***Course ITU 08204***

***Bcs. IT & Bcs. CS***

***HUMAN COMPUTER INTERACTION***

***Assignment C***

**Tutorial questions on Perception and Cognition**

**Read from Notes : in not more than 2 pages explain;**

a) Briefly explain what is meant by the terms:  perception, physiology and cognition.

b) Identify three different ways in which `functional ageing' can affect interface development.

c) Environmental factors can impair users' ability to recall information that is necessary to in cooperate complex, computer systems. Briefly explain how such disruptions can impair both short-term and long-term memory

**Discussion questions**

Read the article by Banter (2010): [Touch screens and touch surfaces are enriched by haptic force-feedback;](http://www.walkermobile.com/March_2010_ID_Haptic_Force_Feedback.pdf)

[In not more than](http://www.walkermobile.com/March_2010_ID_Haptic_Force_Feedback.pdf) **[three](http://www.walkermobile.com/March_2010_ID_Haptic_Force_Feedback.pdf)** [pages answer the following;](http://www.walkermobile.com/March_2010_ID_Haptic_Force_Feedback.pdf)

1. 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.
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.
3. Haptics in games. Present at least three examples of using haptics in different kinds of games.
4. Give a design for an interactive haptic toy for young children. Aim at maximizing the use of haptics and include also at least one other modality through which the child can interact with the toy.
5. Which of the actuation technologies listed in the article would you use with touchscreens in car environment? Why would you use the particular technology?
6. Do you think that haptics will be used in future automotive products? Why or why not?