

Human computer interaction exam questions (2017 fall semester)

- 1) Explain what skills are involved in Human computer interaction.
- 2) Explain the main concerns of Human computer interaction.
- 3) Why human Computer interaction is important in software design?
- 4) Explain what is involved analyzing product's context of use.
- 5) Which people (activity | context | technology) characteristics are analyzing the user needs?
- 6) How data can be recorded during the data gathering sessions with stakeholders?
- 7) How interviews are conducted?
- 8) What kind of questions are used in usability questionnaires?
- 9) How observations results are conducted?
- 10) What is a good question in interview and questionnaire?
- 11) Core characteristics of user-centered design
- 12) Why important is involving stakeholders to design? Stakeholder types.
- 13) Explain the user experience levels.
- 14) Definition of usability according to ISO 9241. Provide the examples
- 15) Explain usability principles with examples.
- 16) Business and usability objectives
- 17) Explain how task analysis is performed.
- 18) Explain how task analysis performed using storyboards (scenarios | use cases | hierarchical task analysis).
- 19) What are the differences between mockups and prototypes?
- 20) What is presented on mood board? Why is it needed?
- 21) What is information architecture?
- 22) Top-down development of information architecture
- 23) Bottom-up development of information architecture
- 24) The main categories of usability design rules and their relation with user experience levels
- 25) Design principles for learnability (flexibility | robustness)
- 26) Nielsen's heuristics
- 27) Analyze heuristics evaluation: the aim, in which project phases can be applied, who is involved, what is prepared for the evaluation, what outcomes are obtained
- 28) Explain Norman's 4 stages of interaction.
- 29) Analyze Cognitive walkthrough: on what usability attribute is focused, when can be applied, who is involved in evaluation, what outcomes can be obtained.
- 30) Page fold and attention in interface design
- 31) Usage of colors to attract user's attention
- 32) Gestalt principles
- 33) Interactive information visualization: purpose, steps
- 34) Analyze usability testing: the aim, in which development phases can be applied, who is involved, what is prepared for the evaluation, what outcomes can be obtained.
- 35) How usability testing is performed?

- 36) Analyze GOMS/KLM evaluation: the aim, in which project phases can be applied, who is involved, what is prepared for the evaluation, what outcomes are obtained.

37) What predicts Fitts law? Design implications

38) What predicts Hick's law? Design implications

39) What predicts KLM evaluation? The purpose and procedure

40) Practical questions like this:

You have the mockup and want to assess whether your design is <specific usability attribute> (for example, ease to learn, etc.). What evaluation method would you choose and why?