

## CEG 4311 Lab2 Marking scheme

Fall 2007

<b>Question 1</b>		
<b>Question 1</b> <b>(25p)</b>	<ul style="list-style-type: none"> <li>• Draw Block diagram of your algorithm</li> <li>• Theoretical and practical explanation for each block</li> <li>• Generated Matlab code</li> <li>• Display and relevant frequency response</li> <li>• Display any relevant power spectra</li> <li>• Display decoded hidden image</li> <li>• Answer the two questions given</li> </ul>	<p>(5p)</p> <p>(10p)</p> <p>(5p)</p> <p>(1p)</p> <p>(1p)</p> <p>(1p)</p> <p>(2p)</p>
<b>Question 2</b>		
<b>Part a</b> <b>(6p)</b>	<ul style="list-style-type: none"> <li>• read</li> <li>• RGB components</li> <li>• Sub-sampling</li> <li>• Adding components</li> <li>• Display resulting CFA image</li> <li>• Write into file</li> </ul>	<p>(1p)</p> <p>(1p)</p> <p>(1p)</p> <p>(1p)</p> <p>(1p)</p> <p>(1p)</p>
<b>Part b</b> <b>(7p)</b>	<ul style="list-style-type: none"> <li>• Initialize RGB components</li> <li>• Interpolate RGB components</li> <li>• compute, view and compare each original, sub-sampled and interpolated component</li> <li>• plot and commentary for R and G components</li> </ul>	<p>(1p)</p> <p>(2p)</p> <p>(2p)</p> <p>(2p)</p>
<b>Part c</b> <b>(5p)</b>	<ul style="list-style-type: none"> <li>• combine components</li> <li>• comment on the quality of the reconstructed image</li> <li>• same for Atrium image</li> </ul>	<p>(1p)</p> <p>(2p)</p> <p>(2p)</p>

<b>Part d</b> <b>(4p)</b>	<ul style="list-style-type: none"><li>• prefilter</li><li>• answer two given questions</li></ul>	(2p) (2p)
<b>Part e</b> <b>(3p)</b>	<ul style="list-style-type: none"><li>• compare with adaptive frequency domain</li><li>• note at least 5 differences</li></ul>	(1p) (2p)
<b>Total</b> <b>(50)</b>		