**University of Salahaddin**

**College of Science**

**Department of Biology**

**Q1/ Describe the following :-**

Sublimation ,freezing point

Q2/Define Boiling point and melting point

**Q3/ A/How are impurities removed during re-crystallization? Write properties of the best solvent for recrystallization of solid compound.**   **Q4/** Write the main factors can be influence melting point determination.

**Q5/** The freezing point of (8ml) of dioxine is equal to (–0.5C0), when we put (0.4gm) of camphor the freezing point will be decreased to( -4C0 ), calculate M.wt of the camphor. Kf =5.12

**Q6/Give the reason**

1. **Using chloroform to extract caffeine.**

Q7/ Why Using water to extract caffeine from tea leaves.

**Q8/ Define the following :-**

1. Standard solution

2. Boiling point

Q9/Use hot water to extract the caffeine from tea leaves.

Q10/ Not use NaoH as the primary standard.

**Q11/** How are impurities removed during Re-crystallization?

**Q12/** The freezing point of (8ml) of dioxine is equal to (–0.5C0), when we put (0.4gm) of camphor the freezing point will be decreased to( -4C0 ), calculate M.wt of the camphor. Kf =5.12

**Q13/Write the main differences between End point and Equivalence point ?**

Q14/ Write a short report about precipitation reaction.

Q 15/Write the types of hardness, the methods of releasing them.

Q16 / Describe the followings:

Purification melting point

Q17/ Write two methods for purification of solid materials.

Q18/ why does diet soda freeze at a higher temperature that regular soda?

Q19/ In order to find the molar mass of an unknown compound, a research scientist prepared a solution of 0.930 g of unknown in 125 g of a solvent. The pure solvent had a freezing point of 74.2 °C, and the solution had a freezing point of 73.4 °C. Given the solvent’s freezing-point depression constant, *Kf* = 5.50 °C/*m*, find the molar mass of the unknown.

Q20/ Write aim of re-crystallization.