

MAY ALMIGHTY ALLAH PROTECT US ALL FROM THIS PANDEMIC SITUATION

Department of Art & Design  
IQRA National University

FINAL SEMESTER ASSIGNMENT SPRING 2020

Course Code: FC-121

Program: BFD, BTB, BID

Course Title: Color Study

Module: Semester 1

Prerequisite: None

Total Marks: 40

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Note: Attempt all questions:

Q. No.	Part	Question	Marks
1.		<b>Fill in the blanks:</b>	10
	a)	<b><u>Newton</u></b> used colors for experimentation.	
	b)	Adjacent colors on color wheel are <b><u>Analogous Colors</u></b> .	
	c)	Massive success in our business, career and personal life through knowledge of color <b><u>Psychology</u></b> .	
	d)	Color intensity is also known as <b><u>Hue</u></b> .	
	e)	<b><u>Visible light</u></b> wavelengths are detected sooner by our eyes.	
	f)	In market place color plays a role of <b><u>Good</u></b> sales person.	
	g)	<b><u>Colors</u></b> benefit our mental and physical welfare.	
	h)	The chart that shows the relationship of different colors to each other is called the <b><u>Color Wheel</u></b> .	

	<p>i)</p> <p>j)</p>	<p><b>Additive</b> color model is used in computers, television and theater.</p> <p>Vivid or bold colors in nature depict <b>Bright</b> colors.</p>	
<p>2.</p>	<p>(A)</p> <p>(B)</p>	<p>Difference between color of light and color of pigment?</p> <p><b>Different between Color of Light and color of Pigment :</b></p> <p><b>COLOR OF LIGHT :</b></p> <p>White light is a combination of all colors in the color spectrum. It has all the colors of the rainbow. Combining primary colors of light like red, blue, and green creates secondary colors: yellow, cyan, and magenta.</p> <p>Objects appear one color or another because of how they reflect and absorb certain colors of light.</p> <p>For example, a red wagon looks red because it reflects red light and absorbs blue and green light. A yellow banana reflects red and green light, and absorbs the rest.</p> <p><b>COLOR OF PIGMENT :</b></p> <p>A pigment is a material that changes the color of reflected or transmitted light as the result of wavelength-selective absorption. Materials that humans have chosen and developed for use as pigments usually have special properties that make them useful for coloring other materials.</p> <p>This physical process differs from fluorescence, phosphorescence, and other forms of luminescence, in which a material emits light. Pigments that are not permanent are called fugitive.</p> <p>Chlorophyll, which gives a green color to plants, and hemoglobin, which gives blood its red color, are examples of pigments.</p> <p>Explain properties of color with examples?</p> <p><b>COLOR OF PROPERTIES</b></p> <p>In this section we have a look at the terminology of color properties and their meaning in different contexts. Color properties allow us to distinguish and define colors. The more we know about color properties, the better we can adjust colors to our needs.</p>	<p>15</p>

**Hue**

Hue defines pure color in terms of green, red or magenta. Hue also defines mixtures of two pure colors like red-yellow orange, or yellow-green. Hue is usually one property of three when used to determine a certain color.

**Example**

The different hues have different wavelengths in the spectrum. ... Saturation can also be called a color's intensity.

**Tint**

Tint is a color term commonly used by painters. A tint is a mixing result of an original color to which has been added white. If you tinted a color, you've been adding white to the original color. A tint is lighter than the original color.

When used as a dimension of a color space, tint can be the amount of white added to an original color. In such a color space a pure color would be non-tinted.

**Example**

The different hues have different wavelengths in the spectrum. Saturation can also be called a color's intensity.

**Shade**

Shade is a color term commonly used by painters. A shade is a mixing result of an original color to which has been added black. If you shaded a color, you've been adding black to the original color. A shade is darker than the original color. When used as a dimension of a color space, shade can be the amount of black added to an original color. In such a color space a pure color would be non-shaded.

**Example**

Shades are dark values that are made by mixing a color with black. Maroon is a shade of red, and navy is a shade of blue.

**Tone**

Tone is a color term commonly used by painters. There is a broader and a narrower definition of tone. The broader definition defines tone as a result of mixing a pure color with any neutral or grayscale color including the two extremes white and black. By this definition all tints and shades are also considered to be tones. A tone is softer than the original color.

Tone is not used as a dimension of a color space. Instead, the tonal difference consists of the amounts of white and or black used to determine a certain color.

**Example**

tone color is the sound that a trumpet has as opposed to a saxophone

**Saturation**

Saturation is a color term commonly used by (digital or Analog) imaging experts.

Saturation is usually one property of three when used to determine a certain color and measured as percentage value. Saturation defines a range from pure color hundred percent to grey zero percent at a constant lightness level. A pure color is fully saturated.

**Example**

Saturation is a colors freedom from white and black. A pure hue is more saturated than a color that has been mixed with white, black, grey or the hue's complementary color.

**Lightness**

Lightness is usually one property of three when used to determine a certain color and measured as percentage value. Lightness defines a range from dark zero percent to fully illuminated hundred percent. Any original hue has the average lightness level of fifty percent. A painter might say lightness is the range from fully shaded to fully tinted. You can lighten or darken a color by changing its lightness value.

**Example**

Alice Blue, Baby Blue, Bubbles etc.

**Chromatic Signal / Chromaticity / Chroma**

In the previous section we learned that color perception is a result of achromatic and chromatic signals. We can therefore define a chromatic signal as the component of color perception that is not achromatic.

**Example** any deviation from neutral-color perception (dark, grayscale, illuminated).

**Chroma** is a component of a color model. There's a blue-yellow and a red-green chroma component.

**Intensity**

In general, intensity is a synonym for magnitude, degree or strength. It can therefore be used in conjunction with any color property. Nevertheless, it carries special meaning in certain contexts.

For painters the meaning of intensity is equivalent to the meaning of saturation.

When speaking of light, the intensity can mean the number of photons a light source emits.

**Brightness**

Brightness is an attribute of our perception which is mainly influenced by a color's lightness. This is probably why brightness and lightness are often mixed up.

Brightness is not a color property, if used correctly.

For one color of specific hue the perception of brightness is also more intense, if we increase saturation. A higher level of saturation makes a color look brighter.

It's very important to know more about Luminance.

		<p><b>Grayscale</b></p> <p>A grayscale is a series of neutral colors, ranging from black to white, or the other way around. Each step's color value is usually shifted by constant amounts.</p> <p>A grayscale color can be determined by a value of a one-dimensional color space:</p> <p>(C) What is color psychology?</p> <p><b>COLOR PSYCHOLOGY</b></p> <p>Color psychology is the science that explain the connection between colors and the psychology of people. Marketing the 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.</p>	
3.		<p><b>Choose the correct answer:</b></p> <p>a) Key color in color models. <b><u>Black</u></b> (red, green, black)</p> <p>b) Discourage aggressive and impulsive behaviors. <b><u>Cool</u></b> (achromatic, cool, primary)</p> <p>c) The powerful color as a longest wavelength. <b><u>Red</u></b> (orange, black, red)</p> <p>d) Sharp contrast of colors. <b><u>Warm</u></b> (monochrome, complementary, warm)</p> <p>e) Color associated with royalty since ancient times. <b><u>Purple</u></b> (purple, blue, green)</p>	5
4.		<p>Draw color wheel in which you have to show primary, secondary and tertiary colors with tints and shades</p>	10

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