



UNIVERSITY OF NAIROBI

SPECIAL /SUPPLEMENTARY EXAMINATIONS 2006/2007

SECOND YEAR EXAMINATIONS FOR THE DEGREE OF BACHELOR OF
SCIENCE

SBL 202: LABORATORY TECHNIQUES

10/10/07
DATE: 12TH OCTOBER, 2007

TIME: 2.00 P.M. – 4.00 P.M

ANSWER ANY TEN (10) QUESTIONS (7 Marks Each)

1. Describe a named biological assay.
2. Outline the principles and applications of gel filtration chromatography.
3. Outline the principles and applications of the electrophoresis technique.
4. Give a concise account of the principles and applications of colorimetry.
5. Describe two techniques used to detect radioactivity and explain why high doses of radiation are harmful to life.
6. Compare and contrast the use of electronic meters and chemical indicators in the measurement of pH.
7. Describe how you would rear a colony of *Schistocerca gregaria* in the laboratory.
8. Describe how you would separate a mixture of amino acids using column adsorption chromatography.
9. Outline the principles and applications of affinity chromatography.
10. Describe the gas-liquid chromatography technique.
11. Briefly discuss the use of centrifugation techniques in fractionation and purification of sub-cellular components.
12. Give a concise description of the ion exchange chromatography technique.
13. Describe how you would rear a colony of *Aedes aegypti* in the laboratory.
14. Give a concise account of the principles and applications of flame spectrophotometry.
15. Describe the thin layer chromatography technique.