Section B
Q2:

General comments: A total of 173 students attempted Q2, representing over 81% of the students who registered with the course. The overall performance on Q2 is excellent, as more than a half of the 173 students have obtained above 70% of the marks.

Specific comments:

(a) This question was marked out of 5 and one mark for a correctly identified actor. More than a half of the students received a full mark for this question and the lowest mark given was 3. This shows that the students were generally able to identify the actors from a given scenario. A common mistake was that a small number of students did not know that the application database in the given scenario should be identified as an actor.

(b) This question was marked out of 8 and it requires the students to draw a use case diagram based on the given scenario. Only a couple of students received the full mark. Common mistakes were:
- **Use case notation was not used correctly.** A handful of students appeared to have no knowledge of this notation. A couple of students used the process flow diagram instead of the use case diagram.
- **Use cases were not correctly identified.** Most students missed at least one use case. Some students mixed use cases with low-level operations.
- **Database was not represented.** For the students who failed to identify the database as the actor in Q2-a), they would not be able to represent DB and its interactions with other actors in this question.
- **Use case diagram arrangement.** Some students still could not present a correct layout of a use case diagram taught in the lecture and practised in the lab, which required to arrange the human actors on the left, use cases in the middle and non-human actors on the right.

(c) This question was marked out of 7 and it requires the students to specify the Apply for Job use case. Although only a couple of the students received a full mark, most of the students obtained 5-6 marks. This shows that the students found it easier to specify a use case as the activities of the use case are closer to the operations at the programming level. Common mistakes were:
- Incorrect specification of the pre/post conditions.
- The activities in normal flow were incomplete, e.g., missing the submission operation.

Q3:

(a) The answers were good overall.

(b) The answers were more varied: the main challenge is modelling Class List. Class List has to be modelled explicitly in the domain and system classes, since this is what a lecturer will want to have. The simplest model is a class (that is associated with - belongs to - a course unit record) with a list of registered students. If modelled as an attribute, then it must be clear what this attribute is (it must be something that the lecturer can get hold of), who generates it (though not how). One tricky problem is that a class list really needs a status attribute to show whether it is complete, since registrations may not be complete when the lecturer asks for a class list. This is relevant to the sequence diagram for the ‘Get class list’ use case: the lecturer needs to check if the class list he gets is complete.