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**KIBABII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**  
**2016/2017 ACADEMIC YEAR (SUPPLEMENTARY/SPECIAL EXAM)**  
**SECOND YEAR SECOND SEMESTER EXAMINATIONS**

**FOR THE DEGREE**  
**OF**  
**BACHELOR OF EDUCATION (SCIENCE) (B. ED SCIENCE) AND BACHELOR OF SCIENCE**  
**(B. SC BIOLOGY)**

**COURSE CODE: SZL 222**

**COURSE TITLE: IMMUNOLOGY I**

**DATE: 22/09/2017**

**TIME: 11:30 - 1:30 P.M**

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**INSTRUCTIONS TO CANDIDATES**

Answer Question **ONE** (Compulsory) and any other **TWO** questions.

TIME: 2 Hours

KIBABII observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over. ►



**Question 1 (Compulsory) 30 marks**

- a) State any THREE functions of complement in immune system (3 marks).
- b) Explain the role of cytokines in immunity (3 marks).
- c) Describe any THREE features of innate immunity (3 marks).
- d) Explain the advantages of live attenuated vaccines (3marks)
- e) State any three instances when heredity plays an important role in immunity (3 marks)
- f) Briefly explain the significance of breastfeeding in the neonate's development (3marks).
- g) Explain any three immunological tests that can be used to test for the presence of Salmonella typhi bacteria in a stool sample (3 marks)
- h) Explain the significance of mucus in immunity (3marks)
- i) Briefly explain the role of MHC molecules in immunity (3marks)
- j) Explain the function of dendritic cells in Immune system (3marks)

**Instructions: Attempt any TWO Questions from the ones below**

2. Write an essay on the organs of the immune system (20 marks)
3. Discuss how complement system will be activated via the alternate pathway on encountering extracellular bacteria (20 marks)
4. Grafting is an important practice in medicine Discuss the above statement pointing out various types of grafts and their fate during transplantation (20 marks)
5. Using your knowledge immunology, discuss various ways of managing common pediatric diseases (20 marks)