



Science Department Multiple Choice Answer Sheet

Test Topic: _____ Name: _____ Year: _____

Multiple Choice – 15 questions.

Circle your choice. If you change your mind, scrub your choice out and circle the one you want. If it is messy, clearly write your choice next to question.

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|-----|---|----------|----------|----------|-----|----------|----------|----------|----------|
| 1. | A | <u>B</u> | C | D | 11. | <u>A</u> | B | C | D |
| 2. | A | <u>B</u> | C | D | 12. | A | B | <u>C</u> | D |
| 3. | A | B | <u>C</u> | D | 13. | A | B | C | <u>D</u> |
| 4. | A | B | C | <u>D</u> | 14. | A | <u>B</u> | C | D |
| 5. | A | B | <u>C</u> | D | 15. | <u>A</u> | B | C | D |
| 6. | A | B | C | <u>D</u> | | | | | |
| 7. | A | <u>B</u> | C | D | | | | | |
| 8. | A | B | C | <u>D</u> | | | | | |
| 9. | A | B | <u>C</u> | D | | | | | |
| 10. | A | B | <u>C</u> | D | | | | | |

Written Section:

Write your answers for the written section below. Ask your teacher if you need more paper.

1 BONDS BREAK ①

2 FISSION - LARGE ATOM (RADIOISOTOPE) IS HIT BY A PARTICLE ①
- SPLITS INTO 2 SMALLER PARTICLES RELEASING ENERGY ①

Fusion - 2 SMALL ATOMS MOVING AT HIGH SPEED ①
- JOIN TO FORM A BIGGER ATOM AND GIVE OFF ENERGY ①
(matter → energy)

3 Al, Au, Ne, He, U, Fe

4 a) 8 b) 27g c) 16 d) 2
① ① ① ①

5 a) Isotope - Atom with same number of protons ①
But a different number of neutrons in nucleus ①

	^{C-12}	^{C-14}
b)	6 protons in nucleus	6 protons in nucleus
6	6 Neutrons in nucleus	8 Neutrons in nucleus
	6 Electrons in cloud $\frac{1}{2}$	6 Electrons in cloud $\frac{1}{2}$
	2 + 4 layers $\frac{1}{2}$	2 + 4 layers $\frac{1}{2}$

6 i) 5 days = 12 g (1) ii) 10 days = 6 g ①

7 a) neutrons collide with uranium nucleus ①
unstable nucleus splits releasing energy ①
and neutrons which hit other atoms ①

b) absorb neutrons to slow down / stop chain reaction ①

c) an uncontrolled chain reaction / meltdown