

COURSE TITLE: METHODS IN BIOCHEMISTRY

TIME: 2 HRS

COURSE CODE: BCH 309

DATE: 29<sup>TH</sup> JUNE, 2011

INSTRUCTIONS: Answer question one (1) and any other three (3) questions

1. Chromatography is a major technique in analytical chemistry. Discuss.
2. Describe briefly the principle and procedure involved in the electrophoretic separation by gels which employs sodium dodecylsulphate (SDS).
3. a. What is isoelectric focusing?  
b. Electrophoresis is the method of choice for assessing protein purity, yet it is not frequently used as a purification step. Why?
4. a. In most centrifugation techniques, the rotors are usually mounted on a rigid suspension. Describe the various precautions involved in this technique.  
b. Differentiate between large capacity refrigerated centrifuge and High speed refrigerated centrifuge.  
c. What is the need for the incorporation of an overspeed control system in preparative ultracentrifuges?
5. a. What is colorimetry?  
b. What is the major difference between spectrophotometry and colorimetry?  
c. When working with a spectrophotometer in the laboratory, state the precautions to be observed.