FACULTAT D'INFORMÀTICA DE BARCELONA

Grading:

Subject: ***Data and Image Compression***

Day: 17 June 2014

L & P exam

Student:

Sheet of

1. Given the symbol-frequency distribution

$$\{(s, 30), (a, 5), (l, 30), (d, 5), (n, 15), (y, 20)\}$$

compute its Huffman encoding.

Note. Work on a piece of paper, draw a diagram showing the different steps, and explain your reasoning in detail.

2. Given the funtion

$$9(2\cos(2\pi x)^2 - \sin(3\pi x)^4)e^{-x^2/11}$$

on the interval $[0, 3.5]$, write a python program that computes its 2^{10} equal space sampling f, its third Haar transform g and its third Daub6 transform h. The program should also draw separate plots of f, g and h.

Note. Send the corresponding py file. Include appropriate comments.

The displayed data in 1 and 2 were diferent for each student.