## AMERICAN UNIVERSITY OF BEIRUT FACULTY OF ARTS AND SCIENCES DEPARTMENT OF EDUCATION Fall 2005 -2006 EDUCATION 255 -- FINAL EXAMINATION

Instructor: Dr. Saouma BouJaoude

Time: Two Hours

Date: January 28, 2006

- 1. Modify the following objectives to transform them into good instructional objectives (20 points)
  - a) Students should be able to understand the general characteristics of modern science
  - b) Students should be able to know the properties of hydrocarbons
  - c) teach students how to use laboratory equipment
  - d) Students should be able to understand the elements of inquiry
  - e) Make sure that students comprehend the properties of mammals
- 2. The learning cycle is an inquiry teaching method that can be used in the science classroom. Describe the steps of the learning cycle (12 points) and explain why the learning cycle can be considered a constructivist teaching method (16 points).
- 3. Describe three components of the nature of science (9 points). Describe one science demonstration that can be used to illustrate these components (18 points)
- 4. Differentiate between using inquiry as a means and as an end (12 points). What are the advantages of each of these approaches? (13 points)