UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Eighth Semester – Spring 2022

Roll No. .....

Paper: Inorganic Chemistry (Sp. Theory-I) **Course Code: CHEM-425** **Time: 3 Hrs. Marks: 60**

THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Write short answers to the following questions. (15x2=30)

i. How does the solubility of ionic compounds depend on lattice energy?
ii. Write any two applications of Hess's law.
iii. What is Born Mayer equation?
iv. What is the principle of flame photometry?
v. Mention any two advantages of AAS.
vi. How plasma is generated in ICP?
vii. What is Talc?
viii. Explain uses of zeolites in daily life?
ix. Write two methods of preparation of tetraborane.
x. Write properties of phosphazene.
xi. What are cage compounds?
xii. Mention applications of inorganic conducting polymers.
xiii. Explain bonding situation in diborane.
xiv. Write uses of mica.
xv. What are zeolites?

Q.2. Write detailed answers to the following questions. (6x5=30)

i. Derive Born-Lande equation for the calculation of lattice energy.
ii. What are the main ionization and excitation mechanisms that occur in ICP?
iii. Explain the working of laminar flow burner.
iv. Discuss chemistry of homocyclic system of selenium.
v. Write a note on borazine.
vi. Discuss applications and uses of silicates.