

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATION**

**RESIT /SPECIAL EXAMINATION**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN  
BIOCHEMISTRY**

**BMET 417: IMMUNOLOGY AND IMMUNOCHEMISTRY**

**STREAMS:**

**TIME: 2 HOURS**

**DAY/DATE: WEDSDAY 03/11/2021**

**2.30 P.M – 4.30 P.M**

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**INSTRUCTIONS**

- i. Answer Question One and any other Two Questions**
- ii. Do not write on the question paper**

**Question One (30 marks)**

- a) Briefly describe the cells that originate from the myeloid lineage . (6 marks)
  
- b) What are the various humoral barriers to infection that protects the body once the anatomical barriers have been breached? (6 marks)
  
- c, Phagocytic cells have a variety of receptors on their cell membranes through which infectious agents bind to the cells. These include? (6 marks)
  
- c) Differentiate between the antigenic determinants recognized by B cells and those recognized by T cells in terms of composition size and number. (6 marks)
  
- d) Antigen antibody reactions can also be measured by their ability to fix complement. Explain. (6 marks)

**Question Two (20 marks)**

- a) With the aid of well labeled diagram describe the lymphoid organs. (10 marks)
- b) Describe in detail the basic types of vaccines (10 marks)

**Question Three (20 marks)**

- a. With the help of a well labeled diagram, explain in detail the basic structure of immunoglobulins . (10 marks)
- b. The MHC gene complex contains a number of genes that control several antigens. Discuss. (10 marks)

**Question Four (20 marks)**

- a) Elucidate the various mechanisms that contribute to the pathogenesis of autoimmune diseases. (10marks)
  - b) Discuss in details the classical pathway of complement activation. (10 Marks)
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