CS 205 Midterm Exam: D. Hepting March 1, 2017, 13:30–14:20, CL 408

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. Please turn off and put away all cell phones and other electronic devices during the exam period.

ANSWER ALL QUESTIONS. All answers must be written on this exam in the space provided. You have 50 minutes to complete the exam. Please plan your answers, favour quality over quantity, do not exceed the space provided, and do your best to write legibly. QUESTIONS ARE ON BOTH SIDES OF THE PAPER. YOU MAY USE THE BLANK SPACE AT THE END (AND ELSEWHERE) FOR ROUGH WORK.

This exam contributes 10 percent towards your final grade. Answer 2 questions from PART 1 for 5 marks and answer 3 questions from PART 2 for 15 marks: 20 marks total. Good luck.

Name (printed):	 	
Student Number:	 	
Signature:	 	

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PART 1: Answer 2 of 3 (2.5 marks each x = 5 marks)

Q1-1. What is the difference between additive and subtractive colour models? Identify an example of each.

Q1-2 What is a pixel?

Q1-3. How was entropy defined in class? As a measure of what?

PART 2: Answer 3 of 5 (5 marks each x = 15 marks)

Q2-1. If you were asked to recommend an encoding for multilingual documents for Canadians (text in English, French, various First Nations' languages, various immigrants' languages), what would you suggest if the goal was to create the smallest file possible? What things would you consider?

Q2-2. If you have a relatively small fixed size of memory for a graphics display, what tradeoffs would you consider in order to provide a) some colour? b) full colour?

Initials (EACH PAGE): _____

Q2-3. Is a vector graphics format always preferred? Over what? Why or why not?

Q2-4. What is aliasing and how can it handled?

Q2-5. What is histogram equalization and why is it useful?

(SPACE FOR ROUGH WORK)