

CS325/FILM385AB Final Exam
April 15, 2014, 14:00 – 17:00, CL305
D. Hepting

This exam contributes 20 marks towards your final grade. This exam has 57 marks divided between 2 types of questions. I value quality over quantity but you should at the same time write enough to show me that you understand the concepts. You have 180 minutes to complete the exam, or about 3 minutes per mark. WRITE ALL YOUR ANSWERS IN THE EXAM BOOKLET. This is a closed book exam. You must maintain the confidentiality of your examination; do not provide any opportunity for others to copy any of your work. Electronic devices are NOT permitted during the exam.

Part 1. (Choose 10 questions x 3 marks = 30 marks). For each question chosen, be sure to define the concept(s) in your answer and give 1 or more examples. For example, an answer to a question about X might have the following form: "X, which refers to ..., is important because of An example of the importance of X is ...".

1. Why is character encoding important on websites?
2. Why are colour gamuts important to consider when moving from display to print?
3. When might subsampling be used?
4. How does Scratch (not) democratize multimedia?
5. How are image and audio dithering similar?
6. What is the reason for aliasing in images?
7. What happens by changing the amount of storage per sample, objectively and perceptually?
8. Explain the difference between progressive scan and interlaced.
9. Why take 44100 samples per second for CD quality audio?
10. How can compression be achieved through use of a YUV/YCbCr colour space?
11. What is a pixel?
12. Why might some people prefer to work with HSV than RGB when selecting colours?

Part 2. (Choose 3 of 4 questions x 9 marks each = 27 marks). These questions are longer versions of those in Part 1, because they are broader in scope. As above, make sure that you define the concepts that you use and give examples as appropriate. Also, identify related issues as appropriate. You should be able to write a page side about each of these. Please take some time to plan your answers.

1. We have discussed the terms multimedia and unimedia over the semester. Which term do you think better describes what we have explored and why?
2. Place SVG in the context of all of the other image formats that we have discussed and explain its pros and cons.
3. Discuss the importance of sampling and quantization in creating digital media. Does discretization of continuous phenomenon only occur through digitization?
4. Explain the relationship between Unicode and UTF-8.