



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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REGINA PACIS INSTITUTE OF HEALTH SCIENCES

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2019 TRIMESTER

FACULTY OF SCIENCES

DEPARTMENT OF NURSING

REGULAR PROGRAMME

NUR / UNUR 200: IMMUNONLOGY

Date: DECEMBER 2019

Duration: 3 Hours

INSTRUCTIONS: Answer ALL Questions

PART -I: MULTIPLE CHOICE QUESTIONS (MCQs)

(20 MARKS):

Instructions: Answer all the questions in this sections

- Q1. The immune system cells are concentrated in the.....
- a) Thymus
 - b) Adenoids
 - c) Serum
 - d) Plasma
- Q2. To confer immunity.....practiced variolation to alleviate pain and suffering from endemic diseases that were raging their countries at that time.
- a) Greece
 - b) England
 - c) China
 - d) Thucydides
- Q3. Immune response is
- a) The resistance to infection by cells, tissues and molecules
 - b) The Coordination reaction of cells, tissues as well as molecules
 - c) The Cumulative collection of cell, tissues as well as molecules
 - d) Coordinated by antigens that cells, tissues as well as molecules

- Q4. The principle components of the immune system are.....?
- a) Antigen and Antibodies
 - b) T and B cells
 - c) Secondary and primary cells
 - d) Cells
- Q5. Which of the following statement is true of humoralists?
- a) They believe that phagocytes rather than antibodies play a leading role in immunity
 - b) Believe that a soluble substance in the body was mainly responsible for mediating immunity
 - c) Believe that both phagocytes and antibodies were responsible for conferring immunity
 - d) Believe that certain cells unconnected with the digestive system were responsible for immunological responses.
- Q6. Lymphoid stem cells of the immune system include.....
- a) Red blood cells/erythrocytes
 - b) Monocytes and Macrophages
 - c) Eosinophil and mast cells
 - d) B and T cells
- Q7. Which of the following best describes blood components
- a) Serum contains clotting factors in blood to mediate an immune response
 - b) Proteins and immunoglobulin bind to foreign molecules when in blood
 - c) Plasma component is generated after blood has clotted and has protein elements
 - d) Antibodies in serum are distinguished by their ability to specifically bind antigens.
- Q8. Which of the following represent the sites of lymphocyte activation
- a) Balt
 - b) Spleen
 - c) Galt
 - d) Thymus
- Q9. Peyer's patches are immunological elements that.....
- a) Confer resistance to respiratory tract
 - b) Confer resistance to gastro-urogenital tract
 - c) Are associated with BALT
 - d) Are associated with GALT

- Q10. During hematopoiesis, certain cell of the immune system undergo maturation in the thymus?
- a) Natural killer cells
 - b) B- lymphocytes
 - c) T lymphocytes
 - d) Macrophages
- Q11. Cells that are not antigen presenting produces small peptide that are complexed in...?
- a) MHC class 11 molecule
 - b) MHC class 1 molecule
 - c) T-cell receptors
 - d) Antigen presenting Cells
- Q12. The complexing of the small peptides and MHC class 11 occurs in the.....
- a) Vacuoles
 - b) Cytoplasm
 - c) APC'S
 - d) TCR
- Q13. T cells have on their surfaces.....to recognize peptides complexed to MHC class 11.
- a) CD4 molecules
 - b) CD8 Molecules
 - c) CD4+ T-cells
 - d) CD8+ T-cells
- Q14. Which one of the following describes Innate immune system
- a) It involves the activation of B lymphocytes to eliminate infections
 - b) It influences that nature of the adaptive immunity to fight diseases
 - c) Uses many effectors of the adaptive immunity to eliminate infections
 - d) They at rest until they encounter a particular pathogen expressing an Ag.
- Q15. Which of the following scientist was the first to recognize the contribution of phagocytosis to the generation of immunity?
- a) Edward Jenner
 - b) Robert Koch
 - c) Elie Metchnikoff
 - d) Paul Ehrlich

- Q16. Which of the following cell of the innate immunity are responsible for response to parasitic infections.
- Neutrophils
 - Basophils
 - Eosinophil's
 - Macrophages
- Q17. Cell mediated immunity involves the following in response to infection
- Activation of humoral immunity and B-cells
 - Activation of innate immunity and T cells
 - Activation of adaptive immunity and innate immunity
 - Activation of T-lymphocytes
- Q18. T-cell produce cell mediated acquired immune responses by
- Cytotoxic function
 - Stimulation of T cells
 - Production of proteins
 - All of the above
- Q19. Cytokines are produced by.....
- T cells
 - B cells
 - Macrophages
 - Neutrophils
- Q20. A complement component which is strongly chemotactic for neutrophils is:
- C9
 - C5a
 - C3b
 - C5b

**PART-II: SHORT ANSWER QUESTIONS (SAQs)
MARKS):**

(40

- Q1. a) Antigens evoke or trigger an immunologic response after invasion. Justify this by discussing antigens **(6 marks)**
- b) Name two primary organs of the immune system **(2 marks)**
- Q2. The historical view of disease recognizes germ theory as the corner stone of medicine. Elaborate this statement by writing short notes on this theory according to Robert Koch. **(6 marks)**

- Q3. a) Discuss non hematopoietic components of blood and their contribution in conferring immunity. (7marks)
- b) Name three classes of hematopoietic cells (3marks)
- Q4. Discuss the migration of mature lymphocytes while giving relevant examples after hematopoiesis (6 marks)
- Q5. Phagocytes are white blood cells that play a protective role in our lives. Discuss (7 marks)
- Q6. Name the functions of compliment system products in humoral response (3 marks).

PART III: LONG ANSWER QUESTIONS (LAQs) (40 MARKS)

- Q1. With an aid of a well labeled diagram discuss hematopoiesis (20 marks).
- Q2. Discus mononuclear leucocytes, and distinguish the two major types with an aid of a well labelled diagrams (20 marks)

END