Faculty: Science    Course: Chemistry    Year: 12

Assessment Task: Processing Skills and Written Task

Assessment Weighting: 20%    Due: Term 1 Week 8    Date: 19/03/2019

Task Type: Hand in Task    In Class Task    Practical Task

**Outcomes assessed (NESA)**

**Skills Outcomes**
- CH11/12-4 - Processing data and information selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media.
- CH11/12-5 - Analysing data and information analyses and evaluates primary and secondary data and information.
- CH11/12-6 - Problem solving solves scientific problems using primary and secondary data, critical thinking skills and scientific processes.
- CH11/12-7 communicates scientific understanding using suitable language and terminology for a specific audience or purpose.

**Content Outcomes**
- CH12-12 - explains the characteristics of equilibrium systems, and the factors that affect these systems. (Particularly the Haber process)
- CH12-13 describes, explains and quantitatively analyses acids and bases using contemporary models

**Task Description/Overview**
In class task. This task assesses your ability to:
1. Process information and explain the characteristics of equilibrium system.
2. Analyse Data and problem solve using chemistry understanding and calculations.
3. Graph data and analyse graphs.

**Detailed Assessment Task Description**
You will answer multiple choice questions (5), written responses and complete calculations. Topic areas assessed: Enthalpy and Entropy; interpretation of energy profile graphs; Spontaneous and non-spontaneous reactions, Equilibrium and Equilibrium constant, Solution equilibria, Ksp, solubility rules; pH, pOH and Kw, as well as reactions involving acid and bases.

Length of Assessment: 75 minutes + 5 minute reading time

This task will be completed during your double period in D01.
### Assessment Criteria

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Mark Range</th>
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<tbody>
<tr>
<td>Outstanding (O)</td>
<td>The student has an extensive knowledge and understanding of the content and can readily apply this knowledge. In addition, the student has achieved a very high level of competence in the processes and skills and can apply these skills to new situations.</td>
<td>79.5-100 %</td>
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<tr>
<td>High (H)</td>
<td>The student has a thorough knowledge and understanding of the content and a high level of competence in the processes and skills. In addition, the student is able to apply this knowledge and these skills to most situations.</td>
<td>69.5-79</td>
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<td>Sound (S)</td>
<td>The student has a sound knowledge and understanding of the content and has achieved a good level of competence in the processes and skills.</td>
<td>49.5-69</td>
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<tr>
<td>Basic (B)</td>
<td>The student has a basic knowledge and understanding of the content and has achieved a basic level of competence in the processes and skills.</td>
<td>19.5-49</td>
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<tr>
<td>Limited (L)</td>
<td>The student has an elementary knowledge and understanding in a few areas of the content and still requires further work to achieve competence in the processes and skills.</td>
<td>0-19</td>
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**Satisfactory completion of courses**

A course has been satisfactorily completed, when the student has:

- Followed the course developed/endorsed by the NSW Educational Standards Authority (NESA)
- Applied himself/herself with diligence and sustained effort to the set tasks and experiences provided in the course.
- Achieved some or all of the course outcomes