1 What classes of output devices can be used by wearable computing?
2 Give three examples of optical output devices for wearable computers.
3 What is Visual Acuity?
4 What is defined as 20/20 Visual Acuity?
5 What is the angular resolution of the human eye at 20/20 visual acuity?
6 How can we compute the effective resolution of a display system if we know its size and focal distance?
7 What is the difference between a monocular and a binocular HMD?
8 What is the difference between a see-through and a see-around HMD?
9 When calculating the effective resolution of a HMD, what has to be taken into account in addition to normal display devices?
10 What is the difference between open and closed headphones?
11 What is active noise compensation?
12 How does a “silent” mobile phone alarm work?
13 What is a chording keyboard?
14 What is the difference between multitap and T9?
15 What is speaker-independent voice recognition?
16 How can a voice recognition system detect that the user wants to give voice input (and not talk to somebody else)?
17 What is WIMP?
18 What is PACT?
19 Name 4 physical differences of people that should be observed when designing wearable computers.
20 Give an example for a usage difference of people using a system.
21 Give two examples for psychological differences of people using a system.
22 Give 3 examples of differences in the temporal aspects of activities of users using a system.
23 Describe two aspects of accessibility of a system.
24 Describe two aspects of usability of a system.
25 Describe two aspects of acceptability of a system.
26 Describe two aspects of engagement of a system.
27 What is the design principle of visibility?
28 What is the design principle of familiarity?
29 What is the design principle of affordance?
30 What is the design principle of control?
31 What is the design principle of constraints?
32 What is the design principle of flexibility?
33 What is the design principle of conviviality?
34 What are the four levels in the “levels of analysis” HCI theory?
35 What is the difference between the semantic and the syntactic level in the “levels of analysis” HCI theory?
36 What is the difference between the syntactic and the lexical level in the “levels of analysis” HCI theory?
37 What are the seven stages of action in Normans “stages of action” theory?
38 What is GOMS?
39 What is the difference between a method and an operator in the GOMS theory?
40 What is the keystroke level model?
41 What is are the limitations of the keystroke level model?
42 What is a sensor?
43 What is a time series?
44 What is a measurement?
45 What properties of a sensor make context detection difficult?
46 Name four sensors and what they are measuring?
47 What is sampling?
48 What is the sampling frequency?
49 What is quantization?
50 What is noise?
51 How can sensors be classified?
What is time-of-flight measurement?
What is triangulation?
What is inertial measurement?
What classes of context can be distinguished?
Name three sources of context.
What is the context toolkit?
What is a context widget?
How can an application work with context?
What is context in wearable computing?
What is the difference of context and input?
What makes the use of context in desktop systems difficult? Is it a good idea?
What is a Task Model?
What is a ConcurTaskTree?
Name four operators of a CTT.
Why is it necessary to evaluate a wearable system?
Why is it hard to evaluate a wearable system in its actual usage environment?
Describe the hotwire experiment.
Give an example of a primary and a secondary task, the way they influence each other and an experiment that measures the influence.