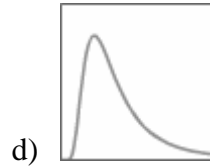
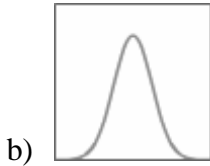
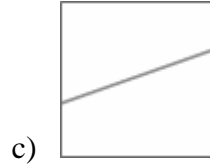
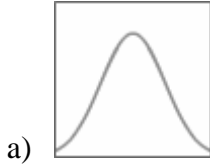


Blackbody Curves & UBV Filters – Posttest

Answer the following questions:

Question 1: Which of the following is a blackbody curve?

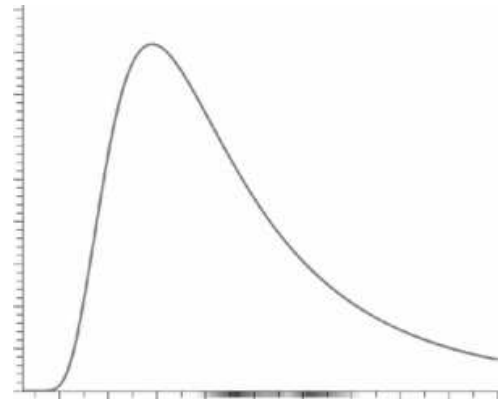


Question 2: Which term describes how much energy per unit time a light source emits (from the observer's perspective)?

- a) color
- b) frequency
- c) wavelength
- d) blackbody
- e) intensity

Question 3: The blackbody curve for an object at $T = 10,000$ K is shown in the figure. If the temperature is lowered to $5,000$ K...

- a) the area under the curve is halved and the peak wavelength is halved.
- b) the area under the curve is halved and the peak wavelength doubles.
- c) the area under the curve decreases by a factor of 16 and the peak wavelength doubles.
- d) the area under the curve decreases by a factor of 16 and the peak wavelength is halved.

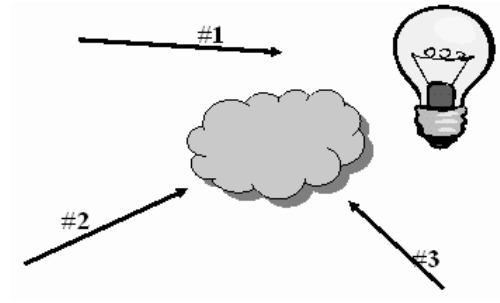


Question 4: If a star is redder than the sun, how does the temperature of the star compare to the sun?

- a) higher temperature
- b) colder temperature
- c) basically the same temperature

Question 5: To the right is a hot blackbody source represented by the light bulb. The cloud is a cool, low density gas. What type of spectra would an observer looking from the perspective labeled #2 see?

- a) continuous
- b) emission
- c) absorption

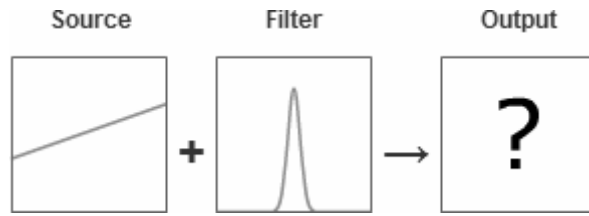


Question 6: Which of the following filter would have a central wavelength of 600 nm?

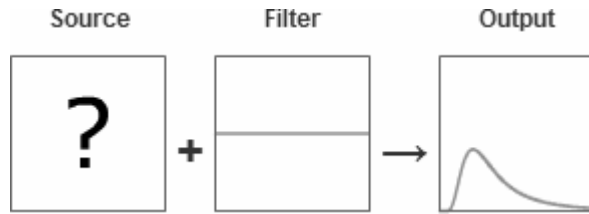
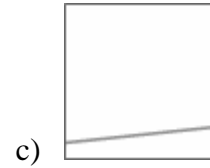
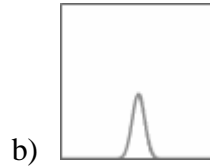
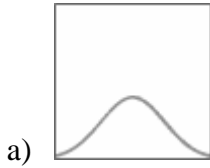
- a) ultraviolet
- b) blue
- c) visible (green)
- d) red
- e) infrared

Question 7: To get a good response, that is a strong measurement, from a very cool star, what kind of filters would be most useful?

- a) a filter which lets blue light pass through
- b) a filter which lets red light pass through
- c) a filter which lets green light pass through
- d) a filter which lets ultraviolet light pass through



Question 8: Which output below goes with the setup above?



Question 9: Which source below goes with the setup above?

