**Task 10.1: Review Questions**

**1. What is defined by human-computer interaction (HCI)?**

Human-Computer Interaction (HCI) is the study and design of the interaction between people (users) and computers. It focuses on understanding how users interact with computer systems and how these systems can be designed to be user-friendly, efficient, and effective.

**2. What is a task in HCI?**

A task in HCI refers to a specific action or set of actions that a user performs to achieve a goal using a computer system. Tasks can vary in complexity and may include simple actions like clicking a button or more complex processes such as completing an online form or conducting a search

**3. What is performance?**

Performance in HCI refers to how effectively and efficiently a user can complete tasks using a computer system. It can be measured in terms of speed, accuracy, and satisfaction. Performance metrics help evaluate the usability of an interface.

**4. What is usability?**

Usability is a measure of how easy and satisfying a system is to use. It encompasses various attributes, including learnability, efficiency, memorability, error frequency, and user satisfaction. High usability means that users can achieve their goals quickly and without frustration, making it a critical consideration in interface design.

**5. Define natural-language interface. What is the major drawback of these interfaces?**

A natural-language interface is an interface that allows users to communicate with a computer system using ordinary language like spoken or typed words.

**6. List different types of interfaces and explain each.Graphical User Interface (GUI):** Relies on objects such as windows, icons and buttons to permit the humans to interact with the system.

**Command-Line Interface (CLI):** Uses typable commands meaning the user has to key in commands every time they want to interact with the system, they have more control but often they are technically more complex.

**Touch Interface:** Built to be used with a touch screen thus one can interact with it through touch by tapping or swiping among others.

**Voice User Interface (VUI):** Provides an interface through which users issue commands verbally thus can easily operate without holding anything.

**7. Define what is meant by Question-and-Answer Interfaces? To what kind of users are**

**they best suited?**Question-and-Answer Interfaces are type of user interfaces where users interact with the computer by responding to series of questions and prompts.

This user interface is most suited for Beginners or casual users who may not be very familiar with the system.

**8. Describe how users use onscreen menus?**Users interact with onscreen menus by selecting options displayed on the screen. They can navigate through hierarchical menus, choosing submenus or options by clicking or tapping with a mouse, touchscreen, or keyboard. Onscreen menus provide a structured way to access various functions or features, helping users locate desired actions efficiently.

**9. Describe a problem that can occur if a designer uses nonstandard gestures to create an interface for smartphones or tablets.**

Using nonstandard gestures can lead to user confusion and frustration. If gestures differ from familiar patterns (like pinch to zoom or swipe), users may struggle to learn or remember them. This can result in errors, decreased usability, and overall dissatisfaction with the interface, as users may not achieve their intended actions effectively.

**10. Describe what a mashup is.**

A mashup is a web application that combines data, functionality, or services from multiple sources to create a new application or service. Mashups leverage APIs (Application Programming Interfaces) to integrate different data sets or features, often resulting in innovative and interactive user experiences. They are commonly used in applications like map services that combine geographical data with user-generated content.

**Task 10.2: Problems**

1. **Usability of items shown**

**a. The Tea Cup:**

The tea cup shown in the image has an unusual and impractical design. The wavy, uneven edges around the rim make it difficult to drink from, as liquid could spill unpredictably. This design compromises the basic usability of a tea cup, which is supposed to allow easy, controlled sipping. While the aesthetic may be artistic or playful, it negatively impacts the primary function of the item. Usability in this case is poor because the design interferes with the core function of holding and drinking liquids safely.

**b. The Mobile Phone:**

This mobile phone, typical of the 1980s, has a large, bulky design with a physical keypad and antenna. Compared to modern phones, its usability is limited. It was harder to carry and less user-friendly due to its size and weight. Additionally, it lacked the multi-functionality of today’s smartphones (such as internet browsing or apps). However, at the time, it was a breakthrough in technology, offering wireless communication. Usability was relatively good for making calls, but the size and limited functionality are drawbacks from a modern perspective.

1. **Designing a nested menus interface for a check-in and checkout hotel reservation system that can be used internationally.**
2. **Main menu**

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HOTEL RESERVATION SYSTEM

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Main Menu

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1. Check-In

2. Check-Out

3. Room Services

4. Hotel Information

5. Language Selection

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Please enter the number of your selection:

1. **Sub menus(the nested menus from the main menu)**
2. Check in menu

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CHECK-IN MENU

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1. New Reservation

2. Modify Reservation

3. View Reservation

4. Cancel Reservation

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Please enter the number of your selection:

1. Checkout menu

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CHECK-OUT MENU

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1. Final Bill
2. Print Bill
3. Pay Options
4. Feedbacks

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Please enter the number of your selection:

1. Room services menu

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ROOM SERVICES MENU

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1. Order Room Service

2. Request Housekeeping

3. Report Maintenance Issue

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Please enter the number of your selection:

1. Hotel information menu

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HOTEL INFORMATION MENU

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1. Amenities

2. Local Attractions

3. Contact Information

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Please enter the number of your selection:

1. Language selection menu

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LANGUAGE SELECTION MENU

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1. English

2. Spanish

3. French

4. Hindi

5. Mandarin

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Please enter the number of your selection:

1. **Designing a display that provides appropriate feedback for a user whose daily update report on locally available produce has been successfully sent to the chef.**

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FOOD INVENTORY SYSTEM

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Daily Update Report

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Success! Your report on locally available produce

has been successfully sent to Chef Josh & Colleen.

Summary of Update:

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- Apples: 50 lbs available

- Tomatoes: 30 lbs available

- Spinach: 20 lbs available

- Carrots: 40 lbs available

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Next Steps:

1. Send Another Update

2. View Previous Reports

3. Exit

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Thank you for keeping the kitchen stocked!

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