**Salahaddin University Subject: Molecular bonding**



**College of Education Date: 30/3/2023**

**Department of Chemistry Time: 1 Hr.**

**Level: 1st -stage Lecturer: Beriwan**

**Name:**

**Midterm Examinations- 2nd Semester / 2022-2023**

**Q1 // A- Define the following of each statements briefly: (8M)**

1. **Ionization energy:**

1. **Electronegativity:**

1. **Hybridization:**
2. **Atomic radius:**

**B/ Fill in the blanks: (10M)**

1. **The arrangement of increase the atomic size for Ca, Be, Sr, Mg are…………**
2. **There are three major types of bonding a ………, b. ……. c……….. .**
3. **The type of hybride of C2H2 is ………**
4. **Moseley arranged the elements according to…………., While Mendeleev arranged the elements according to …………… in the periodic table.**
5. **………… amount of energy released when an electron is added to it to form a negative ion.**
6. **When two atoms attached to center atom in type of (AB3), without unshared pair electron (lone pair), the bond angle is equal ……… and the shape of molecule is ……….**

**Q2/ What are the type of hybride and geometrical shapes of each molecules by using (VBT) and (VSEPR) theory:**

**(12M)**

1. **BeCl2**

1. **SF6**

1. **PCl5**

**------Good Luck--------**

**Lec. Beriwan Muhamad**