**Palestine TechnicalUniversity-Kadoorie**

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| **Student's Name: …………………**  **Student's Number: ……………...**  **Due date: 6/9/2024** | **img0002**  **In-complete Homework**  **Summer Semester2023/2024** | **Course's Name: General Chemistry I**  **Course's Number: 15050101**  **Number of pages:2**  **Number of questions : 4** |

1. arrange the following ions in order of increasing ionic radius: Cl**-**, Ca+2, P-3
2. Using electronegativities, decide which of the following bonds is most polar:

C—O, C—S, H—Br.

1. Write the electron-dot formula of carbon dioxide, CO2, and sulfur tetrafluoride, SF4.
2. Draw the Lewis structure of caynate ion (OCN-) -including possible resonance forms-

and use formal charges to determine the most stable one?

1. Use bond energies (listed in table 9.5) to estimate the enthalpy change for the combustion of ethylene, C2H4, according to the equation

C2H4(g) + 3O2(g) → 2CO2(g) + 2H2O(g)