



# International Islamic University Chittagong

## Department of Pharmacy

Program: B. Pharm (Hons)

Examination: Final

Session: spring-2019

Course Code: Pharm-3609

Course Title: Pharmaceutical Analysis-II

Full Marks: 50

Time: 2 Hours and 30 Minutes

### Group A (Marks: 20)

*Answer any two questions*

1. a) Discuss the advantages, disadvantages & application of polarography. 5  
b) Explain the polarographic maxima with a suitable graph. How can you suppress the maxima? 3  
c) List the parts of instrumentation of polarography. 2
2. a) Illustrate the current-voltage relationship using a polarogram. 3  
b) What do you mean by half wave potential? Describe its importance. 4  
c) What is oxygen wave? How can you overcome it? 3
3. a) Briefly state advantages and disadvantages of electrodes used in amperometry. 4  
b) Explain the titration curves of different types of amperometric titration. 4  
c) Briefly discuss the instrumentation of amperometric titration. 2

### Group B (Marks: 30)

*Answer any three questions*

4. a) Define equivalent conductance. What is the effect of temperature on conductance of ions? 3  
b) Discuss the consideration and advantages of conductometric titration. 3  
c) Depict the conductometric titration curves of different acid-base titrations. 4
5. a) Deduce the relationship between pH and the cell potential. 4  
b) Briefly describe the construction of glass electrode. 4  
c) What do you mean by dead stop titration? 2
6. a) Explain the basic principle of thin layer chromatography. 3  
b) What are the components of TLC system? 4  
c) What is  $R_f$  value? Mention its significance. 3
7. a) What is HPLC? 1  
b) Schematically show a high performance liquid chromatographic instrument and label its various components. 3  
c) Briefly write down the functions of HPLC column and detector. 4  
d) Highlight the applications of HPLC. 2