

# **Engenharia Informática (FCT/UNL)**

2007/2008

## **Interacção Pessoa-Máquina**

### **Exam**

January 28, 2008

Duration: 2h

- 1) Explain the importance of task analysis as a first step in the user-centered design process.
- 2) Briefly describe three techniques that can be used to collect information during the task analysis.
- 3) In the scope of interface design, comment the sentence: "Not all the knowledge needed for a specific conduct has to be in the head."
- 4) Explain the "Interaction Framework" proposed by Abowd & Beale.
- 5) Identify the main reasons that make the paper prototypes appropriate during the early stages of interface design.
- 6) Which of the following problems are least likely to be revealed by testing a paper prototype?
  - a) The help menu is not in the proper position.
  - b) The users do not know the term "algorithm".
  - c) The toolbar buttons are too small.
  - d) The system does not provide a specific essential functionality.
- 7) Describe the formal process of heuristic evaluation (including the consolidation of the evaluations of the several experts).
- 8) The use of metaphors can facilitate the communication of the conceptual model. However, the use of metaphors may also cause some problems. Indicate which ones and justify.

9) Command-based interfaces violate some of the usability heuristics.

- Indicate the two most relevant ones and justify your answer.
- Identify the advantages of this interaction style.

10) Identify the graphic design problems in the following Web page.

The screenshot shows a Microsoft Internet Explorer window titled "IPM 2004/2005 - Microsoft Internet Explorer". The address bar shows "http://www.notopublish.com". The page content includes a "Bibliografia" section with a list of references, a "Classificações" table, and a "Trabalho práticos" section with links to "Trabalho 1", "Trabalho 2", and "Trabalho 3". The page has an orange background. Arrows point to various design elements with color labels: "Blue" points to the browser window title bar, "Red" points to the "Trabalho práticos" link, "Purple" points to the "Human-Computer Interaction" link, "Green" points to the "Consultar soluções aqui" link, "Yellow" points to the "Human-Computer Interaction" link, and "Orange background" points to the main content area. The "Classificações" table is as follows:

Grupo	Nota
85628, 78575, 94885	14
74661, 94116, 54653	15
65899, 88748, 97467	9
68345, 79243, 91984	15
85538, 76435,	12
77441, 69364, 89176	10

Below the table, it says "Próxima deadline: 10 de Dezembro". The "Trabalho práticos" section includes links to "Trabalho 1", "Trabalho 2", and "Trabalho 3", and a "Horários" link. The "Consultar soluções aqui" link is highlighted in green.

The remaining text is in black.

**Good work!**