Namu Ephantus

COM/006/15

COM 415 Cat: Human factors in Computer

Question One

a) The human eye has a number of limitations. Give three examples.

1) Color blindness.
2) Blind spot
3) Visual acuity(resolution)

b) For one of the limitations identified in (a), describe how this should be taken into account in the design of a visual interface.

Color blindness means that people cannot differentiate colors, so don't use color only as the factor on button or displays, so they may be viewed as the same

c) There are three types of human memory. List them.

1) Working memory
2) Long-term memory
3) Short-term memory

d) Describe what is thought to happen when people forget things

1) Problem transferring short-term into long-term memory
2) Hard to recall things

e) What is meant by chunking?

Limping things together into units

f) How does chunking affect GUI design?

1) Limited number of steps you have to remember when things are chunked together.
2) Chunk related things lead to menu layouts.

Question Two

a) What does it mean by Home and entertainment applications as usability in HCI?

It means that those applications are a measure of product's potential to accomplish the goals of the user.

b) State and explain usability goals aimed at achieving effectiveness, efficiency, and satisfaction.

1) **Effectiveness** - usefulness and safety of technology in reaching goals: completeness, accuracy, cognitive match, tasks/functions allocation between human and computer
2) **Efficiency** – The efficiency expenditure resources : time, cost, productivity (error rates, learnability)
3) **Satisfaction** - User satisfaction of interactions with systems: positive perceptions about usability and perceived benefits lead to application acceptance and use.

Question Three

a) What is affordance as used in HCI?

Affordance is the relationship between what something looks like and how it's used. Example a button looks as if it needs to be turned on or pushed.

b) State and explain any five features that make a good user interface.

1) **Responsive** – Should provide some form of feedback
2) **Forgiving** – Enable user to undo mistakes, redo, undo.
3) **Concise** – user will not spend too much time to read, keep things clear and concise.
4) **Consistence** – allow users to develop usage patterns, similar buttons should do the same work across the entire system.