

UNIT TEST OUTLINE: ELECTROCHEMISTRY

Part A: Multiple Choice [30 marks]

Thirty multiple-choice questions covering any material encountered in this unit of study.

Part B: Free Response [30 marks]

Six questions following the outline below.

- [5] 1. For given redox reactions, write the reduction and oxidation half reactions and state whether or not the reaction is spontaneous.
See [Lesson 1](#) and [Lesson 6](#)
Example: Textbook page 622 #1
- [5] 2. Balance a redox reaction occurring in acidic solution using the half-reaction method. You must write the balanced half reactions and the balanced overall equation.
See [Lesson 5](#)
Example: Textbook page 616 #1(b)
- [5] 3. Balance a redox reaction occurring in basic solution using the half-reaction method. You must write the balanced half reactions and the balanced overall equation.
See [Lesson 5](#)
Example: Textbook page 616 #2
- [3] 4. Use a redox table to predict the reaction that occurs in a mixture of substances.
See [Lesson 6](#)
Examples: Textbook page 622 #3, 4
- [3] 5. Use a redox table to predict the reaction that occurs in a mixture of substances.
See [Lesson 6](#)
Examples: Textbook page 622 #3, 4
- [9] 6. Given a description or cell notation, draw and analyse a galvanic cell (label the parts including the anode and cathode; write the half-reaction occurring at each electrode; show the flow of electrons and migration of ions; write the equation for the net cell reaction; calculate the standard cell potential).
See [Lesson 7](#)
Examples: [Practice: Galvanic Cells](#)