NOVA SCOTIA ADVANCED CHEMISTRY 12 · UNIT D

# Electrochemical Changes — Practice Test

**Nova Scotia Advanced Chemistry 12 • 25 questions**

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A current of 2 amperes flows for 5 minutes. The charge, in coulombs, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A current of 3 amperes flows for 10 minutes. The charge, in coulombs, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A current of 5 amperes flows for 2 minutes. The charge, in coulombs, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Two identical cells each of potential 1.1 volts are connected in series. The total potential, in volts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **Two identical cells each of potential 0.76 volts are connected in series. The total potential, in volts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **Two identical cells each of potential 1.56 volts are connected in series. The total potential, in volts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **1 moles of electrons deposit silver, molar mass 108 grams per mole, from silver ions needing 1 electron each. The mass deposited, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **2 moles of electrons deposit silver, molar mass 108 grams per mole, from silver ions needing 1 electron each. The mass deposited, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **0.5 moles of electrons deposit silver, molar mass 108 grams per mole, from silver ions needing 1 electron each. The mass deposited, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **1 moles of electrons flow in 9650 seconds. Using 96500 coulombs per mole, the current, in amperes, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **2 moles of electrons flow in 19300 seconds. Using 96500 coulombs per mole, the current, in amperes, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **1 moles of electrons flow in 19300 seconds. Using 96500 coulombs per mole, the current, in amperes, is**

ANSWER

Understand It with Pulse | Flag a mistake

13 **64 grams of copper, molar mass 64 grams per mole, are deposited from copper ions needing 2 electrons each at a current of 20 amperes. Using 96500 coulombs per mole, the time, in seconds, is**

ANSWER

Understand It with Pulse | Flag a mistake

14 **128 grams of copper, molar mass 64 grams per mole, are deposited from copper ions needing 2 electrons each at a current of 10 amperes. Using 96500 coulombs per mole, the time, in seconds, is**

ANSWER

Understand It with Pulse | Flag a mistake

15 **32 grams of copper, molar mass 64 grams per mole, are deposited from copper ions needing 2 electrons each at a current of 10 amperes. Using 96500 coulombs per mole, the time, in seconds, is**

ANSWER

Understand It with Pulse | Flag a mistake

16 **10 amperes flow for 9650 seconds depositing zinc, molar mass 65 grams per mole, from ions needing 2 electrons each. Using 96500 coulombs per mole, the mass deposited, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **20 amperes flow for 9650 seconds depositing zinc, molar mass 65 grams per mole, from ions needing 2 electrons each. Using 96500 coulombs per mole, the mass deposited, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **10 amperes flow for 19300 seconds depositing zinc, molar mass 65 grams per mole, from ions needing 2 electrons each. Using 96500 coulombs per mole, the mass deposited, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **The standard cell potential is found under standard conditions of**

A 1 mole per litre solutions and 298 kelvin

B any concentration

C 0 kelvin

D 100 degrees Celsius

Understand It with Pulse | Flag a mistake

20 **A fuel cell converts chemical energy directly into**

A heat only

B electrical energy

C light only

D sound

Understand It with Pulse | Flag a mistake

**21** **In electrolysis of molten lead bromide, bromine gas forms at the**

- A cathode
- B battery
- C anode
- D salt bridge

Understand It with Pulse | Flag a mistake

**22** **The Faraday constant is about**

- A 9650 coulombs per mole
- B $6 \times 10^{23}$ coulombs
- C 1 coulomb per mole
- D 96500 coulombs per mole of electrons

Understand It with Pulse | Flag a mistake

**23** **A rechargeable cell differs from a primary cell because its reaction is**

- A reversible
- B spontaneous only
- C non spontaneous only
- D faster

Understand It with Pulse | Flag a mistake

**24** **Corrosion of iron is an electrochemical process that needs**

- A acid only
- B oxygen and water
- C heat only
- D salt only

Understand It with Pulse | Flag a mistake

25 **In a concentration cell, the two half-cells contain the same electrode in solutions of**

A different ions at the same concentration

B the same ion at the same concentration

C the same ion at different concentrations

D different ions at different concentrations

Understand It with Pulse | Flag a mistake

# ANSWER KEY

| | | | | | |
|---|---|---|---|---|---|
| **1.** | 600 | **10.** | 10 | **19.** | A |
| **2.** | 1800 | **11.** | 10 | **20.** | B |
| **3.** | 600 | **12.** | 5 | **21.** | C |
| **4.** | 2.2 | **13.** | 9650 | **22.** | D |
| **5.** | 1.52 | **14.** | 38600 | **23.** | A |
| **6.** | 3.12 | **15.** | 9650 | **24.** | B |
| **7.** | 108 | **16.** | 32.5 | **25.** | C |
| **8.** | 216 | **17.** | 65 | | |
| **9.** | 54 | **18.** | 65 | | |

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