



ELIZADE UNIVERSITY, ILARA – MOKIN, ONDO STATE, NIGERIA  
DEPARTMENT: PHYSICAL AND CHEMICAL SCIENCES  
FIRST SEMESTER EXAMINATIONS: 2019/2020 ACADEMIC SESSION B  
COURSE CODE: CHM 207 COURSE TITLE: EXPERIMENTAL CHEMISTRY I  
HOD's SIGNATURE

DURATION: 3 HOURS

*INSTRUCTIONS: ATTEMPT ALL QUESTIONS*

### QUESTION ONE

- A. What effect will drying out the silica gel have on the partitioning of your components in column chromatography?
- B. What instrument will you employ to remove a hot crucible from the furnace?
- C. Why do you carry out solubility test of organic compounds in mineral acids and alkalis?

### QUESTION TWO

- A. **J** is an aqueous solution of  $\text{Pb}^{+2}$ ,  $\text{Al}^{+3}$  and  $\text{Cu}^{+2}$ . Perform suitable chemical tests to identify the cations present.
- B. **P, F and Z** are alcoholic solutions of carboxylic acid, aromatic amine and a carbonyl.. **BUT NOT NECESSARILY IN THAT ORDER.** Perform suitable chemical tests to **IDENTIFY AND CORRECTLY LABEL THE SAMPLES**