



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2016/2017**

**SECOND YEAR FIRST SEMESTER EXAMINATIONS FOR THE  
DEGREE OF BACHELOR OF SCIENCE AND BACHELOR OF  
EDUCATION SCIENCE WITH INFORMATION TECHNOLOGY**

**MAIN CAMPUS**

**SZL 203: HISTOLOGY AND CYTOLOGY**

Date: 5<sup>th</sup> December, 2016

Time: 12.00 - 3.00 pm

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**INSTRUCTIONS:**

- Answer ALL questions in SECTION A (60 marks) and any TWO in SECTION B (20 marks each).
- Illustrate your answers with labeled diagrams where appropriate.



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**SZL 203: HISTOLOGY AND CYTOLOGY      TIME: 2 Hours**

**Illustrate your answers with labeled diagrams where appropriate**

**SECTION A (60 Marks): Answer all questions in this section (Each question carries 6 marks)**

- Q1.** Name three types of connective tissue fibers and state one function of each
- Q2.** State 4 basic functions of surface epithelia and name one organ in which the functions apply
- Q3.** State 4 common structural features of epithelial tissues and state one general function applicable to each
- Q4.** With examples of one specific epithelial tissue, name the morphological features by which the epithelial tissues are classified
- Q5.** Name two resident cells of the animal connective and state one function of each.
- Q6.** Name two immigrant cells of the animal connective tissue and explain why they are referred to as immigrant cells
- Q7.** Name and explain 3 (three) developmental stages of the bone cells
- Q8.** Name 4 types of collagen in mammalian tissues and one organ in which they are found
- Q9.** Draw a simple diagram of human skin to show the constituent tissues.
- Q10.** Briefly explain two roles of the adipose tissue in the animal body

**SECTION B (40 Marks): Answer any two (2) questions in this section (20 Marks each)**

**Q11.** Give brief accounts of the following lymphoid tissues/organs, to include their body locations and immunological functions in humans: 1) Thymus, 2) Spleen

**Q12.** Describe the molecular units of the contractile system of the skeletal muscle, to include the "bands", the "lines", and the organelles involved

**Q14.** Discuss the molecular structure of the human skin **dermis** as an integrated component of the **whole**

**Q15.** Describe the process of formation of the Red Blood Cell (Erythropoiesis) starting with the typical cell