Weaknesses

From the survey conducted, it is reported that there is a big improvement in measuring and recording of temperatures. We have been writing about this skill for quite some time and it appears that teachers and students have benefited quite a lot from the yearly reports.

The few weaknesses noticed were:-

- Measuring volumes of solutions using burettes. When using a burette one should ensure that:

  1) It is fixed vertically upwards.
  2) The eye is at the same level as the meniscus of the solution in order to avoid parallax
  3) As the end point is approached, the solution from the burette is released drop by drop and after each drop, the mixture is shaken carefully making sure that the mixture in the conical flask does not spill out. Candidates should be given adequate practice on the use of burettes and pipettes when measuring accurate volumes.

- Another weakness noted was on plotting of graphs. This is not the first time the weakness is being reported. Although there is a marked improvement on this skill, a large number of candidates have not mastered the skill. The weakness has been addressed in this report under 233/2 question 4.
- The other weakness was noticed in calculations involving the mole concept. There used to be serious problems in this area but it is going down. Teachers and students are reminded that constant practice (drilling) on calculations involving the mole concept will enhance performance significantly. Candidates should be given as many varied problems as possible to solve on their own. Solutions to such problems should be discussed in class and individually so that each student can discover his or her own weaknesses and rectify them before they sit for examinations.

Expected Responses

a)

Time (Secs)	0	30	60	90	120	150	180	210	240	270	300
Temp. (°C)	22.0	23.0	24.0	25.0	25.0	25.0	25.0	24.5	24.5	24.5	24.5