U.G. 4th Semester Examination – 2020
(BLENDED MODE)
CHEMISTRY
[PROGRAMME COURSE]
Course Code: CHEMGP-4
(Physical & Inorganic Chemistry)
[Practical]

Full Marks: 20 Time: 2 Hours

The figure in the right-hand margin indicate marks.

Answer any **four** questions: **5**×4 = 20

1. a) What Nernst Distribution Law? What are the limitations of this law? **1 +1**

   b) Discuss the principle of determination of K_{eq} for I_2 (aq) + I^- (aq) = I_3^- (aq) using partition coefficient between water and CCl_4. **3**

2. a) Define specific and equivalent conductance. **2**

   b) Why conductometric experiments are not performed using direct current? Why electrodes of conductivity cells are platinized? **2 + 1**

3. a) Clearly draw and discuss the conductometric titration curves of i) strong acid vs. strong base, ii) weak acid vs. strong base. **5**

4. a) What are the advantages of potentiometric titration? What is salt bridge? What is it function? KCl and not NaCl is used in a salt bridge. Explain. **5**

5. a) What is complexometric titration? Name and draw the structure of a complexing agent? **2 + 1**

   b) Is EDTA a primary or secondary standard substance? Justify your answer. **2**

6. a) Discuss the principle of estimation of Zn(II) ions by standard EDTA solution. **3**

   b) Name the metal-indicator used in this titration. **2**