

PGT Exam Performance Feedback 2014/2015 Semester 1

COMP60411 [Modelling data on the Web](#)

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Comments Please see the attached report.

COMP60411

Exam Performance Feedback 2016

This exam consists of 25 questions (with a total of 44 marks), of which

- 4 are short essays (total of 23 marks) to assess reading/writing skills related to XML schemas, and analytical skills, and
- 21 are MCQs to assess factual knowledge and understanding of the formalisms, properties, and concerns discussed in the course unit.

Item analysis shows that we had 5 easy questions, 15 medium, and 4 hard questions, and the 4 short essays are all among the medium ones. Item discrimination was good for 14 questions, fair for 8, and poor/unavailable for 3 (we consider these 3 and are happy that the poor discrimination was not due to a badly asked question). We consider this to be a good spread of difficulties.

Next, we comment in more detail on the four short essay questions:

Q 22: This was designed as an easy question, and students achieved on average 3.59/5, i.e., did really well. Some students struggled because they nested grammar rules, which led to rather unreadable statements. Other students didn't realise that the order of some child elements varied across the document, and then created a grammar that was too strict.

Q23: This was designed as a question of medium difficulty, and students achieved on average 3.65/6. Most students were able to discuss advantages of different schema languages and the drawbacks of a multitude of them. There were, however, a surprising number of students who seem to have revised for this exam using material from last years' exams which they (needlessly) applied here, despite the fact that they had not understood it well (e.g., leading to incorrect claims related to the uniqueness of PSVI).

Q24: Students achieved on average 3.41/6 marks. There was quite a bit of confusion around performance (of SQL vs Path or SPARQL). A second common misunderstanding relates to the question whether there are differences between the ability of SQL vs Path or SPARQL to handle images, videos, and even text. A third common misperception was that relational databases need to be normalised or cannot handle NULL values, or whether having lots of tables is, as such, a problem.

Q25: Students achieved on average only 2.91/6 marks - which may be due to the fact that this was the last question and students ran out of time. A second factor for this rather low performance is that many students clearly didn't remember what a polypersistence strategy was. Another confusion arose because students confused the *strategy* part in the question with situations where polypersistence is forced by external reasons (legacy or customer insistence). Finally, some students found it difficult to explain and discuss the

costs versus benefits of a polypersistent strategy.

Question	Question Type	Discrimination	Difficulty	Max Marks	Average Score	Std Dev	Std Error
12	True / False	N/A	100.00%	1	1	0	0
10	True / False	0.36	85.42%	1	0.86	0.36	0.06
5	True / False	0.26	85.42%	1	0.86	0.36	0.06
4	True / False	0.44	85.42%	1	0.86	0.36	0.06
13	True / False	0.32	83.34%	1	0.84	0.38	0.06
9	Multiple Choice	0.37	79.17%	1	0.8	0.42	0.06
2	Multiple Choice	0.53	79.17%	1	0.8	0.42	0.06
18	Multiple Choice	0.17	77.09%	1	0.78	0.43	0.07
8	Multiple Choice	0.3	77.09%	1	0.78	0.43	0.07
23	Essay	0.67	71.67%	5	3.59	1.37	0.2
21	Multiple Choice	0.48	70.84%	1	0.71	0.46	0.07
17	Multiple Choice	0.19	66.67%	1	0.67	0.48	0.07
6	True / False	0.29	66.67%	1	0.67	0.48	0.07

24	Essay	0.71	60.77%	6	3.65	0.87	0.13
16	Multiple Choice	0.55	58.34%	1	0.59	0.5	0.08
15	Multiple Choice	0.29	58.34%	1	0.59	0.5	0.08
25	Essay	0.64	52.26%	6	3.14	1.15	0.17
11	Multiple Choice	0.02	52.09%	1	0.53	0.51	0.08
26	Essay	0.77	48.44%	6	2.91	1.96	0.29
14	Multiple Choice	0.22	37.50%	1	0.38	0.49	0.08
1	Multiple Choice	0.33	37.50%	1	0.38	0.49	0.08
3	Multiple Choice	0.19	29.17%	1	0.3	0.46	0.07
20	Multiple Choice	0.58	27.09%	1	0.28	0.45	0.07
19	Multiple Choice	0.47	27.09%	1	0.28	0.45	0.07
7	True / False	-0.25	22.92%	1	0.23	0.43	0.07