The City School

**North Nazimabad Boys Campus**

**Chemistry**

**Teacher : Zubaida Aslam Class :10 Date: 9-11-2015 Subject :Chemistry**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sec: \_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q1 : Some magnesium and an *excess* of dilute

hydrochloric acid were reacted together.

The volume of hydrogen produced was recorded

every minute, as shown in the table:

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**a** What does an *excess* of acid mean?

**b** Plot a graph of the results.

**c** What is the *rate of reaction* (in cm3 of hydrogen per minute) during:

**i** the first minute?

**ii** the second minute?

**iii** the third minute?

**d** Why does the rate change during the reaction?

**e** How much hydrogen was produced in total?

**f** How long does the reaction last?

**g** What is the *average rate* of the reaction?

**h** How could you slow down the reaction, while

keeping the amounts of reactants unchanged?

Q2 :In two separate experiments, two metals A and B

were reacted with an excess of dilute hydrochloric

acid. The volume of hydrogen was measured every

10 seconds. These graphs show the results:

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**a i** Which piece of apparatus can be used to measure the volume of hydrogen produced?

**ii** What other measuring equipment is needed?

**b** Which metal, A or B, reacts faster with

hydrochloric acid? Give your evidence.

**c** Sketch and label the curves that will be obtained

for metal B if:

**i** more concentrated acid is used (curve X)

Q3 : The rate of the reaction between magnesium and

dilute hydrochloric acid can be measured using

this apparatus:

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**a** What is the purpose of:

**i** the test-tube? **ii** the gas syringe?

**b** How would you get the reaction to start?