Digital Imaging and Photography Final Study Guide 2015

How will your performance change when setting your digital camera to a higher ISO?

Explain aperture settings. Which will have more depth of field: a setting of f16 or f4?

What is focal length?

Explain what a camera does for you when you use typical camera modes such as scenic, sports, portraits, and action?

One stop larger (f5.6 to f4 for example) lets in how much more light?

How does doubling the shutter speed, say from 1/100 to 1/200 second affects the amount of light?

Typical digital cameras adjust exposure to achieve an average of _____ % gray. Why is this fact important for you to know?

Explain bracketing.

What is "spot metering"?

What techniques can you use on your digital camera to improve its ability for "selective focus" that is, limit the camera's depth of field?

What is a Continuous or Burst Mode Camera Setting?

What are the useful differences between Direct Flash, Bounce Flash, Fill Flash, and off camera direct flash?

If you must use a built-in flash for photography, what can you do if it is too bright?

What exactly does Curves do?

What is an adjustment layer useful for ?

What is the difference between normal, overlay, and luminosity layer blending modes?

What is a layer mask useful for?

What does dodging do?

What does burning do?

Explain the differences between short lighting, broad lighting, and butterfly lighting. How might each type flatter a particular subject? What are those eight (at least) posing tips again?

How can you do Photoshop editing in non-destructive ways?

A: Adjustment Layers   Duplicate Layers
*   RAW files   Layer Masks*
*   Do Cropping Last*

What are strategies for best using the Liquify tool?

What is the Freeze Mask for in Liquify?

What is a Color Channel?

Within Photoshop, what does 16-bit color actually mean?

What tools do you get in the Color Balance tool in PS?

What is unique about the Shadow/Highlight tool?

How would you use a Reflector panel?

What is a Hard Light?

What kind of light increases contrast and enhances texture?

What imperfections is the Photoshop lens correction filter designed for?

Explain generally what you are doing when converting an image from color to BW using the channel mixer method or the color sliders in the Black and White image adjustment tool.

What is white balance?

What is the ideal color temperature?

What is the color temperature of overcast skies? Of daytime outdoor shadowed areas?

How do we judge/check white balance in an image?

How do we usually set aperture in macro photography, larger or smaller?

What is a good focal length for macro photography, wide or telephoto?

What typically happens to your depth-of-focus as you move closer to the subject?

How do you use the eyedroppers in the Levels or Curves to correct a color cast?

What are five advantages of shooting RAW files?

Technically, what are several advantages to editing such things as contrast and saturation in Camera RAW, when you could do the same things with Photoshop's regular tools anyway?

What does Image > Canvas Size do?

What is luminosity?

Explain what is represented by a histogram.
A: *Quantity of pixels per tonal range divided into 256 steps from black to white. Represents tonal or luminosity properties of an image.*

What is "clipping" in a tonal range, and why do we care?

Explain what the three triangular sliders in the Levels tool do.

What is the most recommended color profile for photography?

What is "framing" in picture composition?

How do you make the best use of morning, mid-day, and evening light, and of foggy or overcast light?

What does noise look like in an image? What causes it?

What are two good situations to use a Polarizer filter?

What are the basic guidelines for placing horizons in your scenic pictures?

Study Questions: Ch 12 Special Shooting
What are four recommendations for taking macro images?
A: • *Find your camera's macro "sweet spot" focal length.*
• *Work quickly and shoot a few frames each time.*
• *Watch out because your DOF will be very shallow.*
• *Keep the camera parallel to the plane surface of the subject.*

What are seven recommendations for taking panorama "stitch" images?
A: • *Use a tripod to keep the horizons level and aligned.*
• *Have a 15-30% overlap.*
• *Try to rotate your camera around a point on the lens axis.*
• *Use the same exposure for all the images to be stitched.*
• *Watch out for moving objects across images.*
• *Remember you can go vertical too.*
• *Remember to use for other subjects besides scenic ones.*

What are five rules for taking effective HDR shots?
A: • *Probably use a tripod.*
• *RAW is best.*
• *Use aperture priority so the DOF does not change between shots.*
• *Don't shoot something that is moving.*

