

# Final Term Paper

## HUMAN COMPUTER INTERACTION

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DATE : 26<sup>TH</sup> JUNE 2020

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## Question no 1

**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) Firstly the chair is without foam and there is no arm rest for relaxing.

2) The chair is out of spring for relaxing purpose if he want to get back so the chairs is stiffed

3) The is standing still it cannot move in 360 degree angle.

4) There are no wheels for the movement

5) Chair is out of shock absorder it has no pedal for the movement in upward and downward direction

## **Question no 2**

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

Ans) Paradigms are generally defined as a framework that has unwritten rules and that directs actions.

Similarly its is defined as "**A set of rules and regulations that establishes or defines boundaries and tells you how to behave inside those boundaries**"

### **Paradigm shift:**

A paradigm shift occurs when one paradigm loses its influence and another takes over. It can be happens within a wide variety of contexts. They often happen when new technology is introduced that radically alters the production process of goods or service.

## **Question no 3**

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

Ans) **Design Rationale**

A design rationale is an explicit documentation of the reasons behind decisions made when designing a system or artifact.

"Design rationale means statements of reasoning underlying the design process that explain, derive, and justify design decisions"

### **Types**

There are 5 types they are explained below;

#### **Argumentation based**

The design rationale is primarily used to represent the arguments that define a design.

#### **History-based**

The rationale consists of the design history. The sequence of events that occurred while performing the design. This information can be stored in many forms.

#### **Device-based**

A model of the device itself is used to both obtain and present rationale. The explanations of the design would be produced by using the model to simulate the behavior of the device.

### **Process-based**

The DR capture is integrated into the design process itself which guides the format of the rationale. The design description is modified only by changes to and refinements of the design objectives.

### **Active document-based**

The DR is pre-generated and stored in the system. In these systems, the designer creates the design and the DR system generates the rationale for it is based on the system's stored knowledge.

# Question no 4

**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 ) URL:** <https://twoway-radioshop.co.uk/motorola-xt660d-pmr446-digital-portable-radio>

The screenshot shows the TwoWay Radio Shop website. The header includes the currency (GBP - British Pound), a navigation menu, and a search bar. Below the header, there are four promotional banners: 'KEEP CONNECTED Order Yours Today!', 'MULTIPLE PAYMENT OPTIONS SagePay/Amazon/PayPal', 'FREE UK DELIVERY ON Orders over £60 Ex Vat', and 'ORDER BEFORE 15.00 Next Working Day Delivery'. The main content area features a product listing for the Motorola XT660d PMR446 Digital Portable Radio. The product image is accompanied by a '-27%' discount tag. The price is listed as £132.00, with a crossed-out price of £180.00. The product is marked as 'IN STOCK' with SKU# RED0006BDSAA. There is also a 'Notify me when the price drops' link and a Windows activation notice.

The **good** thing is every option is clearly shown and highlighted with colours and fonts are good.

The **bad** thing you cannot buy without credit card and the shopping criteria is tough than other shopping sites

## **Question no 5**

**Write the Shneiderman's 8 Golden Rules.**

Ans ) **Shneiderman's 8 Golden Rules.**

### **1 ) Strive for consistency.**

Consistent sequences of actions should be required in similar situations; identical terminology should be used in prompts, menus, and help screens; and consistent commands should be employed throughout.

### **2 ) Enable frequent users to use shortcuts.**

As the frequency of use increases, so do the user's desires to reduce the number of interactions and to increase the pace of interaction. Abbreviations, function keys, hidden commands, and macro facilities are very helpful to an expert user.

### **3 ) Offer informative feedback.**

For every operator action, there should be some system feedback. For frequent and minor actions, the response can be modest, while for infrequent and major actions, the response should be more substantial.

### **4 ) Design dialog to yield closure.**

Sequences of actions should be organized into groups with a beginning, middle, and end. The informative feedback at the completion of a group of actions gives the operators the satisfaction of accomplishment, a sense of relief, the signal to drop contingency plans and options from their minds, and an indication that the way is clear to prepare for the next group of actions.

### **5 ) Offer simple error handling.**

As much as possible, design the system so the user cannot make a serious error. If an error is made, the system should be able to detect the error and offer simple, comprehensible mechanisms for handling the error.

### **6 ) Permit easy reversal of actions.**

This feature relieves anxiety, since the user knows that errors can be undone; it thus encourages exploration of unfamiliar options. The units of reversibility may be a single action, a data entry, or a complete group of actions.

### **7 ) Support internal locus of control.**

Experienced operators strongly desire the sense that they are in charge of the system and that the system responds to their actions. Design the system to make users the initiators of actions rather than the responders.

### **8 ) Reduce short-term memory load.**

The limitation of human information processing in short-term memory requires that displays be kept simple, multiple page displays be consolidated, window-motion frequency be reduced, and sufficient training time be allotted for codes, mnemonics, and sequences of actions.

## Question no 6

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

**Ans )** Following are usability goals in terms of internet explorer they are highlighted below;

### **Effectiveness**

In this goal it is about accuracy. Internet explorer is very highly secured and effective.

### **Efficiency**

We can complete our task without errors and with highly efficiency

### **Safety**

It is much safer because of high level protocols and high management of data. It has high class security.

### **Utility**

It is much useful because it is built-in browser higher version are much better than the old ones

### **Learnability**

It has high rate of learning it can provide all the information which is needed