

## Assignment 2 & 3

### (User Interface design)

Q1: What are characteristics of good interface.

Ans Characteristics of good interface are utility, clarity, concision, familiarity, responsiveness, reliability, user friendliness, consistency, aesthetics, efficiency, forgiveness .

Q2: Explain basic principle of basic principle design.

Ans Contrast-When a design uses several elements (e.g., type, colour, size, line, shape, thickness), the goal is to make each one distinct. Contrast allows designers to assign characteristics that set elements apart from each other

Repetition-Repetition helps to designers establish relationships, develop organization and strengthen unity size

Alignment-Skilled designers never place anything arbitrarily. All elements should relate to all others in some way

Proximity-When items are grouped or appear close together, they become a single visual unit, rather than several separate entities

Q3: what is cognitive ergonomics? Explain briefly its components.

Ans Cognitive ergonomics is the field of study that focuses on how well the use of a product matches the cognitive capabilities of users. It draws on knowledge of human perception, mental processing, and memory.

1 Humanizing the information treatment-This has to do what is commonly called the mental load which takes in account the users senses and mnemonic limits, the limits and ways a user perceives and learns

2 Optimizing perceptual memory-Perceptual memory is a part of the memory which manage information perceived with our five senses

3 Reading speed and distance -reading text on screen is between 20% and 30% slower than reading printed material. It is important to fragment informations in smaller chunks and use captions to encourage the user to read

Q4 Explain 10 principles of cognitive ergonomics?

Ans: Standardize -In every domain including interface design, there are widely common way of doing things. for instance, electricity wires are identified using colors the same way eveywhere

1 Controls matching equipment layout-whenever possible, configure elements in a way that the usage become obvious. for instance, on a stove, the best practice is to position the powerknobs

2Simplify the presentation of informations-Well organizedinformations makes understanding easier and faster. Using design principle such as unity, proximity

3 Present information in appropriate detail-Not all the users and not all the tasks require the same quantity of details. Learn to display just the necessary amount of information

4 Present clear images-Using icons, metaphors or images, be careful to make it so the user is able to see and interpret them clearly

5 Using redundancies-Redundancies have to do with consistency, standards and stereotypes it means to repeat the message many times different ways to reduce the risk of errors to occur

6 Provide variable stimuli-just like something unusual sticks out of patterns, anything new of a differentaspect is easier to notice

7 provide instantaneous feedback-Use feedback at all possible time to confirm an action or a process let users know that their content is downloading or tell them what action should be taken

