

NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**TASK 10**

**ATAR CHEMISTRY UNITS 1 & 2 SCIENCE INQUIRY 2 QUIZ**

TOTAL 20 marks

1. Name the techniques that are suitable for separating the following mixture: (5 marks)

|  |  |  |
| --- | --- | --- |
|  | Situation | Separation Technique(s) |
| a. | To obtain drinking water from muddy water |  |
| b. | To separate petrol from crude oil |  |
| c. | To remove leaves from a swimming pool |  |
| d. | To obtain pure sugar from a solution |  |
| e. | To determine whether the colouring in a fruit juice is a single substance or a mixture of coloured substances |  |

2. When packing up after a Year 9 Chemistry class, the teacher needed to find a way

to separate the mixture left by the students. The mixture contained vinegar,

vegetable oil, calcium phosphate and sodium nitrate.

Vinegar is a solution that contains approximately 3% Ethanoic acid.

(Boiling Point of Ethanoic Acid is 118.1° C)

**ALL substances need to be recovered.**

1. Draw a flow diagram to show the steps you would use if you were required to separate the mixture described above. (5 marks)
2. (i) Describe the separation technique used to separate each substance.

Start from the first step and clearly number each step to match your flow chart.

(5 marks)

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(ii) Explain how the physical property makes it possible to use the separation

technique chosen. (5 marks)

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