

ACIDS, BASES AND INDICATORS

1.

(a)

liquid added	colour	acidic, alkaline or neutral?
water	purple	neutral
lemon juice	red	acidic
washing up liquid	blue	alkaline

3

(b) indicators *if more than one box is ticked, award no mark*

1

[4]

2.

(a) (i) any **one** from

1

· lemonade

· fruit juice *accept 'fruit **or** juice'*

(ii) any **one** from 1

· milk

· water

(b) (i) any **one** from

1

· blue

· dark blue

· purple

(ii) any **one** from 1

· it bubbled *accept 'it fizzed'*

· bubbles were formed *accept 'bubbles'*
accept 'effervescence'

(c) neutralisation ✓

1

if more than one box is ticked, award no mark

[5]

3.

(a) (i) 7 do **not** accept 'neutral' 1

(ii) it was neutral ✓ *if more than one box is ticked,* 1
award no mark
consequential marking applies
accept 'it was acidic' if the answer to part
(i) was less than 7
accept 'it was alkaline' if the answer to
part (i) was greater than 7 and up to 14

(b) any **one** from 1
· it decreased **or** went down *accept 'it dropped to 5'*
· it became acidic **or** more acidic

(c) an alkali ✓ *if more than one box is ticked,* 1
award no mark

[4]

4.

(a) solution X = acid (1) Y and Z (both needed) are alkaline/alkali (1) [2]
(b) (i) barium chloride (nitrate) (solution) [1]
(ii) white (precipitate) (independent mark) [1]
accept milky/chalky
(iii) sulphuric acid [1]
accept correct formula where given but not hydrogen sulphate
(c) (i) not enough of solution X had been added to react with all of solution Y (OWTTE)
(an understanding that sufficient acid must be added) [1]
(ii) the colour changed from pink to colourless [1]
(iii) neutralisation [1]

[Total: 8]