# BLITZ: Ch 28 Nuclear

## Form T-Z

**Name _____ Period ____**

***This is a Take Home Exam. You may use your notes but you may NOT use help from human beings.***

**EXPLAIN IN COMPLETE SENTENCES AND GIVE EXAMPLES:**

**You MUST HAND WRITE THIS EXAM!! NO TYPED PAPERS WILL BE ACCEPTED!**

### Define these terms and give and example:

1. Neutron.
2. Isotope.
3. Mass number.
4. Proton.
5. Beta particle.

### *** COMPLETE THESE EQUATIONS:

6. $_{45}Rh^{107}$ ---> $_{46}Pd^{107}$ + ?
7. $_{99}Es^{254}$ + $_{2}He^{4}$ ---> ? + $2\ _{0}n^{1}$
8. $_{6}C^{12}$ + ? ---> $_{102}No^{254}$ + $2\ _{0}n^{1}$
9. ? + $_{0}n^{1}$ ---> $_{94}Pu^{241}$
10. $_{1}H^{2}$ + $_{1}H^{2}$ ---> ? + $_{0}n^{1}$
11. $_{94}Pu^{239}$ + $_{0}n^{1}$ ---> ?
12. $_{92}U^{235}$ + $_{0}n^{1}$ ---> $_{59}Pr^{147}$ + ? + $3\ _{0}n^{1}$
13. $_{2}He^{4}$ + $_{13}Al^{27}$ ---> $_{14}Si^{30}$ + ?
14. $_{3}Li^{6}$ + $_{0}n^{1}$ ---> ? + $_{1}H^{3}$
15. $_{6}C^{12}$ + ? ---> $_{102}No^{245}$ + $2\ _{0}n^{1}$

### Define these terms and give and example:

16. Diagram a Nuclear Reactor and tell the function of its parts.
17. Diagram a Nuclear Power Plant and compare it to a coal fired power plant.
18. Explain how Radioactive Dating tells us the age of ancient artifacts.
19. Explain Critical Mass and describe how to make a nuclear bomb.
20. Explain how to separate the isotopes of Uranium.

**When finished, please STAPLE this exam onto your papers and turn in on due date.**