

Mock 1st Periodical Exam
2nd Term 2014

1- Which is an example of a physical change?

- A) The milk in the box left on the table becomes sour after a few days.
- B) The bit of scrap metal dissolves when placed in the container of acid.
- C) The gas is cooled until it finally becomes a liquid.
- D) A piece of paper burns in air with a smoky flame.

2- Which element is a nonmetal?

A) K

B) Co

C) Br

D) Al

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3- Gold has a density of 0.0193 kg/cm^3 . What would be the volume occupied by 77.2 g sample of gold?

A) 4 cm^3

B) 5 cm^3

C) 6 cm^3

D) 7 cm^3

4- A heterogeneous material is defined as being:

A) An element.

B) Any material with uniform composition.

C) Portions of a sample have different composition and properties.

D) More than one of these.

5- Which of the following is a mixture?

A) gold

B) air

C) iron

D) helium

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6- Find which of the following represents the highest temperature.

A) 20°F

B) 0°C

C) 270 K

D) 0°F

7- Which of the following is false about a neutron?

A) It has a positive charge.

B) It is much more massive than an electron.

C) It is often associated with protons.

D) It is more difficult to detect than a proton or an electron.

8) The isotope represented by ${}^{13}_{6}\text{C}$ is named

A) carbon-6

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C) carbon-13

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9- Which of the following statements about matter is FALSE?

- A) Matter is identified as anything that occupies space and has no mass
- B) The properties of matter are determined by the atoms and molecules that compose it
- C) Matter can be classified as solid, liquid, or gas
- D) The atoms and molecules in the crystalline solid are in patterns with long-range, repeating order

10- How would you describe the nucleus?

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- B) Mostly empty space, positively charged
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11- Temperature is a measure of _____.

- A) Average thermal energy of molecules.
- B) Total potential energy of molecules.
- C) Average potential energy of molecules.
- D) Average kinetic energy of molecules.

12- A child had a body temperature of 102 °F. What is her body temperature in °C?

- A) 24.6 °C
- B) 35.8 °C
- C) 38.88 °C
- D) 74.44 °C

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- A) noble Gas
- B) halogen
- C) alkali Metal
- D) alkaline Earth Metal

14- Which of the following elements will most likely form an ion with a +1 charge?

- A) Cl
- B) Na
- C) Mg
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15- Which one of the following elements is a poor conductor of heat and electricity?

- A) copper
- B) fluorine
- C) iron
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16) How many moles and how many atoms of aluminum are in a sample weighing 16.2 g?

A) 0.60 mol, 10.02×10^{-25} atoms

C) 1.66 mol, 10.02×10^{-24} atoms

B) 0.60 mol, 3.61×10^{23} atoms

D) 437 mol, 0.09×10^{-23} atoms

17) Group 2A elements are called

A) alkali metals.

B) alkaline earth metals.

C) alkaline salts.

D) beryllium metals.

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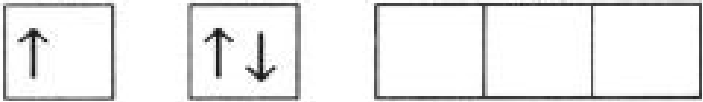

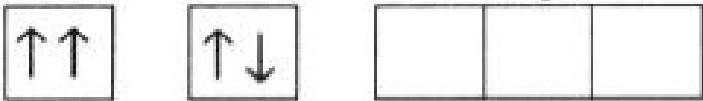

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18) Which electron configuration represents a violation of Hund's rule for an atom in its ground state?

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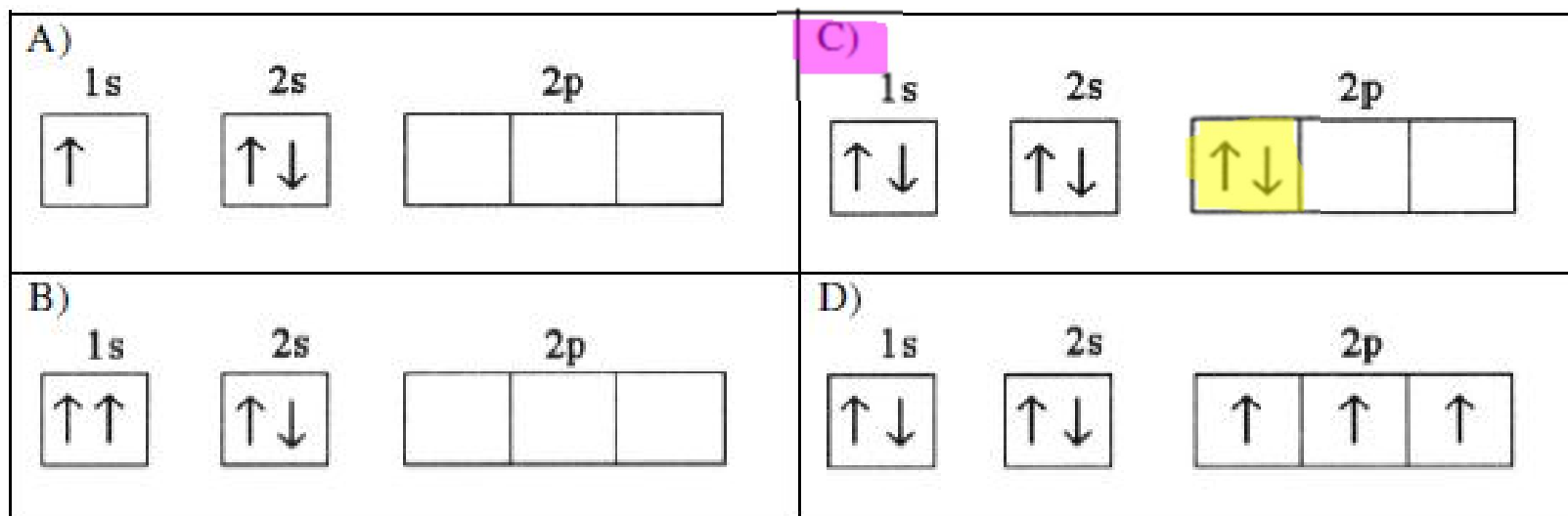
19) Each p-subshell can accommodate a maximum of _____ electrons.

- A) 6 B) 2 C) 10 D) 3

20) Atomic radius generally decreases as we move _____.

- A) down a group and from right to left across a period
B) up a group and from left to right across a period
C) down a group and from left to right across a period
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