

Advanced Subsidiary GCE

F333

CHEMISTRY B (SALTERS)

Unit F333: Chemistry in Practice:
Skill V (Interpretation)

Specimen Task

For use from September 2008 to June 2009.

All items required by teachers and candidates for this task are included in this pack.

INFORMATION FOR CANDIDATES

- Unit F333: Chemistry in Practice: Skill V (Interpretation)

INFORMATION FOR TEACHERS

- Mark scheme.
- Instructions for Teachers and Technicians.

SPECIMEN

Advanced Subsidiary GCE
CHEMISTRY B (SALTERS)

F333

Unit F333: Chemistry in Practice:
Skill V (Interpretation)

Specimen Task

For use from September 2008 to June 2009.

Candidates answer on this task sheet.

INSTRUCTIONS TO CANDIDATES

- Answer **all** parts of the task.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each part of the task.
- The total number of marks for this task is **12**.

ADVICE TO CANDIDATES

- Read each part carefully and make sure you know what you have to do before starting your answer.

FOR TEACHER'S USE		
Qu.	Max.	Mark = Assessment Mark
TOTAL	12	

FOR TEACHER'S USE		
Qu.	Max.	Mark = Assessment Mark
TOTAL	12	

This task consists of **3** printed pages and **1** blank page

F333 – Assessment of Skill V (Interpretation)

Use the observations you made to help you answer the questions below. Answer in as much detail as possible, making it clear how your explanation links with the evidence.

- (a)** What can you tell about the relative solubility of bromine in cyclohexane and water from observations made in experiment 2?

.....
.....
.....
..... [1]

- (b)** Use observations made in experiment 5 to explain what happens when chlorine solution is added to potassium iodide solution. [1]

How does the addition of cyclohexane help you interpret what happens? [1]

.....
.....
.....
.....

- (c)** What pattern or trend in the behaviour of the elements of group VII can you identify from observations made in experiments 1 to 7? [1]

Use this pattern or trend to explain what happens in experiments 5 and 6. [4]

.....
.....
.....
.....
.....
.....
.....
.....

- (d)** Write a chemical equation for the reaction occurring in experiment 7. [1]

- (e)** Write an ionic equation, including state symbols, for the reaction occurring in experiment 11. [2]
-
.....

[Total: 12]

END OF TASK

SPECIMEN

Copyright Acknowledgements:

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (OCR) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest opportunity.

OCR is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.

SPECIMEN

Specimen Mark Scheme + Instructions for Teachers and Technicians

The maximum mark for this task is **12**.

For use from September 2008 to June 2009.

It is expected that this Task can be completed in about 1 hour.

Candidates should have acquired the necessary practical skills and theoretical background before attempting this task.

Candidates may attempt more than one Interpretation task with the best mark from this type of task being used to make up the overall mark for Unit F333.

Preparing candidates

At the start of the task the candidates should be given the task sheet.

Candidates must work on the task individually under controlled conditions with the completed task being submitted to the teacher at the end of the lesson. Completed tasks should be kept under secure conditions until results are issued by OCR.

Candidates should not be given the opportunity to redraft their work. If a teacher feels that a candidate has under-performed, the candidate may be given an **alternative** task. Candidates are permitted to take each task **once** only.

Assessing the candidate's work

The mark scheme supplied with this pack should be used to determine a candidate's mark out of a total of 12 marks. The cover sheet for the task contains a grid for ease of recording marks. To aid moderators teachers should mark work using red ink, including any appropriate annotations to support the award of marks.

Notes to assist teachers with this task

Teachers must trial the task before candidates are given it, to ensure that the apparatus, materials, chemicals etc provided by the centre are appropriate.

Health and Safety

Attention is drawn to Appendix J of the Chemistry B (Salters) specification.

	Answer	Marking points
(a)	Bromine is more soluble in cyclohexane than it is in water	[1]
(b)	Chlorine oxidises iodide to iodine OR chlorine displaces iodine	[1]
	The purple colour of cyclohexane identifies the presence of iodine	[1]
(c)	Strength of elements as <i>oxidising agents</i> decreases down group OR element higher up group <i>displaces</i> element lower down	[1]
	In experiment 5, chlorine is higher in Group 7 than iodine so it oxidises iodide to iodine/displaces iodine	[1] [1]
	In experiment 6, bromine is lower in Group 7 than chlorine so bromine can not oxidise chloride to chlorine/cannot displace chlorine OR so no reaction takes place	[1] [1]
(d)	$\text{Br}_2 + 2\text{KI} \rightarrow \text{I}_2 + 2\text{KBr}$	[1]
(e)	$\text{Pb}^{2+}(\text{aq}) + 2\text{I}^{-}(\text{aq}) \rightarrow \text{PbI}_2(\text{s})$	equation 1 marking point physical states 1 marking point
QWC	Correct use in any answer of the term <i>oxidise</i> or <i>oxidising agent</i>	[1]
Total		[12]

Assessment marks

Marking points for this experiment are recorded directly as assessment marks

Technicians' list

Candidates will need candidate worksheet F333 skill V (Interpretation)

Candidates should have carried out the experiments described in candidate worksheet F333 skill IV (Observation) immediately before this assessment.

Candidates will need their answers from work sheet F333 skill V (Interpretation) but these should have been *either*

- collected and marked before being handed back for this exercise (and collected again at the end)

or, if there has not been time to mark the exercises:

- photocopied and handed out for this exercise, again being collected at the end to preserve security.

This activity should be assessed by the teacher using the mark scheme for assessment activity F333 skill V (Interpretation).

SPECIMEN

SPECIMEN