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**Subject : Color study**

**Department : BTD 1<sup>st</sup> semister**

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**Fill in the Blanks**

- a. Isaac Newton used colors for experimentation.
- b. Adjacent colors on color wheel are Analogous colors
- c. Massive success in our business, career, personal life through knowledge  
of color Psychology.
- d. Color intensity is also known as chroma / Saturation.
- e. Long wavelength are detected sooner by our eyes.
- f. In marketplace color plays a role of Silent sales person.
- g. Color Benefits our mental and physical welfare.
- h. The chart that shows the relationship of different colors to each other is  
called the Color wheel.
- i. Additive color models is used in computers, televisions and theatre.
- j. Vivid or bold colors in nature depicts bright.

## Questions and Answers

### 1. Difference between color of light and color of pigment?

Ans. Pigments are chemical that absorb selective wavelengths—they prevent certain wavelengths of light from being transmitted or reflected. Because paints contain pigments, when white light (which is composed of red, green, and blue light) shines on colored paint, only some of the wavelengths of light are reflected.

Light is color unto itself, and pigments take away colors from white light. Pigments work by absorbing certain wavelengths of light; they appear as the complementary color of the wavelength they absorb. Light and pigments have no colors.

### 2. Explain properties of color with Examples.

ans.

**Color:-** Color is the characteristic of visual perception described through color categories, with names such as red, orange, yellow, green, blue, or purple. This perception of color derives from the stimulation of photoreceptor cells by electromagnetic radiation.

## Properties of Color

**Hue.**

**Tint.**

**Shade.**

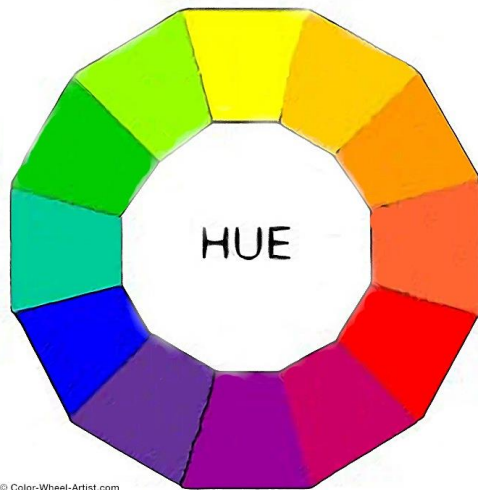
**Tone.**

**Saturation.**

## Lightness.

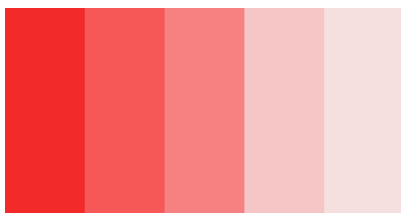
## Intensity

1. **Hue:-** Hue is the term for the pure spectrum colors commonly referred to by the "color names" - red, orange, yellow, blue, green violet - which appear in the hue circle or rainbow.



## Tint:-

Tints are light values that are made by mixing a color with white. For example, pink is a tint of red, and light blue is a tint of blue.



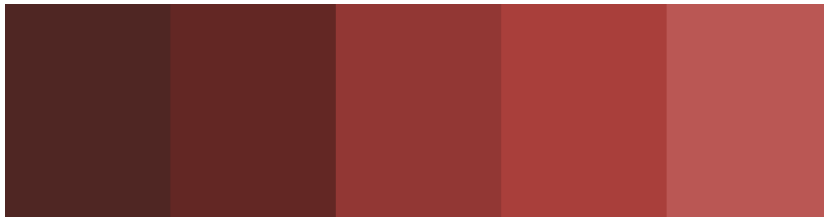
## Shade:-

shade is a mixture with black, which increases darkness. Maroon is a shade of red and navy is a shade of blue.



### **Tone:-**

Tone as any Hue or mixture of pure colors with only Gray added. In other words, there are no additional pigments in the Gray other than White plus Black. A neutral mixture of Gray, no matter how light or dark, will tone down the intensity of any color.



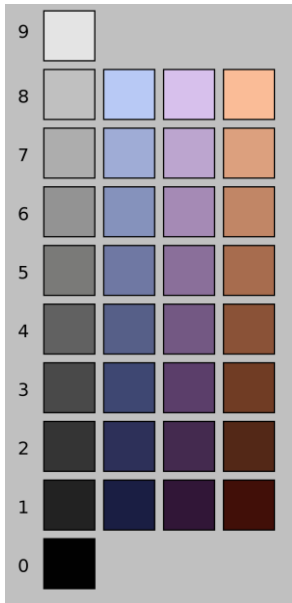
### **Saturation:-**

Saturation defines the brilliance and intensity of a color. When a pigment hue is “toned,” both white and black (grey) are added to the color to reduce the color's saturation.



### **Lightness:-**

lightness, also known as value or tone, is a representation of variation in the perception of a color or color space's brightness. It is one of the color appearance parameters of any color appearance model. Various color models have an explicit term for this property.



**Intensity:-**

Intensity can also be considered as the brightness or dullness of a color. Intensity is adjusted by adding additional colors to the pure hue. A color can be made less intense by adding gray to the color. In some ways, intensity can be measured by the amount of gray in the hue. Hues can only degrade in intensity.

Six Degrees of Intensity



**3. What is color Psychology?**

**Color Psychology:-**

- Color psychology is the science that explains the connection between colors and the psychology of people.
- Marketing and advertising are well-known for utilizing color psychology.
- Color is consistently used in an attempt to make people hungry, associate a positive or negative tone, and encourage trust, feelings of calmness or energy, and countless other ways.
- Colors have power,, if we use our knowledge of color psychology well, we can enjoy massive success in our business, career and personal life.
- It was also suggested that the environmental color (e.g. color lighting) and the object's color (e.g. color of one's clothing) would be different in ways they exhibit psychological effects on us.
- These colors benefit our mental and physical welfare.

## Choose the correct option

1. Key color in color models. **Black**  
(red, green, black)
2. Discourage aggressive and impulsive behaviors. **Cool**  
(achromatic, cool, primary)
3. The powerful color as a longest wavelength. **Red**  
(orange, black, red)
4. Sharp contrast of colors. **Warm**  
(monochrome, complementary, warm)
5. Color associated with royalty since ancient times. **Purple**  
(purple, blue, green)