

Question 5 (6 marks)

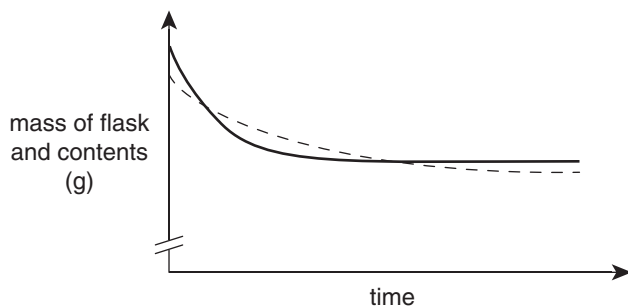
Compound A	Compound C
$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$	$\text{CH}_3\text{CH}_2\text{CHClCH}_3$

- a. 2 marks
- b. C_4H_8 1 mark
- c. chlorine gas (in the presence of UV light) 1 mark
- d. butan-2-amine 1 mark
- e. ketones 1 mark

Question 6 (16 marks)

- a. i. Oxygen gas escaped from the flask and so mass was lost. 1 mark
- ii. The rate is fastest immediately after the reaction started. At this time the concentrations of the reactants are the highest and so the frequency of collisions is high. 1 mark
- Reaction rate decreases as the concentration of reactants decreases, and consequently the frequency of collisions decreases. 1 mark

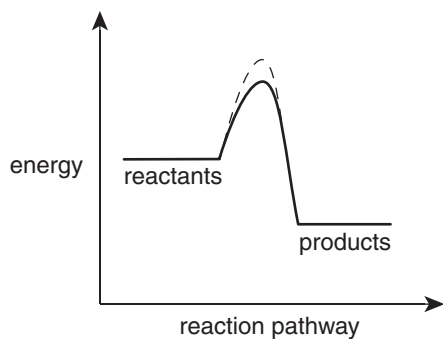
iii.



2 marks

*1 mark for the graph showing the starting point a little lower.**1 mark for the graph showing a more gentle fall and a lower plateau reached a little later.*

iv.



1 mark