

Acids, bases and combustion

1. a) B
b) PH of potassium hydroxide is higher than that of aqueous ammonia. KOH ions are dissociated more than that of aqueous NH₃
2. (a) (i) X
(ii) W ✓ 1
(b) V ✓ 1
3. a) Methyl Orange Red/Pink ✓½
Phenolphthalein Colourless/Pink ✓½
b) The PH of 0.1M KOH is higher than of 0.1M aqueous ammonia ✓1
KOH is strongly dissociated in solution. ✓1
4. a) K
b)i) G
ii) I
5. Copper (II) oxide is insoluble in water hence there are no OH- ions in the mixture
6. a) S is acidic and would make the situation worse ✓ ½
b) Discovery of drugs processing and testing is the work of chemists. Chemists are professionals who have studied chemistry ✓ ½
7. Its due to formation of insoluble Lead(II) carbonate hence preventing any further reaction.
8. CaO is used in correcting soil acidity. ✓
9. (a) Pink ✓ 1
(b) 7.0 ✓ 1
10. (a) alkali is soluble base. ✓1
(b) Because it is lighter than air. ✓1
11. (a)

Solution	Blue litmus paper	Indicator W
	BLUE	
	...RED.....	
- (b) Phenolphthalein
12. a)-give inconsistent results ✓½
-expire shortly ✓½
b) I.

Solvent forms

Baseline (origin)

II. Maximum sports-award 1 ½ mks

Fail any one- award

III W ✓½ and Y ✓½

13. Sting of a bee is acidic ✓ and is neutralized by sodium hydrogen carbonate ✓½ into a salt, carbon (IV) oxide and water. This gives pain relief. ✓½
14. (a) There was production of effervescence . The lemon juice contain an acid that reacts with the carbonate to produce carbon (IV) oxide.
(b) No production of bubbles. Copper is below hydrogen in the reactivity
15. (a) Yellow

✓ ½

Colourless

16. (i) *K and M*
(ii) *K and M* ✓

✓ 1