

Chemistry X_ Paper II

Q1: a) Write two differences between Reversible reactions and Irreversible reactions.

REVERSIBLE REACTIONS	IRREVERSIBLE REACTIONS
•	•
•	•

b) What do you understand by the term:

i. Static Equilibrium: _____

ii. Dynamic Equilibrium: _____

c) Write two microscopic characteristics of both forward & reverse reaction.

- _____

- _____

d) Write one equation of:

i) Reversible reaction: _____

ii) Irreversible reaction: _____

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Q2: a) State the law of mass action.

b) Derive an expression for the equilibrium constant.

c) Write two factors which can shift equilibrium in a reversible reaction and name the law to explain these factors.

Q3: a) A group of students measured the P of some substances they found in their homes. The results are given in the table below.

Substance	pH
Apple	3.0
Milk	6.5
Salt	7.0
Tooth Paste	9.0
Washing Soda	11.5

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i). What would the students have used to measure the pH?

_____.

ii). Which solution are:

Most Acidic: _____.

Most Alkaline: _____.

b. Choose the following substances to answer the questions below:

Aluminium

Iron

Ammonia

Magnesium Oxide

Potassium hydroxide

Sulphur dioxide

i). Name the substance which is an acidic gas?

_____.

ii). Name the substance which dissolved in water to form an alkaline solution.

_____.

iii). Magnesium will burn in Sulphur dioxide to form mixture of a white solid and a yellow solid. The white solid will react with hydrochloric acid but not the yellow solid.

➤ Name the white soda & yellow solid.

_____.

_____.

➤ Construct the equation for the burning of magnesium in Sulphur dioxide and reaction of the white solid with hydrochloric acid.

_____.

_____.

_____.

Q4: a) Write an ionic equation including state symbols for the reaction between an acid and alkali.

_____.

_____.

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b) An element is found to react with oxygen to form an oxide when dissolved in water cause litmus paper turn to blue, would the element be classed as a metal or non – metal, why?

c) State Lowry & Bronsted concept of acid and base.

d) Classify substance as Lewis acid Lewis base.

Ammonia, Aluminium Chloride, Hydronium ion, Flouride ion.

- Lewis Acid: _____, _____.
- Lewis Base: _____, _____.