platelets
- B. Granulocytes
- C. Monocytes
- D. Lymphocytes
- E. Basophils

2. T cells which do not recognize self MHC or which recognize of bind with high affinity to self antigen are selected out of do not develop further this is phenomenon is.known as

- A. Positive selection
- B. Adaptive selection
- C. Destructive selection
- D. Thymic selection

E. Name of the above.

3. For ----- to occur, the key mechanism of Immunological tolerance must be broken down.

- A. Immunological Ignorance
- B. Anergy
- C. Suppression
- D. B cell tolerance
- E. Autoimmune responses.

4. Naïve CD⁴ + cells need two signals to become activated and initiate an Immune response. If no constimulatory molecules are engaged, then stimulation through T-cell receptor alone leads to apoptosis or a state of the longstanding unresponsiveness called.

- A. Anergy
- B. Mimicry
- C. Suppression
- D. Tolerance
- E. Ignorance

5. Allergy is an exaggerated Immune response that is manifested by what reaction.

- A. Immunopathology
- B. Hypersensitivity
- C. Inflammation
- D. Fever
- E. Autoimmunity

6. Which of the categories of hypersensitivity Involve a T-cell response.

- A. Type I
- B. Type II
- C. Type III
- D. Type IV
- E. All of the above.

7. Human papillomavirus inserts its genome into a host chromosome which disrupts usual cellular growth controls. HPV is a strong risk factor for which of the following cancer.

- A. T-cell leukemia
- B. Burkitt Lymphoma
- C. Nasopharyngeal carcinoma
- D. Liver cancer
- E. Cervical cancer.

8. The primary types of cells that operate in surveillance of destruction of tumor cells are cytotoxic T cells macrophage of.
- A. NK cells
 - B. Dendritic cells
 - C. Neutrophils
 - D. Eosinophils
 - E. Monocytes
9. Central tolerance occurs in
- A. Bone marrow
 - B. Liver
 - C. Spleen
 - D. Lymph nodes
 - E. Tonsils
10. Which of the categories of hypersensitivities involves a T-cell response?
- A. Type I
 - B. Type II
 - C. Type III
 - D. Type IV
 - E. All of the above
11. Which category of hypersensitivities is IgE mediated.
- A. Type I
 - B. Type II
 - C. Type III
 - D. Type IV
 - E. All of the above
12. Most cells have important roles in the development of allergies. This is due to all of the following except.
- A. Their tendency to degranulate
 - B. Their cytoplasmic granules that contain physiologically active chemicals.
 - C. Their ubiquitous location tissues.
 - D. Their ability to produce IgE
 - E. Their capacity to bind IgE during sensitization
13. Which of the following is not an autoimmune disease.
- A. SLE
 - B. Type 1 diabetes
 - C. Serum sickness
 - D. Rheumatoid arthritis

E. Multiple sclerosis

14. A positive tuberculin skin test is an example of what type of hypersensitivity reaction.

- A. Type I
- B. Type II
- C. Type III
- D. Type IV
- E. All of the above

15. May occur a few weeks or months following transplantation.

- A. Hyperacute rejection
- B. Chronic rejection
- C. Acute rejection
- D. Complex rejection
- E. Simple rejection

16. The commonest infecting organization in antibody deficiency state are

- A. Viruses
- B. Pyogenic bacteria
- C. Fungi
- D. Parasites
- E. Protozoa

17. Grafting of a person's tissues from one part of their body to another

- A. Homotypic graft
- B. Autologous graft
- C. Xenogenic graft
- D. Autologous graft
- E. Allogeneic graft

18. Contact dermatitis to occupational or other antigens is a type ---- hypersensitivity reaction.

- A. V
- B. I
- C. II
- D. III
- E. IV

19. Cytotoxic T-cells and helper T- cells are responsible for fighting.

- A. Viruses
- B. Parasites
- C. Certain bacteria
- D. A & C
- E. A, B & C

20. The majority of patients with primary antibody deficiency present with.
- A. Respiratory Infection
 - B. Skin Infection
 - C. Splenomegaly
 - D. Gut Infection
 - E. Meningeal Infection
21. Some self antigens are effectively invisible to the Immune system- this is known as
- A. Thymic tolerance
 - B. Auto Immunity
 - C. Immunological Ignorance
 - D. Anergy
 - E. Molecular mimicry
22. Transplantation across a species barrier, for instance from pigs to humans is
- A. Halotypic grafting
 - B. Autonomic grafting
 - C. Xenogenic grafting
 - D. Auto logens grafting
 - E. Allogenic grafty
23. The most importance antigens in organ transplantations.
- A. Histogenic antigens
 - B. Histocompatible antigens
 - C. Histo compatible antigens
 - D. Histo compatibility antigens
 - E. Antigenic lostoicytes
24. Macrophage develop from
- A. Mycloid cells
 - B. T cells
 - C. B cells
 - D. Monocyter
 - E. Thymocytes
25. Which theory on the origination of autoimmune diseases starch that type diabetes is triggered by a viral infection?
- A. Theory of immune deficiency
 - B. Molecular mimicry
 - C. Clonal selection theory
 - D. Sequested antigen theory
 - E. Type III hypersensitivity

26. What is the most abundant of fortent acting cytokine released by mast cells.
- A. Serotonin
 - B. Histamine
 - C. Brandykinin
 - D. Leukotricine
 - E. Platelet – activaty factor
27. The material antibodies that cross the placenta and lead to the development of evythroblastosis fetalis are of what class?
- A. 1g M
 - B. 1g A
 - C. 1g D
 - D. 1g G
 - E. 1g E
28. All but which of the following statements characterizes an cutlus reaction.
- A. It is a systemic reaction
 - B. It depends on the formation of 1gG,1gM, or 1gA
 - C. The onset of sysmptoms is delayed
 - D. It is localized reaction
 - E. Large doses of antigen are required for its iINITIATIONS
29. What substance infected into patients undergoing allergic desensitization?
- A. 1g G antibodies
 - B. 1g E antibodies
 - C. Monoclonal antibodies against 1gE
 - D. Corticosteroid
 - E. Pure allargen to which the patient is allergic
30. What cells initially recognize grafted tissue and begin to process of rejection.
- A. Helperb T-cells
 - B. B cells
 - C. Macophages
 - D. Stem cells
 - E. Cytotoxic T cells.

SECTION B

- a) Discuss any three congenital Immunodeficiency disorders. (20marks)
- b) Discuss the mechanisms of Graft rejection. (20marks)