Higher Chemistry

Ionic / Covalent Bonding

- 1: Which of A E describes a property of an ionic compound ?
 - A: It will dissolve in hexane.
 - B: It will conduct when solid.
 - C: It has weak forces of attraction between its molecules.
 - D: It will be crystalline.
 - E: It is usually a liquid or a gas at room temp.
- 2: Which of the following compounds has the greatest degree of ionic bonding?
 - A: Sodium chloride.
 - B: Potassium fluoride.
 - C: Caesium fluoride.
 - D: Lithium sulphide.
 - E: Magnesium bromide.
- 3: Which of the following is a covalent compound ?
 - A: Ammonia (NH₃)
 - B: Magnesium oxide.
 - C: Sodium chloride.
 - D: Barium fluoride.
 - E: Copper (II) sulphate.
- 4: Which of the following explains why molten lithium fluoride can conduct electricity?
 - A: Free electrons can carry electricity in the molten salt.
 - B: Lithium, being metallic, can conduct electricity.
 - C: The fluoride ions can pass an electron directly to the lithium ions in the molten salt.
 - D: Fluorine being non-metallic can conduct electricity.
 - E: The ions in lithium fluoride are free to move

- 5: Which of the following is a substance which can dissolve in water?
 - A: Sodium chloride.
 - B: Silicon dioxide.
 - C: Graphite.
 - D: Iodine.
 - E: Hydrogen.
- 6: Which of the following, when liquid, will release hydrogen at the positive electrode during electrolysis?
 - A: Lithium hydride.
 - B: Hydrochloric acid.
 - C: Water.
 - D: Hydrogen fluoride.
 - E: Methane.
- 7: Which of the following has the highest melting point ?
 - A: Silicon dioxide
 - B: Carbon dioxide.
 - C: Sulphur dioxide.
 - D: Nitrogen dioxide.
 - E: Water
- 8: Which of the following materials, being very hard, would make a good abrasive?
 - A: Glucose.
 - B: Sodium chloride.
 - C: Phosphorus chloride.
 - D: Silicon carbide.
 - E: Hydrogen bromide.
- 9: Which of the following is a giant molecule? A: Ammonia.
 - B: Hydrogen fluoride.
 - C: Water.
 - D: Silicon dioxide.
 - E: Magnesium oxide.