

JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
BSC. COMMUNITY HEALTH & DEVELOPMENT/PUBLIC HEALTH
HCD 3325: BASIC IMMUNOLOGY
Y3S2 (August 2013)

(KISUMU LEARNING CENTER)

Instructions:

This paper has 2 sections; Section A has 10 short answer questions while Section B has 4 essay questions. Illustrate your answers with diagrams where appropriate.

Section A: Answer ALL Questions (Total 30 marks)

1. Define *immunology* and explain why this field is of interest to community health. (3mks)
2. "Not all *antigens* are *immunogens*". Elaborate citing an example. (3 mks)
3. Briefly describe the development of rheumatic fever. (3 mks)
4. Explain briefly the two distinct arms in which the immune system operates. (3 mks)
5. Briefly explain the basis of *immunoglobulin class*, naming examples in humans. (3 mks)
6. Briefly explain the three key features of *specific immune responses*. (3 mks)
7. Define *lymphoid tissues* naming the types and citing examples as appropriate. (3 mks)
8. What is the function of the *complement system* in immunity? (3 mks)
9. Explain any 3 methods used by parasites to avoid the immune system. (3 mks)
10. Define the term *autoimmune disorder* and name any 3 examples. (3 mks)

Section B: Answer ANY TWO Questions

1. Discuss the factors that influence immunogenicity of an antigen, citing relevant examples. (20 mks)
2. Immunization, which mimics natural infection, is an important part of community health enhancement. With the help of a well-labeled diagram, explain how IgM and IgG levels vary between primary and secondary immunization with the same antigen. (20 mks)
3. Describe in detail the three main host-related ways the immune system may fail. (20 mks)
4. During immune responses, there occur many interactions mediated by cell products called cytokines. Discuss any 5 qualities of cytokines that enhance their role in immunity. (20 mks)