

TEST BANK/01

This series of test questions, created for use with your students, provides short answer, multiple-choice, true/false and fill-in-the-blank questions based on the text and arranged by chapter. A separate answer key is available.

PART 1: LIGHTING FUNDAMENTALS

Chapter 1: Basic Principles

- 1 What is meant by the 'terminator' zone on a lit object?
- 2 What are the tiny particles of pure energy which make up visible light known as?
 - a. wavelengths
 - b. photons
 - c. spectrums
 - d. atoms
 - e. none of the above
- 3 Which colour light – red or blue – has the longer wavelengths?
- 4 True or false? White light from the sun is composed of the mixture of blue and red light.
- 5 What happens when light hits a surface?
- 6 Briefly explain what is meant by 'radiance'.
- 7 What is meant by a 'high-key' image and a 'low-key' image?
- 8 Give an example in nature of high-key lighting and low-key lighting.
- 9 What does three-point lighting in photography consist of? What is the biggest problem of this setup?

Chapter 2: Light Direction

- 1 What is meant by 'front lighting'?
- 2 What are the advantages of using soft front lighting? What are the disadvantages of using hard front lighting?
- 3 What is side lighting good for? When might you use it?
- 4 Where is the viewer looking in back lighting? How does back lighting affect objects being viewed?
- 5 What are the effects produced by using soft and hard top lighting?
- 6 Why does lighting from below lend a strange appearance to even the most familiar things?

Chapter 3: Natural Light

- 1 What are the two major factors that affect the character of sunlight? What effect does each have on sunlight?

- 2 At what time of day is the sun at its whitest and strongest? What effect does this light have on colours?
- 3 True or False? As the sun goes down its light becomes progressively colder.
- 4 What happens to contrast and shadows when the sun is about to set?
- 5 Describe what light is like at dusk.
- 6 What is meant by 'alpenglow'?
- 7 In open shade the sky becomes the main source of illumination and, as a result, the light has a strong _____ cast.
- 8 Describe the attractive qualities of overcast light. What can it be used to great effect to show?
- 9 Why is bright overcast light an almost ideal compromise between the strong contrast of sunshine and the relative dullness of heavy cloud?
- 10 What is meant by 'dappled light'? Where might you find this?
- 11 What is the key point to remember about lighting a night scene?
- 12 What is moonlight?
- 13 List some of the factors that influence the colours you see in the sky.
- 14 Why are things which are further away obscured by haze and look fainter, bluer and lower in contrast?

Chapter 4: Indoor & Artificial Light

- 1 What is the colour of light coming through a window dependent on?
- 2 Why did artists in the past have studios with a north-facing window?
- 3 What is the colour of tungsten lighting? Why is it used in the manufacture of light bulbs?
- 4 What is most commonly used indoors to diffuse artificial light? What is the purpose of this?
- 5 When and where are fluorescent lights primarily used?
- 6 Why is light from a flame perceived as being even redder than incandescent light from light bulbs?

Chapter 5: Shadows

- 1 Describe the two kinds of shadows – form and cast.
- 2 True or false? In ordinary outdoor situations cast shadows will usually be lighter than form shadows.
- 3 What do form shadows on an object convey?
- 4 What is meant by an 'ambient occlusion pass'?
- 5 What is a 'base shadow'?

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- 6 What type of shadows will a small or distant light cast and what type will a large or adjacent light cast? What are the reasons for this difference?
- 7 In what ways is overcast sunlight completely different in character from direct sunlight? Why is this?
- 8 Explain the two ways in which transparency and translucency can have a major impact on shadow colour.

Chapter 6: How we Perceive Surfaces

- 1 What does diffuse reflection give objects?
- 2 What is the reflection from mirrors, polished metals and water known as?
 - a. diffuse reflection
 - b. contrast
 - c. transparency
 - d. direct reflection
 - e. none of the above
- 3 List the four properties that any surface possesses in terms of how it relates to light.
- 4 Edges between planes help define the form of an object. What else do edges also define?
- 5 True or false? The harder the edge, the greater the contrast it represents.
- 6 Why is it important for readability and visual harmony for an image to have a mixture of hard and soft edges?
- 7 How would you create an image with more contrast and more impact?

