**Chem 1 Basic Atomic Structure Test Practice Questions: In class**

**1**.

The atoms in an element are:

All the same type

Two types joined together

About a hundred different types

**2**.

An atom consists of:

An electron surrounded by a nucleus

A nucleus containing electrons

A nucleus surrounded by electrons

**3**.

What is the correct chemical symbol for sodium?

NA

Na

na

**4**.

What are the groups in the periodic table?

A row of similar elements

A column of similar elements

The boxes in the table

**5**.

How many protons, neutrons and electrons are there in a Al-27 atom?

13 protons, 27 neutrons and 14 electrons

13 protons, 27 neutrons and 13 electrons

13 protons, 14 neutrons and 13 electrons

Show your calculation for neutrons:

**6**.

Which of the following does the nucleus contain?

protons and electrons

protons and neutrons

neutrons and electrons

**7**.

Which of the following statements is correct?

Protons are positively charged and neutrons are negatively charged.

Protons are negatively charged and electrons are positively charged.

Protons are positively charged and electrons are negatively charged.

**8**.

What is the atomic number of an atom?

The number of atoms it contains.

The number of protons it contains.

The number of neutrons it contains.

**9**.

Which of the following statements is true of an atom?

The number of protons is always equal to the number of neutrons.

The number of protons is always equal to the number of electrons.

The number of neutrons is always equal to the number of electrons.

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|  |
| 11. He has an atomic number of 2 and mass number of 4. The number of electrons in a neutral atom of He is \_\_\_\_   |  |  | | --- | --- | |  | 4 | |  | 2 | |  | 6 | |
|  |
| 12. Atoms with the same number of protons but different number of neutrons are called \_\_\_\_\_.   |  |  | | --- | --- | |  | ions | |  | nuclei | |  | isotopes | |
| 13. The mass of a proton is \_\_\_\_\_.   |  |  | | --- | --- | |  | 1/1840 amu | |  | 2 amu | |  | 1 amu | |
| 14. The number of protons in a neutral atom will be equal to the number of \_\_\_\_\_\_\_.   |  |  | | --- | --- | |  | neutrons | |  | electrons | |  | electrons + neutrons | |
|  |
| 15. What is the mass number of a Cl atom which has 17 protons and 18 neutrons?   |  |  | | --- | --- | |  | 17 | |  | 18 | |  | 35 | |
| 16. The mass of a neutron is \_\_\_\_\_\_\_\_.   |  |  | | --- | --- | |  | 1/1840 amu | |  | 2 amu | |  | 1 amu | |
| 17. Bromine (Br) has 35 protons and a rounded atomic mass of 80 amu. What is the number of neutrons in an atom of Br?   |  |  | | --- | --- | |  | 35 | |  | 45 | |  | 80 | |
| 18. The negatively charged particles of an atom are the \_\_\_\_\_\_.   |  |  | | --- | --- | |  | electrons | |  | protons | |  | neutrons | |
| 19. Most of the atom is \_\_\_\_\_\_\_\_\_.   |  |  | | --- | --- | |  | protons | |  | nucleus | |  | empty space | |
| 20. The subatomic particles found in the nucleus of an atom are:   |  |  | | --- | --- | |  | protons and neutrons | |  | protons and electrons | |  | neutrons and electrons | |
| 21. The mass number of an atom is the sum of the numbers of the \_\_\_\_\_\_\_.   |  |  | | --- | --- | |  | protons and neutrons | |  | electrons and protons | |  | neutrons and protons | |
| 22. An atom as a whole is \_\_\_\_\_\_\_.   |  |  | | --- | --- | |  | electrically neutral (has no charge). | |  | positively charged. | |  | negatively charged. | |
| 23. The particles with no charge in an atom are the \_\_\_\_\_\_\_.   |  |  | | --- | --- | |  | electrons | |  | protons | |  | neutrons | |
| 24. The relative mass of an electron is \_\_\_\_\_.   |  |  | | --- | --- | |  | 1 amu | |  | O or 1/1840 amu | |  | 2 amu | |
|  |
| 25. The atomic number of the isotope O-18 atom is 8. Its mass number is 18. The number of neutrons in this isotope \_\_\_\_.   |  |  | | --- | --- | |  | 8 | |  | 10 | |  |  | |  | 18 | |
| 26. What is the number of electrons of a Cl atom which has 17 protons and 18 neutrons?   |  |  | | --- | --- | |  | 17 | |  | 18 | |  | 35 | |