

Total number of printed pages: Programme(PG)/2nd/PCSE213/2024

Human Computer Interaction

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

Q1.

- What are the factors that affect the usability of an interface?
- Rule of thumb - "for every one dollar invested in User Experience research you save \$10 in development and \$100 in post-release maintenance". Justify this statement with the context of any e-commerce application.

(10+10)

Q2. With an example discuss the following properties, and also write down the mathematical formulations of those properties.

- Balance
- Sequence
- Simplicity
- Unity

(4*5)

Q3. Consider you have developed an application for the admission cell of CITK. To check the usability of your application, there is a need to carry out an empirical analysis.

- Construct at least five research questions for your study.
- What are the dependent variables, and independent variables you should consider?
- How will you analyze the results of your study?

(10+5+5)

Q4.

- What are the disadvantages of the Hierarchical Task Model?
- Design a Concur Task Tree for sending messages, and video calling in a social networking application.

(5+15)

Q5. Write down Nielsen's Heuristics for usability testing. Using it try to find out at least ten usability issues associated with our institute website (cit.ac.in).

(10+10)

Q6. Write short notes on

- a) Low fidelity prototype
- b) Think aloud protocol
- c) Fitt's Law
- d) Computational model of HCI

(4*5)

