EXAM
DH2320 Computer Graphics and Visualization
2011-12-19

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Aids: None

The exam consists of 9 questions. The number of points awarded for a correct answer is stated next to each question. The maximum score is 21. To pass the exam, you need at least 12 points.

Write legibly! Answers that I cannot read will receive 0 points! When explaining, try to be as concise and clear as possible! Answers that I cannot understand will receive 0 points! Feel free to use figures/sketches to complement your written explanations.

Good luck! /Marcus

Question 1 (2p): In computer program debugging, what is a *breakpoint*? Explain why breakpoints are useful for debugging!

Question 2 (2p): What is temporal aliasing? Explain why it arises!

Question 3 (2p): What is normal mapping? Explain how it works!

Question 4 (4p): One common algorithm/principle for removing hidden surfaces in real-time graphics is depth buffering (or depth testing/Z-buffering). Explain how this algorithm/principle works!

Question 5 (3p): What is the Phong reflection model? What is its three parts and what light reflections do they simulate?

Question 6 (1p): Describe one important principle for creating natural looking movement in animation

Question 7 (2p): Describe three different ways to visualize interval data and how these compare when estimating a correct value from the visualization.

Question 8 (2p): what is a diverging color map and what are the benefits of using it for visualization?

Question 9 (3p): Describe three ways of presenting information/data that corrupt and obstruct reasoning.