

**School of Information Technology
Indian Institute of Technology Kharagpur**

IT60110: Human Computer Interaction

Mid-Spring Semester Test, Session 2007-2008

Full marks: 60

Time: 2 hours

Answer ALL questions

1. (a) Definition HCI according to ACM SIGCHI is stated below.

Human computer interaction is a discipline concerned with the design, implementation and evaluation of interactive computing systems for human use and with the study of major phenomenon surrounding them.

Explain the implications of all the underlined words or sentences in the above stated definition.

[9]

- (b) Discuss why HCI is important with reference to the way in which technology has developed during the past thirty years.

[6]

2. (a) Explain the different interaction styles are known so far. Which interaction style is most suitable for novice user? Why?

[3+1+2]

- (b) Explain what do you mean by the following.

- i. Human factor
- ii. Ergonomics
- iii. Cognition

[3×3]

3. (a) Mention the Eight Golden rules of user interface design (UID).

[4]

- (b) What are the principal criteria of Direct Manipulation based interface design technique?

[3]

- (c) Explain how the criteria of direct manipulation you have mentioned in Q 3.(b) obey some of the rules you have stated in Q 3 (a).

[8]

Please Turn Over

4. Consider a portable communication device say, xPhone as an alternative to the ongoing cell phone device. The *xPhone* must possess all the tasks that a cell phone provides.
- (a) Identify at least five tasks for the proposed *xPhone*. 5
- (b) Following the embodied user interface, illustrate your approach to design and implement each of the tasks you have profiled. 5
- (c) In what are the ways *xPhone* is comparable to that of the cell phone? Justify your answer. 5

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