Name:_____ School:_____

Chem 30 Unit 7 Hand In Assignment (sections 7.1-7.3)

When balancing the following redox reactions with oxidation numbers, the changes in oxidation numbers must be shown and balancing coefficients placed into the equation for full marks.

When using the half reaction method, you must fully write out both half reactions such that the number of electrons in each is equal. Remember to put correct charges on molecules and ions when appropriate.

1. Balance the following reactions using the oxidation number method.

a. $NaClO + H_2S \rightarrow NaCl + H_2SO_4$

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b. $Sn + HNO_3 + H_2O \rightarrow H_2SnO_3 + NO$

4

2. Balance the following reaction in an acidic solution using the half reaction method.

$CrO_4^{2-} + Cl^- \rightarrow Cr^{3+} + Cl_2$

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3. Balance the following redox reaction in an acidic solution using any method you prefer (oxidation number or half reaction).

$H_2PO_2^-$ + TeO_4^{2-} → PO_4^{3-} + Te

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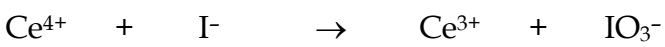
4. Balance the following redox reaction in a basic solution. Use any method you prefer (oxidation number method or half reaction method).



Ce^{4+} + I^- → Ce^{3+} + IO_3^-

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