Chapter 7: Diffuse Reflection

- 1 When does diffuse reflection occur?
- 2 What is meant by 'light falloff'?
- 3 List the properties pertaining to the interaction between light and surfaces that apply only to diffuse reflection.
- 4 What properties of a surface determine its appearance?
- 5 Explain what is meant by a 'transition'? In soft edges, what does the exact amount of softness in the transition describe?

Chapter 8: Direct Reflection

- 1 What is the other name for direct reflection?
 - a. secular reflection
 - b. angled reflection
 - c. specular reflection
 - d. incandescent reflection
 - e. none of the above

- 2 True or False? Strong reflection among naturally occurring materials is common.
- 3 Why will an uneven surface cause the direct reflection to be blurred?
- 4 What is meant by an 'anisotropic reflection'?
- 5 What is the 'fresnel effect'?
- 6 What are the differences between the reflections of a flat reflective surface and a curved one?
- 7 True or False? Direct reflection is affected by shadows

Chapter 9: Translucency & Transparency

- 1 What is refraction? How is this different to diffusion?
- 2 A surface is transparent when light is not _____.
- 3 A surface is translucent where _____ occurs to the light as it passes through the material.
- 4 List two natural materials that are transparent and two that are translucent.
- 5 Where is refraction most apparent on a transparent surface?
- 6 When do caustics occur? What do they create?
- 7 Why might a translucent but not a transparent object cast shadows?

Chapter 10: Colour

- 1 True or False? In the colour spectrum the colours are discrete steps with red followed by orange, etc.
- 2 Briefly explain what is meant by each of the following properties used to describe colour:
 - hue
 - saturation and intensity
 - lightness
- 3 True or False? Colour always appears more saturated when it is a mid tone.
- 4 Which three colours is human colour perception based on?
- 5 The colours of the spectrum when blended together make _____ light.
- 6 Which two factors affect our perception of hue?
- 7 Why is intense colour saturation relatively rare in real world situations?
- 8 Why can incandescent objects be very saturated?
- 9 What factor determines how saturated shadows are?
- 10 Which is the most important component in terms of reading forms?
 - a. shadow
 - b. value

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- c. hue
- d. saturation
- e. none of the above

- 11 In scientific terms what is 'colour temperature'? What does it mean in traditional artistic terms?
- 12 Briefly explain what is meant by the following two types of colour variation and what causes them:
 - hue variation
 - luminosity variation

PART 2: PEOPLE & ENVIRONMENTS

Chapter 11: Light & People

- 1 What is the most obvious feature that affects the appearance of skin? What two major effects does this have?
- 2 Why does Caucasian skin have the greatest colour variation?
- 3 Why is direct light often used to photograph men and diffused light to photograph women?

Chapter 12: Light in the Environment

- 1 In outdoor situations what are the two main kinds of light?
- 2 How can distance cause the haze in a blue sky to take on a yellow tinge?
- 3 A typical landscape will generally conform to a certain value range based on the brightness of the sky. Put the following in order of brightness: trees and foliage, sky, ground.
- 4 In what ways do urban environments differ from natural ones?

PART 3: CREATIVE LIGHTING

Chapter 13: Composition & Staging

- 1 Why should the greatest contrast in an image be reserved for the main focal point?
- 2 When might back lighting be used?

Chapter 14: Mood & Symbolism

- 1 Which lighting factors play a role in conveying mood?
- 2 To which three elements are mood and symbolism generally applied in a film?
- 3 What is lighting from below commonly used for in films?
- 4 What can a cool blue light suggest? What can a warm red light suggest?
- 5 In a film, why might one section of a story be lit differently to another?

Chapter 15: Time & Place

- 1 How can lighting be used in a film to suggest specific ideas about a period or location?
- 2 How can lighting be used to separate different story elements or environments?