



EMBU UNIVERSITY COLLEGE
(A Constituent College of the University of Nairobi)

2015/2016 ACADEMIC YEAR

FIRST SEMESTER EXAMINATIONS

**SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE,
BACHELOR OF SCIENCE IN MICROBIOLOGY AND BIOTECHNOLOGY,
BACHELOR OF SCIENCE AND BACHELOR OF SCIENCE IN BIOLOGY.**

SZL 202: HISTOLOGY

DATE: NOVEMBER 30, 2015

TIME: 14:00 – 16:00

INSTRUCTIONS:

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

1. Explain the precautions necessary in sample collection and transportation.
2. Discuss qualities of a good fixative and the significance of secondary tissue fixation.
3. a) Explain major stages in tissue processing.
b) Explain why paraffin wax is a popular embedding material.
4. Discuss the Microtomy technique.
5. a) Explain briefly factors that may affect the quality of a stained tissue.
b) Explain the principle of hematoxylin and eosin stains.
6. Discuss the applications of freeze- dried histological specimens

7. a) Compare and contrast transmission electron microscopy (TEM) and scanning electron microscopy (SEM).
- b) Explain briefly the advantages of osmium tetroxide fixative in electron microscopy work.
8. Describe the classification of epithelium.
9. Give an account of connective tissue fibers.
10. Differentiate between hyaline cartilage and elastic cartilage.
11. Discuss briefly the different types of muscles.
12. Discuss the functions of different types of bone tissue.

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