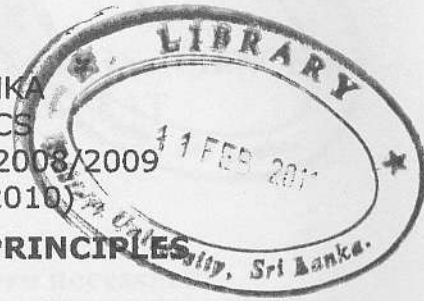EASTERN UNIVERSITY, SRILANKA
DEPARTMENT OF MATHEMATICS
SECOND EXAMINATION IN SCIENCE – 2008/2009
SECOND SEMESTER (Sep./Nov., 2010)

CS 205 – SOFTWARE ENGINEERING PRINCIPLES
(Proper & Repeat)

Answer all questions   Time allowed: 1 Hour

1)

   a. What do you understand by Well Engineered Software?

   b. List four fundamental process activities.

   c. "It is always recommended to use a process model for any software development activities". Discuss the validity of the above statement.

   d. Briefly describe the Incremental development life cycle model. List the advantages of adopting this model for software development.

   e. List at least four tests that carried out during the life cycle of a software product.

2)

   a. Describe functional requirements and non functional requirements. List two suitable examples for each type of requirements.

   b. Explain the relationship between software design quality, cohesion and coupling?

   c. Given the following narrative description for a portion of the activities of a student registration system:

   Students submit registration forms with their name, identification number, and the numbers' of the courses they wish to take. For each form, the registrar verifies that each course selected is still open by referencing the course file. The file distinguishes courses that are still open from those that have been canceled or filled. Subsequently, the registrar determines the selection of students. Then the registrar enrolls the student in the courses for which he or she has been accepted and updates the university's course file with the student name and identification number and recalculate the class size. If maximum enrollment has been reached, the course is closed. The enrollment process also updates the student master file with information about new student or changes in address. The registrar then sends each student applicant a confirmation-of-registration letter listing the course for which he or she is registered and noting the course selections that could not be fulfilled.

   (i) Draw a context diagram for the student registration system.

   (ii) Draw the **level-0** DFD for the portion of the activities described.