1. Given this mapping of buttons to lights, order them from best to worst, and note why.

(a) 

(b) 

(c) 

(d) 

2. Expand any 5 of the following acronyms:
   (more than 5 correct = 5, wrong ones count negative)
   
   HCI  PQ4R
   SDT  SR
   LTM  GEMS
   JND  CHI
   CSCW  NTSB

3. Name one result from information scent that has implications for interface design.

4. Comment on Facebook’s design with respect to each aspect of the ABCS.
5. One version of Fitts’ Law is \( \text{Time} = 70 \text{ ms} * \log_2 (\text{target distance} / \text{target size} + 0.5) \). Note three ways with hardware or software to make menubars faster to use.

6. Note four systems where anthropometrics makes a difference.

7. Fill in the four empty table cells related to Signal Detection Theory. Explain what they mean with respect to search engine use.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signal Present</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Note three depth cues. Give one application of this aspect of vision for interface design.
9. How can you help direct the user’s attention on a search engine’s output using aspects of visual perception?

10. Explain declarative and procedural memory. Note how their aspects influence interface design.

11. Why are multiple-choice exams seen as easier than short answer exams?

12. Using terms from ACT-R (shown below), describe how distractions can disrupt learning.
13. Note four ways that the book presents as ways to make reading faster and easier for users.

14. Name one bias in reasoning and how to help reduce this bias in an interface.

15. Describe an ill-structured problem, or describe how to make an ill-structured problem.

16. Name two mechanisms in humans that give rise to errors.
17. Revise this bit of report, noting up to 4 mistakes and numbering them.

The users’ performance got much worse with time as shown in Table 1.

![Graph showing learning curve]

Table 1. Percent correct for the fifth smartest subject, Robert.

18. Describe and draw the learning curve.

19. What role can search logs play in web site design?

20. What is currently the most important aspect of user behavior to consider when developing smart phone applications, and why?