ARIZONA PHYSICS · UNIT 4 · 5 QUESTIONS

Light and Modern Physics — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Use hc = 1240 eV nm. A photon of wavelength 310 nm has energy**

- **A** 2 eV
- **B** 4 eV
- **C** 8 eV
- **D** 1 eV

Understand It with Pulse | Flag a mistake

2 **Light of frequency 3×10^{14} Hz travels at 3.0×10^{8} m/s. Its wavelength is**



A 100 nm

B 900 nm

C 1000 nm

D 300 nm

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3 **In hydrogen, level 2 has energy -3.40 eV and level 1 has energy -13.60 eV. A photon absorbed in a 1 to 2 transition has energy**

- A 3.40 eV
- B 13.60 eV
- C 10.20 eV
- D 17.00 eV

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4 **In the photoelectric effect, increasing the frequency of the light above the threshold mainly increases the**

- A maximum kinetic energy of each electron
- B number of photons only
- C wavelength of the light
- D mass of the metal

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5 **A diverging lens forms an image that is virtual, upright, and**

A larger than the object

B smaller than the object

C real and inverted

D at infinity

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ANSWER KEY

1. B
2. C
3. C
4. A
5. B

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