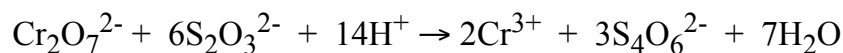


Name:**Score:** 0 / 24 points (0%) [1 open-ended question not graded]**C20****Multiple Choice***Identify the choice that best completes the statement or answers the question.*

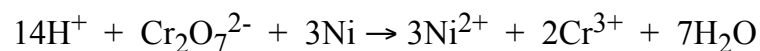
1. _____ is reduced in the following reaction:



- a. Cr^{6+}
- b. S^{2+}
- c. H^+
- d. O^{2-}
- e. $\text{S}_4\text{O}_6^{2-}$

ANSWER: A**POINTS:** 0 / 1

2. Which substance is serving as the reducing agent in the following reaction?




- a. Ni
- b. H^+
- c. $\text{Cr}_2\text{O}_7^{2-}$
- d. H_2O
- e. Ni^{2+}

ANSWER: A**POINTS:** 0 / 13. What is the oxidation number of chromium in $\text{Cr}_2\text{O}_7^{2-}$ ion?


- a. +3
- b. +12
- c. +7
- d. +6
- e. +14

ANSWER: D**POINTS:** 0 / 1

-  _____ 4. What is the oxidation number of potassium in KMnO_4 ?
- 0
 - +1
 - +2
 - 1
 - +3


ANSWER: B

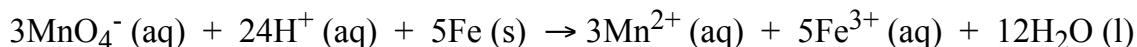
POINTS: 0 / 1

-  _____ 5. The balanced half-reaction in which chlorine gas is reduced to the aqueous chloride ion is a _____ process.
- one-electron
 - two-electron
 - four-electron
 - three-electron
 - six-electron

ANSWER: B

POINTS: 0 / 1


-  _____ 6. The half-reaction occurring at the anode in the balanced reaction shown below is _____.



- $\text{MnO}_4^- (\text{aq}) + 8\text{H}^+ (\text{aq}) + 5\text{e}^- \rightarrow \text{Mn}^{2+} (\text{aq}) + 4\text{H}_2\text{O} (\text{l})$
- $2\text{MnO}_4^- (\text{aq}) + 12\text{H}^+ (\text{aq}) + 6\text{e}^- \rightarrow 2\text{Mn}^{2+} (\text{aq}) + 3\text{H}_2\text{O} (\text{l})$
- $\text{Fe} (\text{s}) \rightarrow \text{Fe}^{3+} (\text{aq}) + 3\text{e}^-$
- $\text{Fe} (\text{s}) \rightarrow \text{Fe}^{2+} (\text{aq}) + 2\text{e}^-$
- $\text{Fe}^{2+} (\text{aq}) \rightarrow \text{Fe}^{3+} (\text{aq}) + \text{e}^-$


ANSWER: C

POINTS: 0 / 1

-  _____ 7. In a voltaic cell, electrons flow from the _____ to the _____.
- salt bridge, anode
 - anode, salt bridge
 - cathode, anode
 - salt bridge, cathode
 - anode, cathode

ANSWER: E

POINTS: 0 / 1

-  _____ 8. The reduction half reaction occurring in the standard hydrogen electrode is _____.

