

IQRA National University, Peshawar

Department of Computer Science

Fall Semester / Examination, Date: 26th June, 2020

Final – Semester Examination

Instructor: Mr. Shahab Ul Islam

Total Marks: 50 Timing: 12:00 PM - 06:00 PM



HUMAN COMPUTER INTERACTION

Instructions:

- All questions are compulsory.
- Marks of each question are mentioned with it.
- **Marks will be given as per the DEPTH of the answer, not LENGTH. (Kindly don't write lengthy stories, just to the point)**
- No *Out sourcing* please (Save that to IT Companies). ○ For this paper, you'll not be required to borrow anything from anyone.
- **Id =13158 Name saqib khan**

Question 1:

(10)

Consider the chair given below. Your Employees want to use it as a computer chair. Your task is to write any As HCI Specialist, your job is point out any Five issues in the design of this chair.

ANS:

1. No support handle
2. Not comfortable
3. Cannot revolve
4. Back support not preferable
5. Cannot move



Question 2:

(06)

What is Paradigm, and what do you mean by paradigm shift?

ANS:

Predominant theoretical frameworks or scientific world views

For example aristolelian , Newetonian,einstinian relativistic paradigm in physics

Understanding hci history is largely about understanding a series of paradigm shifts

Not all listed here are necessarily paradigm shifts but are at least candidates

History will judge which are true shifts.

A paradigm shift occurs when one paradigm theory is replaced by another

For example: Newtonian physics (which held time and space to be the same everywhere, for all observers) giving way to Einsteinian physics (which holds time and space to be relative to the observer's frame of reference)

Batch

Time sharing

Networking

Graphical display

Microprocessor

Question3:

(06)

Explain Design Rationale. Write and explain the types of design rationale.

ANS:

Design rationale is information that explains why a computer system is the way it is.

Rationale has to do with logical explanations and reasons

- Discussions, debates, negotiations
- Reasons for features
- Reasons against features
- Weighing of tradeoffs

Benefits of design rationale

Communication throughout life cycle

Reuse of design knowledge across products

Enforces design discipline

Presents arguments for design trade-offs

Organizes potentially large design space

Capturing contextual information

Type of design rationale

Process-oriented:

Preserves order of deliberation and decision-making.

Structure-oriented:

Emphasizes post hoc structuring of considered design alternatives.

Two examples:

Issue-based information system (IBIS)

Design space analysis

Question 4:

(10)

Find the web pages that illustrate the principle of consistency. You must provide on good and one bad example of consistency. You must provide the screen shot of web pages along with URL and the written explanation justifying your good and bad example in your answer. To provide the relevant examples browse the internet.

ANS:

Bad Example of Consistency

Explanation:

This is the My Xfinity page of the Xfinity website. All the sections examined above in the picture have very different colors, layouts and different font styles. These differences make it confusing for the user and it feels like it is not a single website but a different websites.

Good Example of Consistency:

Explanation:

In the Apple website they place their logo on the top left and the search bar on the top right of their website. This forms the consistency in their layout which helps the users feel less dis oriented when they browse a new and unfamiliar web site.

Question 5:

(08)

Write the Shneiderman's 8 Golden Rules.

ANS:

Strive for Consistency.

- Cater to Universal Usability.
- Offer Informative feedback.
- Design Dialogs to yield closure.
- Prevent Errors.
- Permit easy reversal of actions.
- Support internal locus of control.

- Reduce short term memory load

Question 6:

(10)

You are familiar with internet explorer. Explain any five usability goals in terms of internet explorer. Justify each goal with example

ANS:

1. Easy to learn:

Internet explorer was the first browser that we grew up using. In it's early days, it was simple and user would easily get going with it. If the user couldn't absorb all the information about how it is operated, users would simply just stop using it.

Easy learning also helps users when the browser is releasing new updates

. For example: The trash can icon in the browser refers to the real word trash can so the user gets an idea that this means to delete

2. Efficient:

Internet explorer in my opinion is efficient amongst other browsers, because it was the first browser user engaged with. Efficiency regarding using internet explorer means that user gets the most accuracy while completing particular task.

For example: If the buttons are labelled carefully users gets an idea if what he should do next

3. Effective :

Internet explorer have a high degree of effective browsing under which users can browse the internet. Effectiveness means that the product have to support the end client while the end client is performing tasks. For example: while filling cnic field in a form, there is usually the complete format given and it is stated either to insert dash or write it without dash

4. Availability:

Internet explorer is always available and accessible if you have an active internet connection. If internet explorer is always busy or the server is down it can possibly loose a number of users. Availability makes the browser to attract new users and maintain the current users. For example: Users shifted from daily motion to YouTube because their servers were always busy

5. Clarity:

If the browser is crystal clear, users will easily get what they have been looking for. If it confuses the users by showing inappropriate ads and pop ups, user will not

get what they were searching for. Internet explorer is friendly browser and it leaves its user satisfied. A clear design can be attained if it is simple, familiar and have good architecture. For example: Wikipedia is very clear regarding showing information with no ads and to the point text.