

UG Exam Performance Feedback

Second Year

2016/2017 Semester 1

COMP23111 Fundamentals of Databases

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Comments Q1 had an average percentage mark of 64, with 22.5 standard deviation. The most common problems with answers in Q1 were as follows.

In item (a) too many students used relational modelling terminology and not ER terminology as explicitly asked for. In item (a.i) was the failure of many students to characterize the key of an entity type is a set of attributes whose values are unique for each entity in the extent and then distinguish between strong and weak keys by the fact that the former lead to values that are globally unique while for the latter those are only locally unique. In item (a.ii), too many answers resorted to PK-FK accounts where an account of the introduction of an identifying relationship was being sought. Here, even the best answers often failed to describe all the properties of an identifying relationship.

In item (b), the most common source of errors was a basic failure to write relational-algebraic expressions.

In item (c), the most common source of error was to have in the SELECT clause something like a nesting of aggregation functions (e.g., SELECT MAX(COUNT(x))), which is not valid SQL. The answer required an outer query whose SELECT does the MAX of counts computed separately in its own subquery.

Q2 A question answered by all the students. Also not a hard question, combining bookwork and application of technique, and not requesting original thought. The average mark for this question was, roughly, 65%.

Q3 had an average percentage mark of 63, with 21.1 standard deviation. The most common problems with answers in Q3 were as follows:

In item (b.i), the vast majority were not able to draw a relational-algebraic operator tree. Leniency was applied if the answer was in expression form, but, even then, the general quality of the answers was disappointing. In item (b.ii), too many students made the mistake of thinking that 'FROM P, Q, R' means the same as 'FROM P NATURAL JOIN Q NATURAL JOIN R', which it does not. Another mistake was to provide a sequence of SQL queries whose outcome is supposed to compute the desired result but the answer asked for one SQL query, not a sequence thereof. In item (c.iii), in spite of explicit advice in the exam revision session to avoid answers that did not explicitly rely on course unit content and veered toward mere opinion or conjecture based on general knowledge or experience, few students heeded that advice.

Q4 Not a popular question, answered by a small fraction of the students. Also not a hard question, testing the ability to apply techniques learnt during the course to solve small problems. This question lacked any request for original thought, and yet, the overall average mark was of, roughly, 50%, with marks ranging between 85% and 5%.

This is probably a consequence of the poor attendance in lectures and examples classes during the period following the Reading Week, leaving most students unable to perform well in this part of the exam.
