

Human Computer Interface (IT359)

Tutorial 4

1. Briefly describe the differences between physiology and perception. [6 marks]
2. What is RSI and why is it an increasing problem for computer users? [10 marks]
3. Briefly describe the links between high staff turnover, poor working conditions, Health and Safety legislation and problems such as Carpal Tunnel Syndrome. [10 marks]
4. The Johnson Corporation have been asked to perform what is called a 'human reliability assessment' of a well-known company's IT department. As a result of this study they have decided to produce a leaflet that can be given to employees to show them what a good typing posture should look like. Your task is to draw up a first version of this leaflet. Marks will be awarded for diagrams indicating both good and bad posture. [24 marks]
5. Define Fitt's Law and explain what is meant by fields, context and control when used in forms interface design. [15 marks]
6. The following interface has been designed for a parts ordering company. The parts department will complete this form in response to telephone orders from various sites, each person ordering has a unique client code. Two pull down menus at the top of the screen allow the user to enter the part type and the destination. An order will be sent on pressing the "Send" button.
Criticise the design and suggest ways to improve it. Your answer should include 4 criticisms and a suggestion of how to improve each. [20 marks]

The interface is titled "Car Parts Ordering System". It features a central area with a "Client code" input field and a numeric keypad (0-9). Below this is a "Send" button. At the top, there are two pull-down menus labeled "Parts" and "Destinations". At the bottom, there are two more pull-down menus labeled "Parts" and "Destinations", and two empty text input fields. To the left and right of the main interface are two lists of items. The left list, under the heading "Parts", includes: Alternator, Brake, Clutch, Diode, Electric Window, Fan Belt, Grommet, Hand Brake, and Indicator. The right list, under the heading "Destinations", includes: Auchterarder, Birmingham, Carlisle, Doncaster, Edinburgh, Forfar, Glasgow, Hatfield, and Inverness. Lines connect the "Parts" and "Destinations" labels at the top of the interface to their respective lists on the sides.

7. Given an implementation of the original system and the system revised according to your suggestions, explain how you would plan an evaluation to show that your system is more usable. Your answer should include a definition of what you mean by usable. [20 marks]