Pop Quiz 3 [10 mins]

Name: 

Student ID: 

1. [3] Match following images with corresponding Fourier transform

<table>
<thead>
<tr>
<th>Image 1</th>
<th>Image 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="fourier1.png" alt="Fourier Transform 1" /></td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="fourier2.png" alt="Fourier Transform 2" /></td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="fourier3.png" alt="Fourier Transform 3" /></td>
</tr>
</tbody>
</table>

2. [3] The Harris corner detector is invariant to which of the following transformations
   i. Scaling
   ii. Translation
   iii. Rotation
   i. first derivative is maximum
   ii. Second derivative is maximum
   iii. First derivative is zero
   iv. Second derivative is zero

4. [2] What are the four steps of Canny edge detector?
   Suppress noise using low pass filtering
   Computer gradient magnitude and direction image
   Apply non-maxima suppression
   Use hysteresis and connectivity analysis