NOVA SCOTIA ADVANCED PHYSICS 12 · UNIT E

Modern Physics and Radioactivity — Practice Test

Nova Scotia Advanced Physics 12 • 10 questions

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 **Light of frequency 400 hertz has photon energy 4 electronvolts. Light of double the frequency has photon energy, in electronvolts, of**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A nucleus has total binding energy 64 megaelectronvolts and 8 nucleons. The binding energy per nucleon, in megaelectronvolts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A nucleus has total binding energy 150 megaelectronvolts and 20 nucleons. The binding energy per nucleon, in megaelectronvolts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A mass defect of 3 atomic mass units releases energy at 931 megaelectronvolts per unit. The energy released, in megaelectronvolts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A mass defect of 0.25 atomic mass units releases energy at 931 megaelectronvolts per unit. The energy released, in megaelectronvolts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A sample has 6.25 percent of its original radioactive nuclei left. The number of half lives elapsed is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A sample has 3.125 percent of its original radioactive nuclei left. The number of half lives elapsed is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **The most penetrating common radiation is**

A gamma radiation

B alpha radiation

C beta radiation

D neutron radiation only

Understand It with Pulse | Flag a mistake

9 **A positron is the antiparticle of the**

A proton

B electron

C neutron

D photon

Understand It with Pulse | Flag a mistake

10 **In a nuclear equation the total mass number and total charge are**

A doubled

B halved

C conserved

D ignored

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	8	**5.**	232.75	**9.**	B
2.	8	**6.**	4	**10.**	C
3.	7.5	**7.**	5		
4.	2793	**8.**	A		

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