This assignment requires you to research information on **TWO** Industrial applications of separation techniques.

Your assignment needs to include the following:

**Part A: Sewage Treatment**

1. Describe the Industrial Separation Technique(s) currently used in Sewage Treatment.

2. Use an accurate and labelled diagram(s) to illustrate the industrial process of Sewage Treatment.

   - Is the environment affected?
   - Is the process expensive?

4. Would you drink water that met all health standards, knowing that the water was sourced from treated sewage? Use a table to display reasons for drinking the water and reasons for not drinking the water.

**Part B: Other Industrial Separation Techniques**

1. Choose **ONE** other application of Industrial Separation Techniques from the following list:
   - Salt Harvesting
   - Sugar Extraction
   - Sand Mining
   - Desalinisation of Sea Water
   - Metal Ore refining
   - Crude Oil Production

2. Describe the Industrial Separation Technique(s) currently used in your chosen separation technique.

3. Use an accurate and labelled diagram(s) to illustrate the industrial process of your chosen separation technique.

4. Describe problems associated with your chosen separation technique.

**ADDITIONAL MARKS WILL BE AWARDED FOR:**

- Presentation. (3 marks)
- Creativity and individuality. (3 marks)
- Bibliography listing your sources of information (2 marks)
Marking Criteria for this Research Assignment:

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks</th>
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</thead>
<tbody>
<tr>
<td>Sewage Treatment Description</td>
<td>/10</td>
</tr>
<tr>
<td>Other Industrial Separation Process Description</td>
<td>/10</td>
</tr>
<tr>
<td>Illustrations/diagrams</td>
<td>/4</td>
</tr>
<tr>
<td>Problems associated with sewage treatment &amp; industrial separation process</td>
<td>/4</td>
</tr>
<tr>
<td>Table – pros &amp; cons of drinking treated sewage</td>
<td>/4</td>
</tr>
<tr>
<td>Presentation</td>
<td>/3</td>
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<tr>
<td>Creativity</td>
<td>/3</td>
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<td>Bibliography</td>
<td>/2</td>
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<td><strong>Total</strong></td>
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Note- Your assignment needs to:
- Be presented on 2 A4 sheets MAX. NO POSTERS!!
- Be written in your own words (not copied directly from the source).

MARKS WILL BE DEDUCTED FOR:
- Lateness – 20% per school day
- Work COPIED directly from the source or another student.

This assignment forms part of your assessment for this half of the year.

If you have any queries, see your science teacher.