

# 15 Lecture - CS408

## Important Subjective

### **What is a command-line interface (CLI)?**

Answer: A command-line interface (CLI) is a text-based interaction paradigm where users enter commands using a keyboard to interact with a computer system. Users need to have knowledge of specific commands and their syntax to operate the system.

### **Explain the concept of a graphical user interface (GUI).**

Answer: A graphical user interface (GUI) is a visual interaction paradigm that uses graphical elements such as icons, buttons, and windows to facilitate user interaction with a computer system. GUIs provide a visual representation of information and actions, making them more user-friendly and accessible.

### **How does a menu-based interface work?**

Answer: A menu-based interface is an interaction paradigm that uses hierarchical menus to present options to users. Users navigate through the menus using input devices such as a mouse or keyboard to select options.

### **Describe a form-based interface in HCI.**

Answer: A form-based interface is an interaction paradigm that uses forms with predefined fields for users to input data. Users fill out the form by typing or selecting options from dropdown menus or checkboxes.

### **What is a natural language interface?**

Answer: A natural language interface is an interaction paradigm that allows users to communicate with a computer system using natural language, such as spoken or written language. Virtual assistants, chatbots, and voice-controlled systems are examples of natural language interfaces.

### **Explain the concept of a gesture-based interface.**

Answer: A gesture-based interface is an interaction paradigm that uses body movements or gestures to control a computer system. Users can perform actions such as swiping, tapping, or waving to interact with the system.

### **How do touch-based interfaces work?**

Answer: A touch-based interface is an interaction paradigm that allows users to interact with a computer system by touching the screen directly with their fingers or stylus. Touch-based interfaces are widely used in smartphones, tablets, and interactive kiosks.

**Describe an augmented reality (AR) interface in HCI.**

Answer: An augmented reality (AR) interface is an interaction paradigm that overlays digital information, such as images or 3D objects, onto the physical environment in real-time. Users can interact with the digital content through gestures, voice commands, or other input methods.

**What is a virtual reality (VR) interface?**

Answer: A virtual reality (VR) interface is an interaction paradigm that creates a computer-generated environment that users can immerse themselves into and interact with. Users can interact with the virtual environment using gestures, controllers, or other input methods.

**Explain the concept of a brain-computer interface (BCI).**

Answer: A brain-computer interface (BCI) is an emerging interaction paradigm that allows users to control a computer system using their brain signals. BCIs use techniques such as electroencephalography (EEG) or functional magnetic resonance imaging (fMRI) to detect and interpret brain activity.

**Note: The answers provided are brief explanations of each concept and may not cover all details. It's always recommended to refer to relevant literature and resources for a comprehensive understanding of interaction paradigms in Human-Computer Interaction.**