

## Human computer interaction exam questions (2017 spring 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) Core characteristics of user-centered design
- 7) Why is important involve stakeholders to design?
- 8) Explain the user experience levels.
- 9) Explain how product stakeholders are analyzed.
- 10) Definition of usability according to ISO 9241. Provide the examples
- 11) Explain usability principles with examples.
- 12) Business and usability objectives
- 13) Explain how task analysis is performed.
- 14) Explain how task analysis performed using storyboards (scenarios | use cases | hierarchical task analysis).
- 15) What are the differences between mockups and prototypes?
- 16) What is presented on mood board? Why is it needed?
- 17) What is information architecture?
- 18) Top-down development of information architecture
- 19) Bottom-up development of information architecture
- 20) Deliverables of the information architecture design
- 21) The main categories of usability design rules and their relation with user experience levels
- 22) Principles of learnability (flexibility | robustness)
- 23) Nielsen's heuristics
- 24) 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
- 25) Explain 4 stages of interaction.
- 26) Analyze Cognitive walkthrough: what usability property is focused, in which project phases can be applied, who is involved, what is prepared for the evaluation, what outcomes are obtained.
- 27) How cognitive walkthrough is conducted?
- 28) Page fold and attention in interface design
- 29) Usage of colors attracting attention
- 30) Gestalt principles: how they help to build interfaces
- 31) User interaction steps designing interactive visualizations
- 32) Analyze usability testing method: the aim, in which project phases can be applied, who is involved, what is prepared for the evaluation, what outcomes are obtained.
- 33) How usability testing is performed?
- 34) Explain parts of the usability test report.
- 35) How data can be recorded during the data gathering sessions with stakeholders?
- 36) How interviews are conducted?
- 37) What kind of questions are used in usability questionnaires?
- 38) How observations results are conducted?
- 39) What is a good question in interview and questionnaire?

- 40) 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.
- 41) What is predicted using Fitts law?
- 42) What is predicted using Hick's law?
- 43) What is predicted using KLM evaluation?
- 44) You have the mockup and want to learn whether your design is <specific usability attribute> (for example, ease to learn, etc.). What evaluation method would you choose and why?