Question 1: Name and explain three spectrums of research methods

Question 2: Name 4 types of interviews as research methods

Question 3: What is the difference between surface and content attention?
Field

Laboratory

Quantitative
- Fixed & measurable reality
- Analyzed numerically and statistically

Qualitative
- Dynamic & descriptive reality
- Analyzed by themes

Field
- Natural Environment
- Uncontrolled

Lab
- Artificial Environment
- Well Controlled

Behavioural
- What people do

Attitudinal
- What people think / feel
Question 1:
1.1 Define the concept of personas
1.2 Describe the process of creating personas
Question 5:
Define the concept of ubiquitous computing. Provide examples and explain why your example is considered to be ubiquitous computing.
Question 6:
Name and explain at least 3 principles of ethics in working with human subjects
Your Users

Ethics

Principles:

- Respect for human dignity
- Respect for free and informed consent
- Respect for vulnerable persons
- Respect for privacy and confidentiality
- Respect for justice and inclusiveness
- Balancing harms and benefits
- Minimizing harm
- Maximizing benefits

Research Ethics Board (REB) at Waterloo can:

- Approve, reject, propose changes, or terminate any work with human subjects by members of the university. This includes you.
- REB consists of five members (both men and women)
  - One member knowledgeable in ethics
  - Two members have expertise in fields covered by REB
  - One member knowledgeable in biomedical law
  - One member from outside university
- Goal is breadth – want a balanced perspective on projects being examined
Question 7:
For each described situation choose what type of methods would suite the research goal the best - lab or field type of methods. Explain your reasoning. Give an example of a method you would use. Design the study and describe the process.

7.1 You want to design a new product to increase efficiency of providing information to airport visitors regarding airport services.

7.2 You are designing a news website. You want to understand what is the best way to organize website menus so that users can easily find information of interest.
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Question 9:
Describe the difference between system 1 and system 2 thinking
Question 10:
Name and describe 4 types of observation methods. For each type of observations name at least 1 advantage and 1 disadvantage
Understand Your Users: Exploratory Studies

Naturalistic

Controlled

Observations

Non-Participatory

Passive Participation

Active Participation

Complete Participation
Question 11: Who and when showed NLS demo?
History

NLS - oN-Line System - developed by Douglas Engelbart and his colleagues at the Augmentation Research Center, SRI

First demonstrated December 19, 1968 at the Fall Joint Computer Conference, San Francisco.
Was called “The mother of all demos”

“We were not just building a tool, we were designing an entire system for working with knowledge.” Douglas Engelbart

NLS demo (1968)  Image source: UXPlus
User Centered Design in Computer Systems

History

- Waterfall Model
- GUI and WIMP
- Agile Development

HFE and Ergonomics

- Socio-Technical Systems Design
- Cognitive Psychology
- Cooperative Design
- Interaction Design
Question 12:
Name at least 2 strategies to lower cognitive load related to choice making; for each strategy give an example of how you would use it in a specific design.
Translating Needs Into Functionalities

Cognitive load

Steps
- Least amount of work possible
- Homogeneous
- People can’t multitask!
- Break error-prone tasks into smaller steps.

Choices
- Clear differences
- Limit number of choices
- Support with information

Information
- Progressive disclosure
- Provide examples
- Make it easy to scan
- Presentation matters (hard to read = hard to do)
Question 16:
On which of the work models would you best capture of the following piece of information? Indicate the name of the single best model you would use to capture the information. Then sketch the model containing the information indicated in the query.

You are designing a menu planning application for catering chefs. One catering chef uses a large whiteboard in her kitchen to cost menus. The whiteboard is divided into four or five areas with a whiteboard marker. In each area, you see post-it notes with food items and costs. At the bottom of each area is a sample menu with a dollar figure.
Question 17:

Match terms and names by drawing a line:

<table>
<thead>
<tr>
<th>Term</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCW</td>
<td>Alan Cooper</td>
</tr>
<tr>
<td>Gamification</td>
<td>Irene Greif</td>
</tr>
<tr>
<td>User Personas</td>
<td>John Kelley</td>
</tr>
<tr>
<td>Waterfall model</td>
<td>Nick Pelling</td>
</tr>
<tr>
<td>Wizard of Oz technique</td>
<td>Herbert D. Benington</td>
</tr>
</tbody>
</table>