Name _____ Date _____

CHEMICAL BONDING

Answer the following questions.

The notation for sodium chloride, NaCl, stands for one
(a) formula unit.
(b) crystal.
(c) atom.
(d) molecule.

In a crystal of an ionic compound, each cation is surrounded by a number of
(a) molecules.
(b) positive ions.
(c) dipoles.
(d) negative ions.

Compared with the neutral atoms involved in the formation of an ionic compound, the crystal lattice that results is
(a) higher in potential energy.
(b) lower in potential energy.
(c) equal in potential energy.
(d) unstable.

The lattice energy of compound A is greater in magnitude than that of compound B. What can be concluded from this fact?
(a) Compound A is not an ionic compound.
(b) It will be more difficult to break the bonds in compound A than those in compound B.
(c) Compound B has larger crystals than compound A.
(d) Compound A has larger crystals than compound B.

The forces of attraction between molecules in a molecular compound are generally
(a) stronger than the attractive forces among formula units in ionic bonding.
(b) weaker than the attractive forces among formula units in ionic bonding.
(c) approximately equal to the attractive forces among formula units in ionic bonding.
(d) equal to zero.

Describe the force that holds two ions together in an ionic bond.
The force of attraction between unlike charges holds a negative ion and a positive ion together in an ionic bond.

What type of energy best represents the strength of an ionic bond?
lattice energy