

Paper 1

Questions are applicable for both core and extended candidates

- 1 The formulae of four compounds, W, X, Y and Z, are given.

compound	formula
W	FeSO_4
X	$(\text{NH}_4)_3\text{PO}_4$
Y	KNO_3
Z	NaCl

Which compounds are mixed to create a fertiliser containing the three elements necessary for improved plant growth?

- A** W and X **B** W and Z **C** X and Y **D** Y and Z

- 2 Which pair of compounds make an NPK fertiliser?

- A** ammonium sulfate and potassium phosphate
B calcium hydroxide and ammonium nitrate
C calcium phosphate and potassium chloride
D potassium nitrate and ammonium sulfate

- 3 Fertilisers are used to provide three of the elements needed for plant growth.

Which two compounds would give a fertiliser containing all three of these elements?

- A** $\text{Ca}(\text{NO}_3)_2$ and $(\text{NH}_4)_2\text{SO}_4$
B $\text{Ca}(\text{NO}_3)_2$ and $(\text{NH}_4)_3\text{PO}_4$
C KNO_3 and $(\text{NH}_4)_2\text{SO}_4$
D KNO_3 and $(\text{NH}_4)_3\text{PO}_4$

Paper 2

Questions are applicable for both core and extended candidates
unless indicated in the question

- 4 Which chemicals can be used as a fertiliser to provide the three elements needed for improved plant growth?

- A** $(\text{NH}_2)_2\text{CO}$ and KCl
B $(\text{NH}_4)_2\text{HPO}_4$ and K_2SO_4
C $(\text{NH}_4)_2\text{HPO}_4$ and $(\text{NH}_2)_2\text{CO}$
D $(\text{NH}_2)_2\text{CO}$ and K_2SO_4

- 5 Ammonium sulfate is used as a fertiliser.

It is made from ammonia and sulfuric acid.

The1..... is made by the2..... process in which3..... is used as a catalyst.

Which words complete gaps 1, 2 and 3?

	1	2	3
A	ammonia	Contact	iron
B	ammonia	Haber	vanadium(V) oxide
C	sulfuric acid	Contact	vanadium(V) oxide
D	sulfuric acid	Haber	iron