

# COMP23111 Exam Performance Feedback

## AY-19-20

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### General Remarks

A total of 220 students sat the exam, with a mean mark of 69%.

There was 5 students with a mark below 40%, 2 of these being below 30%. Some of these students *may* be able to pass the unit with suitable coursework marks. There were 183 students who achieved first class marks of 70% or above in the exam.

Table 1 below gives an overview of the performance across questions.

Question		Marks	
		Mean	%
Online (Section A & B)		31.0 (32)	97
C	Q1	0.8 (2)	41
	Q2	1.1 (2)	55
	Q3	1.2 (3)	41
	Q4	1.7 (4)	43
D	Q1	1.9 (3)	73
	Q2	1.3 (2)	62
	Q3	1.5 (2)	73
	Q4	0.3 (3)	9
	Q5	1.4 (2)	68

Table 1: Performance Breakdown

Section A was completed online. The overall performance on these sections was very good, with a mean score of 31.0 (97%). This was to be expected, as the online section contained more questions focused on recall of material as opposed to analysis or application of concepts. Blackboard provides an Item Analysis, including an assessment of the Discrimination power of questions and the Difficulty of questions. Discrimination indicates how well a question differentiates between students who know the subject matter and those who don't. A question

is a good discriminator when students who answer the question correctly also do well on the test. The Difficulty value assesses how many students answered correctly.

Blackboard's analysis suggests that 26 questions were *good* and 13 were *fair* in terms of discrimination. There were 23 *easy* questions, 17 *medium* and 1 *hard* question. The *medium/hard* questions were spread throughout the exam.

## Section C

### Question 1 - Mean: 0.8 (41%)

Overall this question was not answered particularly well. Many students got confused between Logical Data Modelling and Logical Modelling. To achieve full marks you were correctly define logical data modelling and have some mentioning of entities and/or relationships. Marks were also given for mentioning the different data modelling techniques (EER & XML). An analogy used for this during the lectures was the Architects build plans.

### Question 2 - Mean 1.1 (55%)

For this question you were as to produce an SQL query to represent the given Relational Algebra. Most marks were lost for not using a *CROSS JOIN* within the query. Marks were awarded as follows. 1 mark for selecting all just from the Client table. 1 mark for a *CROSS JOIN* with the Orders table.

### Question 3 - Mean 1.2 (41%)

This question was answer ok by most. Marks were awarded if you mentioned that it is a procedural query language. The mentioning of the different types of symbols available and their names/categories (i.e. Projection and Set Theory) also gained a mark. It should have been mentioned that the operations are performed recursively. The inclusion of all three of these parts equated to full marks for this question.

### Question 4 - Mean: 1.7 (43%)

This question was also not particularly answered well. Many students guessed the wrong step in the Relation Mapping Algorithm. Step 3 is Binary 1:1 Relationship Mapping. Stating this alone gave 1 mark. There was then 1 mark available for each of the 3 approaches. Stating the full name for any of them gave the 1 mark available. Partial credit was given if the abbreviation (i.e. FKA, MRA or RRA) or a definition of an approach was provided.

## Section D

### Question 1 - Mean: 1.9 (73%)

The question was very well answered by the majority of students. There was some confusion by very few students, i.e that it related two tables, or that it was a multi-valued attribute, or something else (there were various incorrect answers to this question).

### Question 2 - Mean 1.3 (62%)

Most students demonstrated a good understanding of triggers, but some students failed to mention the association with a table. Some students also stated that triggers were applied to the SELECT statement.

### Question 3 - Mean 1.5 (73%)

The question was very well answered by most students, however, some students failed to mention that concurrency control was necessary in multi-user database management systems.

### Question 4 - Mean: 0.3 (9%)

This question was very poorly answered despite the model answer given in the additional reading section on Blackboard. Some students misunderstood the question and gave explanations of how the hard disk was structured. Most students did receive partial credit but only 0.09 received full credit for this question.

### Question 5 - Mean: 1.4 (68%)

Most students understood the importance of creating indexes. Whilst most students answered this entirely correct some students failed to mention that indexes were both more efficient and faster, with the majority of students that gained partial credit successfully identifying that indexes were quicker but failed to detail the efficiency savings.