# Diploma of Health Sciences Diploma of Science

# **SLE155 Chemistry for the Professional Sciences**

# Q14 Carboxylic acids and derivatives

[4+2+1 = 7 marks]

a) Draw the structural formula for <u>all</u> of the expected product(s) for the following reactions. Hint: If no reaction occurs, write "no reaction".

Hint: You do not have to name the products.

[2 marks]

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#### **SLE155 Chemistry for the Professional Sciences**

# Q14 (continued) Carboxylic acids and derivatives

[4+2+1 = 7 marks]

b) Arrange the compounds in the following set in order of increasing solubility in water. (lowest first)

$$CH_3(CH_2)_5COOH$$
,  $CH_3(CH_2)_6CHO$ ,  $CH_3(CH_2)_6CH_2OH$ 

Briefly explain why you chose this order.

[2 marks]

c) Name the following compound:

[1 mark]

**END OF QUESTIONS** 

Data sheets are on the next pages