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**MATRIC NO:** 15/ENG02/027

**COURSE:** CSC 406 – HUMAN COMPUTER INTERACTION

**ASSIGNMENT:** ONLINE ASSIGNMENT 4

**QUESTION**

1. What is color harmony? Discuss why color harmony is important in HCI.
2. Explain the following using examples:
3. Components of Color
4. Primary Colors
5. Secondary Colors
6. Tertiary Colors

**ANSWER**

1. Color harmony or color scheme refers to the property that certain aesthetically pleasing color combinations have. These combinations create pleasing contrasts and consonances that are said to be harmonious. These combinations can be of complementary colors, split-complementary colors, color triads, or analogous colors. Color harmony can be used to achieve certain moods and aesthetics.

Color harmony is important in human computer interaction because we want the users to be engaged with our interface and if an image is visually boring, the viewer will not be able to understand it because of a chaotic color scheme. Color harmony provides structure and it can be used to tell a user that an object has more importance than an order by introducing contrast or saturation & value.

1. **Components of color:** The colors we create are possible through the combination of three principal color elements known as the three chromatic properties, hue, value, saturation. These are the three components of color. Hue is the spectral wavelength composition of a color that produces the perception of being red, yellow, blue, and so on. Value is the relative lightness or darkness of a color. This is what you see when you take a black and white photograph. Saturation is the degree of richness or the amount of gray in a color.
2. **Primary color:** The primary colors are red, yellow, blue, and they are the top of any color structure. You can think of them as the original parents of all the colors because you could conceivably mix gazillions of colors with only these three colors.
3. **Secondary color:** Secondary colors are orange, purple and green. They are the children of primary colors because if you mix any two primary colors what you get is a secondary color. Mixing yellow and red will give orange, red and blue will give purple and blue and yellow will give green.
4. **Tertiary color:** These are the remaining six colors on the color wheel. This is achieved by mixing a primary color with one of its nearest secondary color on the color wheel. Mixing yellow and orange gives yellow-orange, red and orange gives red-orange, red and purple gives red-purple, blue and purple gives blue-purple, blue and green gives blue-green and yellow and green gives yellow-green.