THE OPEN UNIVERSITY OF SRI LANKA
DEPARTMENT OF COMPUTER SCIENCE
B.Sc. DEGREE PROGRAMME – 2016/2017
CPU2140: SYSTEM ANALYSIS AND SOFTWARE ENGINEERING
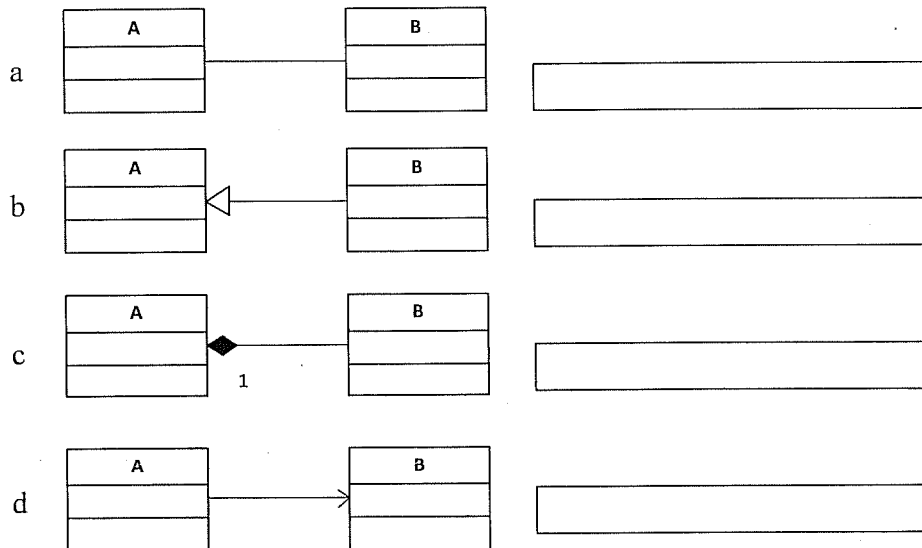NO BOOK TEST - 2
DURATION: ONE HOUR ONLY (1HR)   Reg. No:..............................

Date : 28th October, 2017	Time: 10.30am – 11.30am

Answer ALL Questions.

1. Identify **the relationship types** among class A and class B and write the name of it in the cage given in front of each diagram.

2. Identify the classes, relationships, and multiplicities and draw **the class diagram (sketch)** for each sentence given below.

   a. A faculty has one or more departments.

   b. A department offers one or more disciplines. A particular discipline will be offered by only one department.

   c. A discipline consists with one or many courses.

d. A department has lecturers and they can work only for the particular department.

e. A student can enroll in up to 3 disciplines.

f. A lecturer can teach up to 3 courses. The same course can be taught by different lecture.

3. Draw a **use case diagram** for the case given below.

A Cake Ordering System allows their customers of a web browser to order cakes for home delivery. To place an order, a customer searches to find items to purchase, adds items one at a time to a shopping cart, and searches again for more items, if they wish. When all items have been chosen, the customer provides a delivery address. Further, the customer provides credit card information to make the payment for his purchases. The system has an option for the customers to register with the cake shop. Then, they can save their name and address and other information, so that they do not have to enter this information every time that they place an order.

4. Consider the "login" use case of an information system. Draw an **activity diagram** for it. Use swim lanes. *(Note: - clearly State your valid assumptions, if there is.)*

5. Draw a **sequence diagram** for the same login mentioned in question No. 4. *Note: Consider the "successful login" only.*