ARKANSAS PHYSICS · UNIT 4 · 10 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 **A sample starts with 64 grams of a radioactive isotope After three half lives, the mass remaining is**

- A 8 grams
- B 16 grams
- C 21 grams
- D 32 grams

Understand It with Pulse | Flag a mistake

2 **In an atom, electrons are found**

- A In the nucleus
- B Outside the nucleus
- C Only in protons
- D Only in neutrons

Understand It with Pulse | Flag a mistake

3 **The atomic number of an element equals its number of**

A Neutrons

B Electrons + neutrons

C Protons

D Mass units

Understand It with Pulse | Flag a mistake

4 **Beta radiation is best described as fast moving**

A Protons

B Neutrons

C Alpha particles

D Electrons

Understand It with Pulse | Flag a mistake

5 **Which type of radiation is most penetrating**

A Gamma

B Alpha

C Beta

D Infrared

Understand It with Pulse | Flag a mistake

6 **Fusion requires very high temperatures because nuclei must overcome**

A Gravity

B Electric repulsion between positive charges

C Friction

D Magnetic attraction

Understand It with Pulse | Flag a mistake

7 **A diverging lens always forms an image that is**

- A Real and larger
- B Real and smaller
- C Virtual and smaller
- D Virtual and larger

Understand It with Pulse | Flag a mistake

8 **The photoelectric effect supports the particle model of light because electrons are emitted**

- A At any frequency if light is bright
- B Only in darkness
- C After a long delay
- D Only above a threshold frequency

Understand It with Pulse | Flag a mistake

9 **Diffraction is most noticeable when light passes through an opening close in size to its**

A Wavelength

B Amplitude

C Speed

D Frequency in hertz

Understand It with Pulse | Flag a mistake

10 **A light ray hits a mirror at an angle of incidence of 42 degrees What is the angle of reflection in degrees**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. A
2. B
3. C
4. D
5. A
6. B
7. C
8. D
9. A
10. 42

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