THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME
CSU3277- SOFTWARE ENGINEERING
**OPEN BOOK TEST (OBT) – 2014/2015**
DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE

**DURATION: 1 HOUR**

| Date:  31.01.2015 | Time: 1.00 p.m. – 2.00 p.m. |
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**Q1.**

A system is to be built to assist Accounting and Business Information Systems (ABIS) to school administrative staff in the booking of classrooms. A more detailed description of the system is as follows.

The system is to accept classroom booking requests from ABIS administrative staff. When a request is received then it is checked to see that all the required information is included (e.g. date, the details of the course, time and duration of time for which it is required, the number of students, facilities needed and so on). If the request is incomplete or invalid in some other way then an "invalid request" message is sent to the requestor.

On the other hand, for a valid request, the booking file is used to generate a list of rooms that are available at the required date and time. If no rooms are available at that time, then a booking failure notice is sent to the requestor. If one or more rooms are available, these are then checked to see if it is of sufficient size and have the facilities required. If it does not satisfy the conditions and if there are no rooms suitable, a booking failure notice is sent to the requestor.

Finally, if only one room is available then it is booked. If more than one room is available then the room that can accompany the total number of students is selected out of the available rooms and it is booked, and will be the smallest one out of the others. In either case, a booking confirmation notice is sent to the requestor as well as to the course lecturer giving the information about the room that has been booked.

**Construct a Context Diagram and level zero Data Flow Diagram for the above class room booking system.**