UG Exam Performance Feedback
Third Year
2017/2018 Semester 1

COMP37111  Advanced Computer Graphics  Toby Howard
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Comments

Q1 A straightforward question which was mostly well-answered. The examples given were mostly those from the lectures and notes. It would have been nice to have seen a bit more original thought.

Q2 A “bookwork” question, but not very well-answered on the whole. Many people did not explain how the branching is implemented (as the question asks). So marks were lost here.

Q3 About 1/3 of the class had no idea what “duality” was in this context, despite it being a key idea introduced in COMP27112 as well as discussed in the course. Hard to understand how this basic concept seems to have passed some people by.

Q4 What I was looking for here was some reflection on the challenges of creating very large models using simple tools: challenges like scalability, data management, editability, consistency, or anything sensible. This specific question was not directly addressed in the lectures, but all the elements were. So I was looking for some synthesis here. About 1/2 the class said something sensible but many people did not provide any evidence of “thinking about it”.

Q5 Pretty well-answered (this is the ScanView-type model) but people lost marks by omitting important detail, such as the use of textures to give the client a model which looks like the real thing, but isn’t.

Q6 Most people did OK here, but again people commonly didn’t fully answer the question, especially the “discuss what constraints should be applied” section.

Q7 Quite a lot packed into this question, but the key elements are easy to describe. However there were few clear and well-described answers. More common were answers that mentioned keywords without explaining how the ideas fit together.

Q8 This is largely a bit of ‘bookwork, so answers tended to be bimodal -- you’d either do pretty well if you knew the definition, or get virtually nothing by just making stuff up.

Q9 This was generally well-answered, though several people didn’t spot the ‘create a video' part and then tied themselves up in knots trying to explain why raytracing (which tends not to be a real-time thing and was the obvious solution for dealing with the types of materials involved) was the right thing to use to create a real-time solution (which wasn’t needed). Some people chose radiosity and justified it reasonably well so still managed to get the marks. A few people went with volume rendering, which really isn’t a good fit for all for this particular application. Note that choosing radiosity here makes answering the later questions much harder (though not impossible -- you just end up tying yourself in a knot a second time), so always make sure you read ALL the questions before starting your answers.

Q10 Decent answers on the whole (marks were given regardless of whether your choice in the previous question were sensible). Marks were lost for vague or general answers where there was clearly no way of giving 4 distinct marks.

Q11 The most obvious solution here is probably HBV, and those that went with this were generally able to give a detailed description of how the model of the building could be represented in this structure and how this improved the rendering speed; BSP was also fine; Octree is maybe okay but pushing it a bit, and those that chose this struggled to justify their choice on the whole. A couple of people went for gridcell which doesn't make sense in this case and requires a really contorted explanation.

Q12 This is the most tricky question of all but there were still many creative solutions to the problem. Simply saying “you could combine approach X and approach Y” didn’t get marks though -- the question is clearly looking for more detail than that.
Exam Feedback
This feedback is based on the COMP37111 exam that took place in 2017/18.

This report is based on Blackboard Item analysis report that can be found in your course unit (Course Tools > Tests, Survey and Pools – right click on the name of the test/exam and select Item Analysis).

Difficulty
Average Exam score: 27.35 (68.37%) +/- SD 15.19%

Average Exam Time: 1 hr 41 min

Below is how Blackboard defines question difficulty.

Difficulty: The percentage of students who answered the question correctly. The difficulty percentage is listed along with its category: Easy (greater than 80%), Medium (30% to 80%), and Hard (less than 30%). Difficulty values can range from 0% to 100%, with a high percentage indicating that the question was easy. Questions in the easy or hard categories are flagged for review.

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<th>Easy Questions</th>
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You can identify specific Questions using the Item Analysis Tool in Blackboard.

Distribution of Marks

Exam Marks

Discrimination
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. Values can range from -1.0 to +1.0. Questions are
flagged for review if their discrimination value is less than 0.1 or is negative. Discrimination values can’t be calculated when the question’s difficulty score is 100% or when all students receive the same score on a question.

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