

Coaching Report

Participant	Student Ljubljanski	Student detail	User_52
Group	ntc.at ats.at	Status	Ended normally
Assessment name	General Chemistry 2 - EN V4	Final Score	65
Time Used	00:05:49	Time limit (min)	15
Date taken	16-09-2016 10:42:47		

Questions - presented: 10, answered: 10

1	<p>Chlorine can be prepared by the reaction:</p> $\text{MnO}_2 (\text{s}) + 4\text{HCl} (\text{aq}) \rightarrow \text{MnCl}_2 (\text{aq}) + \text{Cl}_2 (\text{g}) + 2\text{H}_2\text{O} (\text{l})$ <p>The number of grams of HCl which reacts with 50g of MnO₂(s) is</p> <p>Relative atomic masses: Mn 54.9; O 16.0; Cl 35.5; H 1.01</p>
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Question type	Multiple Choice
Topic	Chemistry of elements
Difficulty	2/3
Score	10
Score max	1
Answer choosen	83.90g
Answer	<p>0) 0.575g</p> <p>1) 2.299g</p> <p>2) 83.90g</p>

3) 146.0g

4) 200.01g

2 All of the following changes release energy except the...



Question type	Multiple Choice
Topic	Energy
Difficulty	2/3
Score	0
Score max	1
Answer choosen	formation of a chemical bond between atoms.
Answer	<p>0) arrangement of ions in a crystal lattice structure.</p> <p>1) formation of a chemical bond between atoms.</p> <p>2) breaking a chemical bond between atoms.</p> <p>3) solidification of liquid iron.</p> <p>4) freezing of water</p>

3 Which of the following solution has the lowest freezing point:



Question type	Multiple Choice
Topic	States of matter
Difficulty	2/3
Score	10
Score max	1
Answer choosen	0.0080 M HCl(aq)
Answer	<p>0) 0.010 M C₆H₁₂O₆(aq)</p>

- 1) 0.0080 M HCl(aq)
- 2) 0.0050 M MgCl₂(aq)
- 3) 0.0030 M Al₂(SO₄)₃ (aq)
- 4) 0.001 M NaCl(aq)

4 What type of chemical bond would you expect to form between elements 19 and 35 ?



Question type	Multiple Choice
Topic	Chemical bonding
Difficulty	2/3
Score	0
Score max	1
Answer choosen	polar covalent
Answer	<p>0) ionic</p> <p>1) non-polar covalent</p> <p>2) polar covalent</p> <p>3) coordination</p> <p>4) hydrogen bond</p>

5 S₂O₃²⁻ + 2 H⁺ S + SO₂ + H₂O

The rate of above reaction increases when



Question type	Multiple Choice
Topic	Types of chemical reaction
Difficulty	2/3
Score	10

Score max	1
Answer choosen	concentration of $\text{S}_2\text{O}_3^{2-}$ increases.
Answer	<p>0) concentration of $\text{S}_2\text{O}_3^{2-}$ increases.</p> <p>1) the concentration of $\text{S}_2\text{O}_3^{2-}$ decreases.</p> <p>2) the concentration of H^+ decreases.</p> <p>3) the concentration of SO_2 increases.</p> <p>4) the concentration of S increases.</p>

6 The oxidation states of nitrogen in Ca_3N_2 , NO_2^- and $\text{Pb}(\text{NO}_3)_2$ are respectively:



Question type	Multiple Choice
Topic	Redox reactions
Difficulty	2/3
Score	10
Score max	1
Answer choosen	-3, +3, +5
Answer	<p>0) +2, +1, +2</p> <p>1) +3, -2, +3</p> <p>2) -3, +4, +6</p> <p>3) -3, +3, +5</p> <p>4) +3, +3, +5</p>

7 When the base NH_3 is titrated with a strong acid, the titration curve



Question type	Multiple Response
Topic	Acids and bases

Difficulty	2/3
Score	5
Score max	1
Answer choosen	is descending
Answer	<p>0) is descending</p> <p>1) has two inflection (equivalence) points</p> <p>2) is ascending</p> <p>3) has only one inflection (equivalence) point</p> <p>4) has three inflection points</p>

8 Which statement is correct ?



Question type	Multiple Choice
Topic	Organic chemistry
Difficulty	2/3
Score	10
Score max	1
Answer choosen	When an alkanoic (carboxylic) acid reacts with an alcohol water is formed.
Answer	<p>0) When an alkanoic (carboxylic) acid reacts with an alcohol water is formed.</p> <p>1) Butanal is an isomer of butanol.</p> <p>2) Acetaldehyde and acetone are isomers.</p> <p>3) 1,2,3-Propanetriol is a toxic alcohol.</p> <p>4) Benzyl alcohol and phenol are acids.</p>

9 Within a group of elements in the Periodic Table, as the atomic number increases the size of the ions ...



Question type	Multiple Choice
Topic	Atomic structure
Difficulty	2/3
Score	10
Score max	1
Answer choosen	increases
Answer	0) increases 1) decreases 2) stays the same 3) increases or decreases depending on the location of the group 4) changes in an irregular way

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A weak acid, HA, dissociates according to:



The dissociation constant, K_a , of the acid is $1.0 \times 10^{-7} \text{ mol l}^{-1}$. The approximate pH of a 0.1 mol l^{-1} solution of this acid is:



Question type	Multiple Choice
Topic	Chemical equilibria
Difficulty	1/3
Score	0
Score max	1
Answer choosen	1
Answer	0) 1

1) 2

2) 3

3) 4

4) 5