

GCSE Chemistry B (Twenty First Century Science)

J258/01 Breadth in Chemistry (Foundation Tier)

Question Set 3

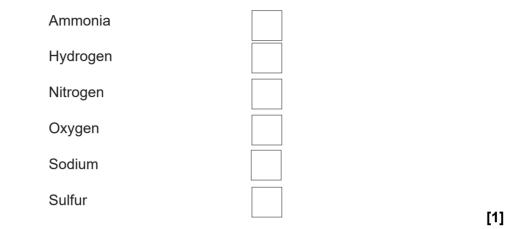
Multiple Choice Questions

- Some farmers use manure from cows as a natural fertiliser. Other farmers use ammonium sulfate as a synthetic fertiliser.
- (a) (i) The formula of ammonium sulfate is $(NH_4)_2SO_4$.

Which elements does ammonium sulfate contain?

Tick (\checkmark) four boxes.

1



(ii) Plants need one of the elements in ammonium sulfate to grow faster.

Write down the name of this element.

			[1]
(b)		Farmers can choose manure or ammonium sulfate as a fertiliser.	
		Farmers need to consider the cost of the fertiliser.	
	(i)	Suggest one reason, other than cost , why some farmers use manure rather than ammonium sulfate as a fertiliser.	
	(ii)	Suggest one reason, other than cost , why some farmers use ammonium sulfate rather than manure as a fertiliser.	[1]

[1]

- (c) Alex has a solution of ammonium sulfate.
 - (i) Alex uses barium chloride solution to show that the solution contains sulfate ions.

Describe what Alex sees and name the substance formed.

(ii) Alex wants to make **solid** ammonium sulfate from the solution of ammonium sulfate.

What would Alex do first?

Tick (✓) one box.

Distil the solution.		
Evaporate the solution.		
Filter the solution.		
Use chromatography.		

(d) 132g of ammonium sulfate contain 28g of nitrogen.

Calculate the mass of nitrogen in 1.0 kg of ammonium sulfate.

Give your answer in kg and to 2 decimal places.

Mass =.....kg [3]

[3]

[1]

Total Marks for Question Set 3: 11



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