

SIMG-215-02-20061 Solutions to Quiz #1 — 19 September 2006

SELECT ANY FOUR (4) QUESTIONS — 20 Minutes

1. Listed below are some of the components of the *imaging chain*. Fill in the blanks to complete the chain.

- I. Energy Source
- II. Object
- III. Propagation & Collection
- IV. Sensor (or Detector)
- V. Processing
- VI. Transmission, Compression, Storage
- VII. Display
- VIII. Human Observer

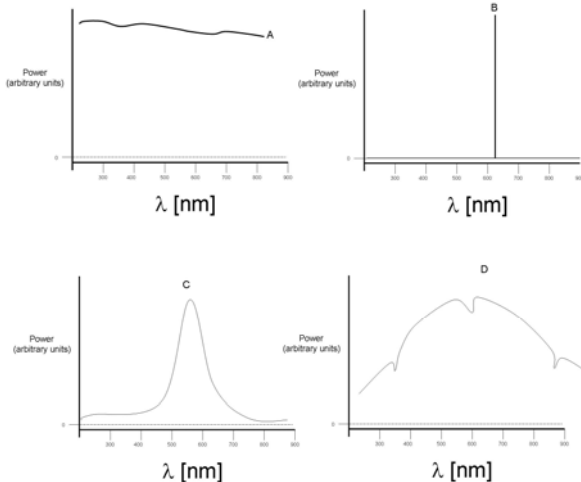
2. (Circle all that apply) Light interacts with matter through the mechanisms of:

- ~~a. blending~~
- b. reflecting
- c. scattering
- ~~d. erasing~~
- e. absorption

3. List the names of the two models of light that are used to describe the action of imaging systems:

- a. RAYS
- b. WAVES

4. Match the spectrum with the source:



- a. Sunlight (= D (spectral absorption lines))
- b. Laser (= B, one wavelength)
- c. Incandescent Bulb (= A, flat spectrum)
- d. Yellow lamp (= C, emits light at BOTH green and blue wavelengths)

5. List the following in order from *shorter wavelength* to *longer wavelength*.

- a. infrared radiation
- b. visible red light
- c. visible blue light
- d. radio waves
- e. X rays
- f. ultraviolet light

shortest = X rays

longest = radio waves

In order: E, F, C B A D