

Examiners' Report/
Principal Examiner Feedback

Summer 2012

GCE Chemistry (6CH06) Paper 1A/1B
Chemistry Laboratory Skills II

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Grade Boundaries

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6CH06/ 1A report

General

This was the third year that the component has been examined. Most centres have been with the scheme since its introduction, so have built up expertise in its implementation and administration. Teachers have built upon their experience of the scheme and prepared their candidates well for the assessment tasks. As in 2011 many high total marks were awarded. In some centres all candidates scored maximum or near maximum marks.

There were fewer administration errors this year. However there remain some centres that fail to send the correct sample of work to the moderator, do not include teachers' values with the sample or mark the work in such a way that the award of marks cannot readily be followed.

Centre assessors are advised to read this report and the equivalent one for 6CH03/01A.

Comments on the administration of the scheme

Some comments made in the 6CH03/01A report also apply to this scheme.

- It is important that centres check that the candidate numbers on the record sheets are the same as those on the entry lists. When candidates complete the record sheet headings themselves this is not always the case.
- The only pieces of work required by the moderator are those from the candidates selected by Edexcel plus the highest and lowest scoring candidates, if these are not already included in the requested sample. There is no need to send any other work.
- Some centres continue to send, with the samples, the record sheets of the whole entry. This is not necessary
- It is pleasing to report that most centres included teacher's values if activity c tasks, A2C1 or A2C3, had been carried out and included as counting marks.

Assessments

Activity a(GPC)

Almost all centres now correctly complete the record sheets to list five core practicals as activity a tasks

Non-counting assessment tasks may be listed as GPC tasks on the record sheet. However those b, c and d tasks for which the mark is included in the total mark should not also be listed as GPC tasks.

Activity b Qualitative observation

A2B9 The ionic equation in (b)(ii) was not well known. Some candidates wrongly suggested that the cation in C was iron(II) since the precipitate formed in (c)(i) darkened on the addition of hydrogen peroxide.

A2B10 The expected green precipitate of nickel hydroxide was not always observed in (c)(i).

A2B11 Some candidates identified the compound in (c)(iii) as H rather than the organic product of the reaction between H and ethanol.. If the product was correctly identified as ethyl ethanoate then all that was required as an explanation was to state that the nmr spectrum had three peaks so three different hydrogen environments.

A2B12 In (a)(iii) it was possible to infer that J was a primary or secondary alcohol and not just an "alcohol".

The four tasks available in 2011-2012 are no longer valid and must not be used for assessment of this activity in 2012-2013. Four replacement tasks are to be found on the secure web site. The 2011-2012 tasks may be used as practice exercises since they are no longer secure.

Activity c Quantitative measurement

A2C1 To score the first mark in (a) the graph, rather than the scales, should cover at least half of the graph paper in either direction. If the candidate makes an error reading the volume, V, in (b) then the teacher should correct the volume before awarding the accuracy marks.

A2C2 In part (b) the answer is to suggest that the order is zero with respect to iodine. It is not correct to award a mark for stating that the rate is zero with respect to iodine.

A2C3 This task almost always scores highly for those candidates with good titration skills. However, even these candidates often fail to give the answers to the calculations in (a) and (b) to either three or four significant figures as required.

A2C4 The marking of this task by centre assessors was sometimes slightly careless and over-generous. Table 1 was often awarded full marks even though it included errors in the conversions of the data. Misplotted points were often overlooked on the graph.

Activity d Preparation

A2D1 This preparation continues to give high marks for candidates. Generally errors in the calculation of the maximum mass in (a) were corrected by centre assessors before the marks for yield were awarded in (b).

A2D2 This straight-forward and successful preparation continues to give high scores.

A2D3 This is the more popular of the two organic preparations giving good yields of crystals.

Multi-stage activity

A2M1 A small number of centres took the opportunity to assess their candidates using this extended task. Within a centre it is allowed for some candidates to submit this task and for others to use separate c and d tasks as part of their mark profile.

Summary

The moderators thank centre assessors, candidates and technicians for their part in the implementation of the 6CH06 internal assessment scheme. Centre assessors must make absolutely sure that they are using the correct assessment tasks for 2012-2013. These are posted on the Edexcel Chemistry website from September, 2012.

6CH06/ 1B report

General

This was the third year that the component has been examined. Most centres have been with the scheme since its introduction, so have built up expertise in its implementation and administration. Teachers have built upon their experience of the scheme and prepare their candidates well for the assessment tasks. As in 2011 many high total marks were awarded.

There were fewer administration errors this year. However there remain some centres that do not include teachers' values with the sample.

Teachers are advised to read this report and the equivalent one for 6CH03/01B.

Comments on the administration of the scheme

Some comments made in the 6CH03/01B report also apply to this scheme.

- It is important that centres check that the candidate numbers on the record sheets are the same as those on the entry lists. When candidates complete the record sheet headings themselves this is not always the case.
- The scripts from some centres come to the examiner already marked by the teacher. Presumably this is done to allow the best assessment that the candidate has carried out to be included in the work sent to the examiner. This practice is acceptable but centres are asked to carry out any marking in pencil to avoid any confusion with the examiner's annotations and marks which must be in red.
- The examiner will only mark one each of the b, c and d tasks. If a centre sends all of the tasks carried out then the examiner will mark the tasks entered on the record sheet.

Assessments

Activity a(GPC)

Almost all centres now correctly complete the record sheets to list five core practicals as activity a tasks

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Activity b Qualitative observation

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