

SAT Chemistry Practice Test 33

1. The most active nonmetallic element is

- A. chlorine
- B. fluorine
- C. oxygen
- D. sulfur
- E.

2. The order of decreasing activity of the halogens is

- A. Cl, I, Br
- B. F, Cl, Br, I
- C. Cl, F, Br, I
- D. Cl, Br, I, F
- E.

3. A light-sensitive substance used on photographic films has the formula

- A. AgBr
- B. CaF₂
- C. CuCl
- D. MgBr₂
- E.

4. Sulfur dioxide is the anhydride of

- A. hydrosulfuric acid
- B. sulfurous acid
- C. sulfuric acid
- D. hyposulfurous acid
- E.

5. The charring action of sulfuric acid is due to its being

- A. a strong acid
- B. an oxidizing agent

C. a reducing agent

D. a dehydrating agent

E.

6. Ammonia is prepared commercially by the

A. decomposition of salts

B. arc process

C. combining of hydrogen and nitrogen gases(Haber process)

D. contact process

E.

7. A nitrogen compound that has a color is

A. nitric oxide

B. nitrous oxide

C. nitrogen dioxide

D. ammonia

E.

8. If a student heats a mixture of ammonium chloride and calcium hydroxide in a test tube, he will detect

A. no reaction

B. the odor of ammonia

C. the odor of rotten eggs

D. nitric acid fumes

E.

9. The difference between ammonia and the ammonium ion is

A. an electron

B. a neutron

C. a proton

D. hydroxide

E.

10. An important ore of iron is

- A. bauxite
- B. galena
- C. hematite
- D. smithsonite
- E.

11. A reducing agent used in the blast furnace is

- A. CaCO_3
- B. CO
- C. O_2
- D. SiO_2
- E.

12. The metal with the electron shell configuration of $[\text{Ar}] 3d^{10} s^1$ is

- A. Cu
- B. Ag
- C. Au
- D. Zn
- E. Al

13. The placement of the halogen family in the Periodic Table explains which of the following statements?

- I. The most active nonmetallic element in the periodic table is fluorine.
- II. The normal physical state of the halogens goes from a solid to a gaseous state as you go down the family.
- III. The halogen elements become ions by filling the outermost d orbital.

- A. I only
- B. II only
- C. I and II
- D. II and III
- E. I and III

14. Which of the following properties are attributed to most metals?

- I. They are conductors of heat and electricity.

II. They are malleable and ductile.

III. They are *all* solids at room temperature.

A. I only

B. II only

C. I and II

D. I and III

E. I, II, and III