

As this is the last general examination of this syllabus, this report tries to place emphasis on general issues, rather than on specific content.

### The Paper

Unfortunately, a translation error (in the Afrikaans paper) occurred in Question 1.1, while we felt that the wording, layout and mark allocation for some questions was not up to standard. Nevertheless, it was a paper of good quality in which candidates with good understanding achieved very well.

### Problems in answering

In various questions where explanations were required (2.1.2, 2.2.1, 7.3.1, 8.4), candidates struggled to answer it in a complete and logical way. This should be addressed in teaching, and teachers are advised to study the memorandum to see what was required. Some candidates could give explanations only in the form of calculations, and not in words.

Candidates often knew the answer, but then wrote down only the explanation, and not the required answer. For instance, a correct explanation was supplied in 2.2.1, but the answer ( $T_1$  or  $T_2$ ) was often missing.

Many candidates left out units (e.g. 2.2.2, 6.2), used double arrows incorrectly in chemical equations or left out concentration brackets ([ ]), (e.g. 7.2).

Candidates often did not read questions carefully. For instance:

Compare HBr and HF in 2.1.2.

Giving "S" as an answer in 2.2.3, whereas a gas was asked for.

Many candidates struggled to formulate logical arguments. Question 8.3.1 was, for example, answered as  $E_{\text{cathode}} = -0,76 - (-1,16) = 0,9 \text{ V}$ , whereas candidates were asked to calculate  $-0,76 \text{ V}$ .

In structural formulae (9.2) many candidates believed that, if a bend is drawn in a chain, it represents a different isomer.

In Question 8.4 many candidates did not argue in terms of the relative strength of oxidising and reducing agents. Statements like "Copper is a stronger oxidising agent than zinc" point to a general misconception about the redox process.

In 5.1 few candidates could identify the cause of the decrease in mass. Answers like "The reactants are used up" indicated a lack of understanding of the conservation of mass in a chemical reaction.

The use of rounding and significant numbers was a problem in this examination (although candidates were not penalised for it in the memorandum). Candidates should learn the general rule that rounding only takes place at the final answer, while the unrounded value is maintained all along on the calculator. In Question 2.2, candidates who rounded the substance quantity (in mole) halfway through the calculation, obtained an answer that made it impossible to answer the next question.