• *Shoot at -1, 0, and +1.*

What are five recommendations for shooting at night?
A: • *Stabilize your camera. Tripod?*
• *Use higher ISO settings. Noise?*
• *Autofocus may not work.*
• *It is hard to see the frame. Hard to compose.*
• *Use a smaller aperture for adequate DOF.*

What do the following filters do?
        Polarizer filter
        UV filter
        Graduated Neutral Density filter

Study Questions: Ch 17 Selections and Masking
What does the quick selection tool do? What does it look like?
A: *Selects similar colors as you drag. A brush with a selection circle. Selects easy-to-select areas.*

Which selection tool allows you to select an area by painting over it in red? A: *Quick Mask at bottom of tool palette.*

In what ways can you refine the edge of a selection?
A: *Feather, Refine Edge is the best. Select > Refine Edge > (see options)*

Under Refine Edge, what does Shift Edge do?
Shrinks or expands the selection a few pixels.

Study Questions: Ch 21 Panoramic Stitching and HDR Merging

What does HDR Merging do?
A: *It combines images and uses data from each with Tone mapping. It combines properly exposed highlight and shadow areas, and produces subtly rich midtones.*

Where do you find HDR in Photoshop?
A: *File > Automate > Merge to HDR*

What are the ghosts that "Remove Ghosts" refers to?
A: *Something moving through the frame and captured on one but not the other constituent images.*

What is usually the best mode to choose, and why, 8-bit 16-bit or 32-bit?
A: *16-bit because it is rich in detail. 32-bit is only advantages for specialty work.*

Why do you want to do Tone and Detail in the HDR editor, rather than back in Photoshop?
A: *With a 16-bit image, you have a bigger range of changes you can make.*

What is the pitfall that editors often fall into with HDR?
A: *Getting every detail equally exposed and visible. It is unreal. Nothing stands out. It seems flat.*

Study Questions about Editing

What blending mode did we use to change the hair color?
A: *Overlay worked best. Normal is ok.*

What was the secret to creating a glamorous glow?
A: *We used Overlay to blend in a Gaussian blurred version of the image.*

Which channel shows the most skin blemishes, Red Green or Blue?

What is the difference between the patch tool and the healing brush?

What tools did we use to widen the eyes?

What is "content-aware" fill?

What are the secrets to using the liquefy tool effectively?

Study Questions about Macro Photography

What is the typical macro mode icon on a digital camera?

What is more important to macro photography, closeness of the subject to the camera, or magnification?

Generally, in macro photography, which lens setup is best for a flat object, telephoto or wide angle?

What is a ring light?   How does a tent affect lighting?

If you must use built-in flash, what can you do if it's too bright?

What typically happens to your depth-of-focus as you move the camera closer to the subject?

How much of the available depth-of-field is usually behind the object in focus, and how much is in front?

Why do we make sure the back of the camera is parallel to the surface plain on the macro subject?

What does aluminum foil, a cooler, and a water spray bottle have to do with close-up photography?

Study Questions on Compositing
What are the characteristics of photographs and light that must be matched when trying to composite images?
A: *size, resolution, graininess, DOF, brightness/exposure, contrast, color of light (color balance), direction of light, perspective, location and hardness or softness of shadows.*

Where do you find the Quick Selection tool?

What are the effects applied to composite image layer when it is supposed to appear as a reflection?

How does Image > Adjustments > Match Color help composite images?

How does Edit > Free Transform help composite images?

What are the key steps to create a cast Shadow in PS?

Where do you find a film-grain tool in PS?

Study Questions on Product Photography
How are tents and softboxes used? What do each type allow you to do that you cannot do with ordinary photography lights?

What is the most important factor in product photography?

What is the most important recent lighting equipment invention?

What are the general guidelines for softbox placement? What is our starting distance between the softbox and the product being photographed?

Why might you want to try two different size softboxes on the same image?

Study Questions on Output
What is a half-tone dot? What is a half-tone screen?

How do you use Levels to target highlight and shadow details for printing? What does this do?

How does setting endpoints for printing <u>help</u> *the image? Does it actually increase or decrease contrast?*

How can you make a pdf slideshow with PS?

What is a contact sheet?