## COMP27112 Computer Graphics and Image Processing

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Comments Section A (DTM): see the separate pdf print out attached.

Section B (TLJH):

General comments on Questions 1 and 2: Many students did not draw the diagrams they were asked to provide, and therefore lost the marks available for those diagrams.

Diagrams were often far too small, scrappily-drawn, and not properly labelled.

In a dozen cases handwriting was so bad as to be almost illegible. In many more cases the handwriting was poor, which made it extremely difficult to understand what the answer was meant to be.

Section B - Question 1

Average 11.2/20 (56%), with STDDEV of 4.4.

This question was generally quite well answered.

Most people understood why we use 4x4 matrices.

Answers about "the duality of modelling and viewing" indicated either complete understanding, with good explanations, or apparently complete ignorance of the idea. There may be a correlation here with lecture attendance, because I addressed the concepts at length in a lecture.

The part of the question that was best answered was the final section -- rotation about an arbitrary 3D vector. However, in many cases the answer was written as a series of points, apparently memorised, with no evidence of true understanding of what was actually happening. A common situation was the reference to M and M^-1, with no explanation of their relationship.

The quality of the answers to the section on projections was extremely variable, which was surprising, since I would have thought the concepts would not have been met for the first time in COMP27112.

Section B - Question 2

Average 12.4/20 (62%) with STDDEV of 4.5.

Overall, quite well-answered, but on reflection thus question was perhaps a bit on the easy side.

It was disappointing that some people seemed unaware of what "scan conversion" was.

Almost everyone knew about the Z-buffer, and were able to sensibly comment on its precision problems.

The section on ambient/diffuse/specular reflection was largely answered either very tersely, with students just quoting the formulae with little or no narrative explanation -- or, very verbosely, giving too much un-asked-for information.

Several students ignored the part-structure of the question, and instead gave a complete derivation of the local illumination model, with no reference to what was actually asked in the question.

Most people were able to describe the Phong interpolation model and understood why its results are better than Gouraud.