



EMBU UNIVERSITY COLLEGE
(A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)
SECOND SEMESTER EXAMINATIONS 2013/2014

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE BIOLOGY AND BACHELOR OF SCIENCE MICROBIOLOGY AND
BIOTECHNOLOGY

SZL 202: HISTOLOGY

DATE: APRIL 4, 2014

TIME: 2.00 – 4.00PM

INSTRUCTIONS:

ANSWER ANY TEN (10) QUESTIONS (7 MARKS EACH)

Illustrate your answers with labeled diagrams where appropriate

1. Explain the following histological techniques
 - i) Chemical fixation (3 marks)
 - ii) Clearing (2 marks)
 - iii) Embedding (2 marks)
2. Differentiate between of prokaryotic and Eukaryotic cells
3. Describe briefly the structure and functions of three named specializations associated with the apical epithelial cell surfaces.
4. Outline the procedure of preparing cells for transmission in electron microscopy.
5. Explain briefly the specific functions of the skin under five broad categories.
6. Outline the parts of the urinary system and the processes performed to maintain homeostasis.
7. Write an essay on any two blood cells.
8. Define the following terminologies:

- i) Neuron (1 mark)
 - ii) Microtome (2 marks)
 - iii) Chromatin (1 mark)
 - iv) Ribosomes (1 mark)
 - v) Autolysis (2 marks)
9. Briefly outline the uses and maintenance of compound microscopes.
10. Discuss types and functions of connective tissue in mammalian body.
11. Describe the structure and function of the Mitochondrion
12. Give the functions of the following histopathology laboratory
- i) Xylene
 - ii) Eosin
 - iii) Haematoxylin

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