

## Final Exam Review – Multiple Choice Style

Show work for any problem involving number! No work, no credit.

1. How many protons neutrons and electrons are in Zinc – 66?
- A) 30, 36, 30
  - B) 30, 33, 30
  - C) 30, 30, 36
  - D) 36, 30, 30
  - E) 30, 30, 30

- 
2. How many hydrogen atoms are present in the formula  $(\text{CH}_3)_2\text{CH}_2$ ?
- A) 5
  - B) 8
  - C) 10
  - D) 4
  - E) 7

- 
3. What is the correct formula for Sodium Nitride?
- A)  $\text{NaNO}_3$
  - B)  $\text{NaN}_3$
  - C)  $\text{Na}_3\text{N}$
  - D)  $\text{NaNO}_2$
  - E)  $\text{Na}_3\text{NO}_3$

- 
4. What element has similar properties to bromine?
- A) Se
  - B) S
  - C) Kr
  - D) F
  - E) Mg

- 
5. Which of the following has the most electrons?
- A)  $\text{Sr}^{2+}$
  - B) Kr
  - C)  $\text{Br}^-$
  - D)  $\text{Se}^{2-}$
  - E) Rb

- 
6. Which of the following is not a metal?
- A) Ca
  - B) K
  - C) Ti
  - D) Zn
  - E) Se

- 
7. Which of the following will have the smallest radius?
- A) Li
  - B)  $\text{Li}^{2+}$
  - C)  $\text{Li}^-$
  - D)  $\text{Li}^+$
  - E) Na

8. Which of the following is the smallest mass
- A)  $2.4 \times 10^3 \text{mg}$
  - B) 3g
  - C)  $1.2 \times 10^{-4} \text{Kg}$
  - D)  $3.2 \times 10^2 \text{cg}$
  - E) 3Kg

- 
9. What is the missing particle in the nuclear decay below
- $${}^{14}_6\text{C} \rightarrow \underline{\hspace{1cm}} + {}^{14}_7\text{N}$$
- A)  ${}^4_2\alpha$
  - B)  ${}^{-1}_1\beta$
  - C)  ${}^0_0\beta$
  - D)  ${}^2_2\alpha$
  - E)  ${}^{-1}_0\beta$

- 
10. A substance has a half-life of three weeks if you have 0.5g of the sample after one full school year what amount did you start with?
- A) 190g
  - B) 50g
  - C) 130g
  - D) 250g
  - E) 0.54g

- 
11. What is the electron configuration of carbon
- A)  $1s^2 2s^2 2p^3$
  - B)  $1s^2 2s^2 2p^4$
  - C)  $1s^2 2s^2 2p^2$
  - D)  $1s^2 2s^2$
  - E)  $1s^2 2s^2 2p^1$

- 
12. How many protons and electrons are in the calcium ion
- A) 20p 20e
  - B) 20p 18e
  - C) 18p 18e
  - D) 18p 20e
  - E) 20p 22e

- 
13. By what process does uranium decay to thorium?
- A) Proton
  - B) Neutron
  - C) Beta
  - D) Alpha
  - E) Positron

- 
14. Which of the following ions has a 3+ charge
- A) N
  - B) Br
  - C) Sr
  - D) K
  - E) Al

## Final Exam Review – Multiple Choice Style

Show work for any problem involving number! No work, no credit.

15. Put these elements in order of greatest to smallest electronegativity (Al, Mg, F)
- A) F, Al, Mg
  - B) Mg, Al, F
  - C) F, Mg, Al
  - D) Al, F, Mg
  - E) Mg, F, Al
- 
16. Which of the following is a covalent bond
- A) KNO<sub>3</sub>
  - B) CaO
  - C) NH<sub>4</sub>I
  - D) NaCl
  - E) C<sub>2</sub>H<sub>6</sub>
- 
17. What is the difference between ionic and covalent bonds
- A) Ionic and covalent bonds are the same
  - B) Ionic bonds share protons and covalent bonds have isotopes
  - C) Ionic bonds have ions Covalent bonds share protons
  - D) Ionic bonds have ions and covalent bonds share electrons
  - E) Ionic bonds share electrons Covalent bonds have ions
- 
18. What type of matter is Yttrium
- A) Nonmetal
  - B) Halogen
  - C) Metal
  - D) Nonmetal
  - E) Metalloid
- 
19. A particular radioisotope has a half-life of 9 months. What percentage of the isotope will remain after 45 months
- A) 3.125%
  - B) 50%
  - C) 25%
  - D) 1.25%
  - E) 91.17%
- 
20. Which of the following compounds is polar
- A) CH<sub>4</sub>
  - B) NH<sub>3</sub>
  - C) NaNO<sub>3</sub>
  - D) CO<sub>2</sub>
  - E) N<sub>2</sub>

1.	A
2.	B
3.	C
4.	D
5.	E
6.	E
7.	D
8.	C
9.	B
10.	A
11.	C
12.	B
13.	D
14.	E
15.	A
16.	E
17.	D
18.	C
19.	A
20.	B

Correct your work. Don't just mark the ones you got wrong, you need to FIX them with your GREEN pen. Fill out the table to the right for the ones you missed. If you didn't miss any, pick three that you thought were hardest and instead of writing the "why it was missed" part, write why someone *might* have missed it. What was tricky about it, or what makes it hard for some people, or what do you need to be careful of or remember when doing a problem like this

<u>Q #</u> <u>missed</u>	<u>Topic</u> <u>missed</u>	<u>Why was</u> <u>it missed?</u>