



General Certificate of Secondary Education

Chemistry 4421

CHY3F Unit Chemistry 3

Report on the Examination

2008 Examination – January Series

Further copies of this Report are available to download from the AQA Website: www.aqa.org.uk

Copyright © 2008 AQA and its licensors. All rights reserved.

COPYRIGHT

AQA retains the copyright on all its publications. However, registered centres for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to centres to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.

The Assessment and Qualifications Alliance (AQA) is a company limited by guarantee registered in England and Wales (company number 3644723) and a registered charity (registered charity number 1073334). Registered address: AQA, Devas Street, Manchester M15 6EX
Dr Michael Cresswell Director General.

Chemistry

Foundation Tier CHY3F

General

This was the first examination of the new Specification.

Candidates should be reminded to write their answers clearly in black ink or ball-point pen and within the space provided. Note that when candidates give several answers when only one or two are required, they might not be credited for their correct ideas if errors or contradictions are included in their response.

Questions 5 and 6 are standard demand questions and are common with questions 1 and 2 on the Chemistry Higher Tier CHY3 paper.

This report should be read in conjunction with the published mark scheme.

Question 1 (*Low Demand*)

Generally this question was quite well answered.

Part (b)(i) and (b)(iii) were least well answered although the majority of candidates gained the marks.

Question 2 (*Low Demand*)

In part (a)(i) quite a few candidates confused the flame test with microbiology and wrote to get rid of bacteria. Some wrote for health and safety. Parts (a)(ii) and (a)(iii) were quite well attempted.

In part (b)(i) many candidates wrote steam or smoke. There were some vague answers such as 'colour change', 'squeaky pop' and 'liquid evaporates'.

On the whole, part (c) was fairly well attempted although some candidates did say that it is slower and uses large amounts of the chemical.

Question 3 (*Low Demand*)

In part (a)(i) some candidates confused the burette with the measuring cylinder while in part (a)(ii) the common mistake was beaker.

Part (b) was reasonably well attempted.

For part (c) the majority of the candidates gained both marks.

Parts (d)(i) and (d)(ii) were least well answered. In part (d)(i), the candidates seemed to have chosen any answer from the given list and in part (d)(ii), the common answer was it is dilute.

Question 4 (*Low Demand*)

Only a minority of the candidates got part (a) correct. All sorts of ions appeared in their answers.

The majority of the candidates got part (b) correct.

Part (c) was very poorly attempted. The common response was soft water forms lather with soap but hard water does not lather with soap. Other candidates suggested that 'soft water lathers easily or quickly but hard water takes a longer time to form lather'. Very few candidates suggested that hard water forms scum with soap.

Question 5 (Standard Demand)

Very few candidates gained credit on part (a). There were vague answers like a small amount of fuel gives a lot of heat, 1g of fuel gives a large increase in temperature or simply a repeat of the question 1g gives a temperature of 15°C.

In part (b) almost all candidates got at least the first mark. Some candidates were unable to suggest the solution to the problem. Quite a few suggested an extractor fan.

In part (c)(i) the majority of the candidates identified the activation energy correctly. In part (ii) only a minority of candidates gained this mark.

Question 6 (Standard Demand)

In part (a)(i) the majority of the candidates attempted to draw a smooth curve. A few left out the first point at 0°C. Many seemed to think thatextending your curve to 50°C meant that the point should be at 50°C and solubility of 5g/dm³ of water.

In part (a)(ii) the majority of candidates correctly read the appropriate value from their graph. However, some did have a problem with the scale as they did not realise that one small square was equal to 0.2g and therefore read 10.2 as 10.1.

Part (a)(iii) presented a problem to some candidates who added both values or just guessed a numerical value.

Many candidates found part (a)(iv) difficult to answer with some simply writing that the one at 50°C was estimated.

Part (b) was generally quite well attempted and many candidates were able to pick out the points from the passage.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.