



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**Plot 91, Cadastral Zone, Nnamdi Azikwe Express Way, Jabi Abuja**  
**FACULTY OF SOCIAL SCIENCES**  
**DEPARTMENT OF PEACE AND CONFLICT RESOLUTION**  
**2024 1 EXAMINATION**

**COURSE CODE: PCR 715**

**COURSE TITLE: INTRODUCTION TO CONFLICT RESOLUTION PROCESSES 1**

**CREDIT UNIT: 3**

**TIME ALLOWED: 3 HOURS**

**INSTRUCTIONS: ANSWER ANY FOUR QUESTIONS**

1. (a) Vividly describe the term Alternative Dispute Resolution (ADR) (7.5 marks)  
(b) State the basic ADR processes (10 marks)
2. How important is communication in conflict resolution? (17.5 marks)
3. (a) Define international law (5 marks)  
(b) Enumerate and explain types of international law (12.5 marks)
4. What are the basic standard of international and humanitarian principles (17.5 marks)
5. Outline and explain the five essential elements of the Early Warning Process (17.5 marks)
6. (a) Conflict resolution strategies and skills can be divided into three types. Name them (6 marks)  
(b) What are the mediation steps to prevent conflict? (11.5 marks)

## QUESTION TWO

- 2ai.) Differentiate between positive and negative correlation. (4 marks)
- aii.) Describe two application of regression analysis (3 marks)
- bi.) What is a potentiometer, and how is it different from a pH meter? (4 marks)
- bii) How is the Nernst equation relevant to potentiometric measurements? (2 marks)
- c. Describe potentiometric measurements for analyte determination. (2 marks)
- cii. Mention three applications of potentiometric measurements (3 marks)
- d. What is electroanalytical chemistry? (2 marks)

## QUESTION THREE

- 3a. What is the difference between DSC and differential thermal analysis (DTA)? (3 marks).
- b. What are conductors? Describe the two classes of conductors. (5 marks)
- c. Explain the following terms and give two examples of each- strong electrolytes, weak electrolytes and non electrolytes (6 marks)
- d. What is potential in 0.01 M  $\text{Fe}^{3+}$  solution titrated 25% with 0.0112 M  $\text{Ti}^{3+}$ ?  $E_0\text{Fe}^{3+}/\text{Fe}^{2+} = 0.77 \text{ V}$ ,  $E_0\text{Ti}^{4+}/\text{Ti}^{3+} = 0.130 \text{ V}$  (6 marks)

## QUESTION FOUR

- 4ai. List the 4 types of sweeps in stripping voltammetry (4 marks)
- aii.) Explain the main steps involved in the stripping process of voltammetry (2 marks)
- b.) Mention two advantages of stripping analysis is an analytical technique? (4 marks)
- c. Sketch and label the diagram that shows the 4 basic steps in anodic stripping voltammetry. (6 marks)
- di. What is a voltamogram. (2 marks)
- dii. Sketch a voltammogram (2 marks)

## QUESTION FIVE

- 5a. A proposed method for the determination of the chemical oxygen demand of wastewater was compared with the standard method. The following results ( $\text{mg l}^{-1}$ ) were obtained for a sewage effluent sample;  
Standard method: mean = 72; standard deviation = 3.31  
Proposed method: mean = 72; standard deviation = 1.51  
Eight determinations were made for each method. Is the precision of the proposed method significantly greater than that of the standard method? (4 marks)
- b. Discuss the following terms used in gas chromatography
- i. carrier gas    ii. Stationary phase    iii. retention time (6marks)
- c) Give three advantages and two disadvantages of Size-exclusion chromatography (5 marks)