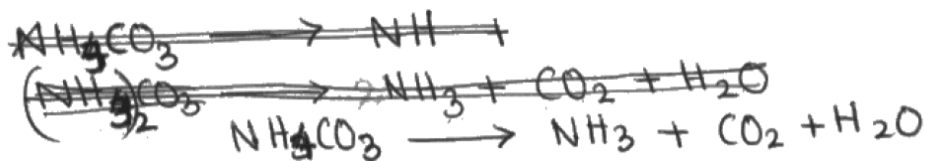


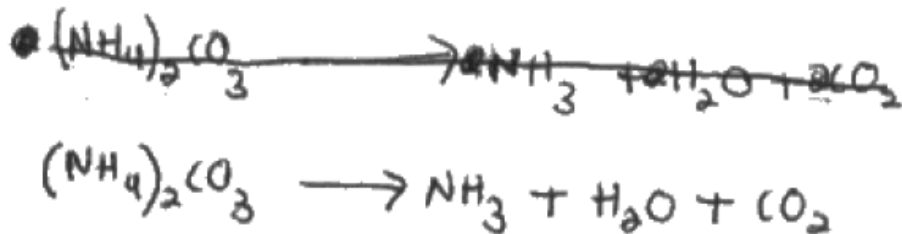
ACTIVITY 6b – AO3 in Exams – Student Answers

UNIT 3, Q1(a)

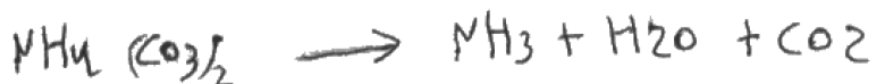
Student 1



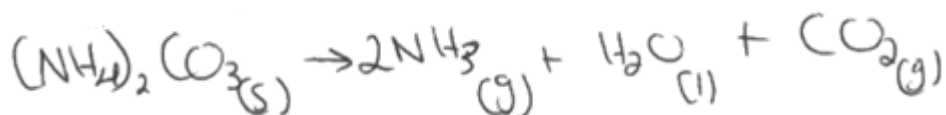
Student 2



Student 3



Student 4



UNIT 3, Q1(b)

Student 1

Product	Chemical test	Result of test
ammonia	place tube of ammonia close to an open bottle of conc. HCl	white fumes are produced (NH_4Cl)
water	Add to calcium chloride	turns from white to Blue.
carbon dioxide	PASS through lime water ($\text{Ca}(\text{OH})_2$)	Turns milky (white ppt - CaCO_3)

Student 2

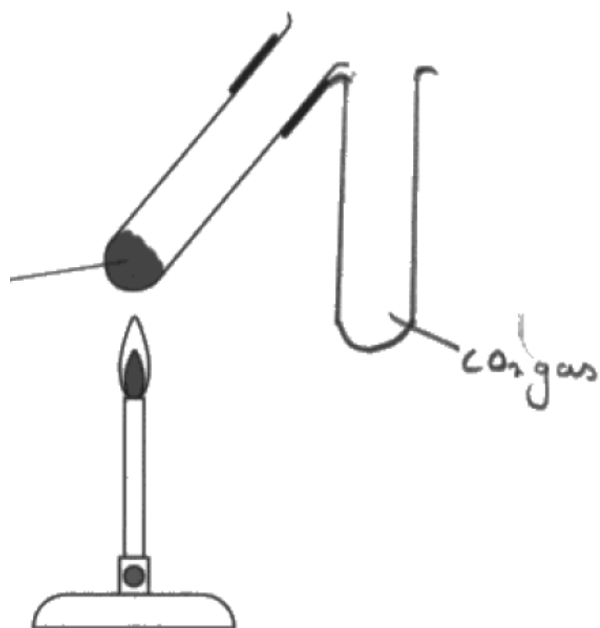
Product	Chemical test	Result of test
ammonia	Damp litmus paper	turns red litmus paper blue
water	thermometer put thermometer and boil it	turns it cloudy or milky boils at 100°C
carbon dioxide	lime water put CO_2 into lime water	turns it cloudy or milky

Student 3

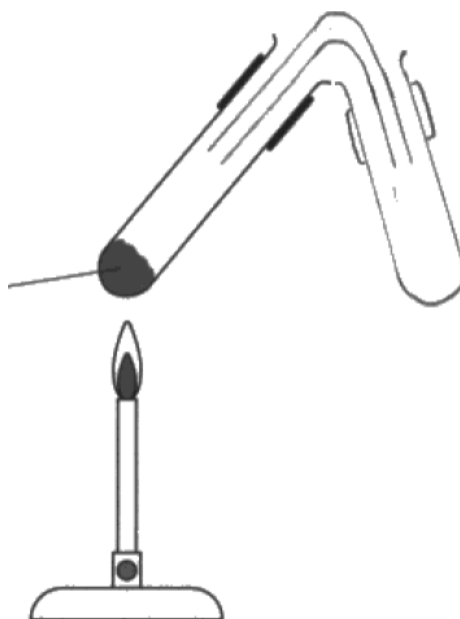
Product	Chemical test	Result of test
ammonia	add excess sodium hydroxide HCl	white precipitate forms
water	add anhydrous copper(II) sulphate	colour changes from white to blue
carbon dioxide	add lime water	turns milky

UNIT 3, Q1(c)

Student 1



Student 2



UNIT 3, Q1(d)(i) & (ii)

Student 1

	Test	Observation	Observed product	
(i)	About 1 cm ³ of barium chloride solution was added to 5 cm ³ of the ammonium carbonate solution	Insoluble	BaCO ₃	(2)
(ii)	About 5 cm ³ of hydrochloric acid was added to the mixture from (i)	Fizzing	CO ₂	(2)

Student 2

	Test	Observation	Observed product	
(i)	About 1 cm ³ of barium chloride solution was added to 5 cm ³ of the ammonium carbonate solution	A white precipitate ppt forms	Barium carbonate Hydret Ammonium chloride	(2)
(ii)	About 5 cm ³ of hydrochloric acid was added to the mixture from (i)	precipitate dissolves	formation of Barium chloride	(2)

Student 3

	Test	Observation	Observed product	
(i)	About 1 cm ³ of barium chloride solution was added to 5 cm ³ of the ammonium carbonate solution	vigorous effervescence and white precipitate.	Barium carbonate Hydrochloric acid	(2)
(ii)	About 5 cm ³ of hydrochloric acid was added to the mixture from (i)	effervescence is produced.	a gas that turns lime water cloudy, effervescence (CO ₂)	(2)

Student 4

	Test	Observation	Observed product	
(i)	About 1 cm ³ of barium chloride solution was added to 5 cm ³ of the ammonium carbonate solution	A white precipitate forms	Barium carbonate, BaCO ₃	(2)
(ii)	About 5 cm ³ of hydrochloric acid was added to the mixture from (i)	The precipitate dissolves, effervescence	BaCl ₂ and CO ₂ forms H₂O forms.	(2)