**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**P.O. Box 972-60200 – Meru-Kenya.**

 **Tel: 020-2069349, 061-2309217. 064-30320 Cell phone: +254 712524293, +254 789151411**

**Fax: 064-30321**

**Website:** [**www.must.ac.ke**](http://www.must.ac.ke) **Email:** **info@must.ac.ke**

**University Examinations 2016/2017**

THIRD YEAR, FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES, BACHELOR OF EDUCATION SCIENCE.

**SZL 3302/SZA3300: BASIC IMMUNOLOGY/IMMUNOLOGY 1**

**DATE: DECEMBER, 2016 TIME: 2 HOURS**

**INSTRUCTIONS: -** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Explain meaning of the following terms as used in immunology. (4 marks)
2. Autoimmunity
3. Immunogen
4. List at least four features of acquired immune system that distinguishes it from innate immune system. (4 marks)
5. Explain the roles of the following cells in immunology. (6 marks)
6. Neutrophils
7. Natural killer T-cells
8. B lymphocytes
9. Describe the thymus and its role as a primary lymphoid organ. (6 marks)
10. Discus 1gM under the following topics. (6 marks)
11. Structure
12. Increase in serum
13. Decrease in serum
14. Outline the different types of tissue transplantation. (4 marks)

**QUESTION TWO (20 MARKS)**

1. Discuss with the aid of a schematic the characteristics of IgG. (20 marks)

**QUESTION THREE (20 MARKS)**

Antigen/Antibody reactions are dependent on a variety of factors. Discuss (20 marks)

**QUESTION FOUR (20 MARKS)**

Discuss in detail the classical pathway of compliment activation. (20 marks)