1. **Briefly explain what is meant by the terms: perception, physiology and cognition.**

**Perception** refers to the way in which users interpret and make sense of the information presented to them through computer interfaces. This includes how users visually perceive and interpret the layout and design of graphical user interfaces, as well as how they process auditory and haptic feedback from computer systems.

**Physiology** refers to the study of how the physical characteristics of the human body, such as visual acuity, motor skills, and cognitive abilities, affect interactions with computer systems. This can include considerations such as the size and positioning of interface elements, the use of touch and gesture-based input, and the impact of visual and auditory feedback on user performance and satisfaction.

**Cognition** refers to the mental processes involved in interacting with computer systems. This includes how users perceive, understand, and remember information presented through interfaces, as well as how they make decisions and solve problems within the context of computer-mediated tasks. Cognition is a critical area of study in HCI, as it informs the design and development of computer systems that are effective, efficient, and enjoyable to use.

* **Think about the good and bad sides of the modalities studied in the article. Give at least one example of using the modalities presented in the paper concerning either the everyday life or computing domains.**
* The article by Banter (2010) explores the use of haptic force-feedback in touch screens and touch surfaces. Haptic feedback is the sense of touch that is used to provide tactile information to the user. The article highlights the benefits of haptic feedback in enhancing the user experience with touch screens and surfaces, as well as the challenges that need to be overcome to provide effective haptic feedback.
* One of the advantages of haptic feedback is that it can provide users with a more realistic and engaging experience when using touch screens and surfaces.
* On the other side, there are also some potential drawbacks to haptic feedback. One challenge is that it can be difficult to provide realistic feedback without creating a distracting or uncomfortable sensation for the user.
* One example of using haptic feedback in everyday life is in the design of smartphone keyboards.
* In the computing domain, haptic feedback can be used in a variety of applications, such as video games and virtual reality experiences.

2. **Think what kind of role the sense of touch plays or could play in our interaction with everyday technological devices. Try to come up with a simple example where touch is used in a new way in parallel with some other modality.**

* + One example of using touch in a new way in parallel with another modality could be the development of wearable devices that use touch to provide feedback to the user. For instance, a smartwatch could be designed with a touch sensor that vibrates or provides haptic feedback when the user has been sitting for too long. This would be a new way to use touch, in parallel with visual or auditory feedback, to promote healthy behavior.
  + Another example could be the use of touch to enhance the experience of using augmented reality (AR) technology. For instance, an AR headset could be designed with haptic feedback that simulates the sensation of touching virtual objects in the real world. This would allow users to interact with virtual objects in a more natural and intuitive way, which could enhance the overall experience of using AR technology.