



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

MAY INTAKE SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

SZL 106: LABORATORY METHODS IN BIOLOGY

DATE: Thursday 4th August, 2011

TIME: 2.00 p.m. – 4.00 p.m.

INSTRUCTIONS

Answer ALL questions in Section A and any ONE question in Section B. Within a Section ALL questions carry equal marks. Illustrate your answers with diagrams wherever appropriate.

SECTION A – (40 MARKS)

1. Distinguish histologic from cytological observations.
2. State five things you should not do in a biology laboratory.
3. Explain the principles of fluorescent microscopy using a well labeled diagram.
4. Outline the procedure for using a bunsen burner.
5. Formulate the questions you should first answer before the purchase of a laboratory equipment.
6. Describe the characteristics of a well preserved plant cell section.
7. Explain the significance of the following regulations.
 - a) Wearing proper clothing
 - b) Being cautious with chemicals
8. Describe the composition of neutral formaldehyde and its uses.

SECTION B - *Answer ONE question only (30 marks)*

9. Give an account of the design and uses of a pH meter.
10. Describe a suitable procedure for making a slide of the following preparations:
 - a) Mitotic chromosomes for microscopic examination
 - b) A karyotype
11. Discuss the rules, techniques and applications of sedimentation.

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