

It was evident that most candidates were well prepared for the question paper, although some individuals showed blanks in their knowledge. This is possibly because of the choice of questions available to candidates. Candidates should be encouraged to study the entire syllabus.

TOPICS

- **ELECTRICITY AND ELECTRONS IN ATOMS**

Candidates did not know or understand the use of a transformer. Many thought, incorrectly, that a transformer will operate with a direct current power source and that the soft iron core conducts current between primary and secondary coils. Many did not know why a laminated iron core is necessary for the working of the transformer. The difference between a step-up transformer and a step-down transformer and their uses should be stressed more.

- **WAVES AND LIGHT**

Electromagnetic waves, their origin and their propagation through space were not answered well. The frequency of a sound wave was given as kHz. Many of the candidates did not know what the "k" stands for. Single-slit diffraction was relatively well answered, but many candidates had problems with the terminology applicable to a wave diagram, as well as with the movement of points on a wave.

- **ATOMIC STRUCTURE, BONDING AND INTERMOLECULAR FORCES**

This section was well answered. Many candidates did not know of the difference between the different bond types.

- **ENERGY AND EQUILIBRIUM**

Although they know the terminology, candidates did not know the meaning of terms such as "activation energy" and "exothermic reaction". Attention needs to be given to the energy released or absorbed in the making and breaking of bonds. Candidates did not know the difference between the forward and reverse reaction of an equilibrium reaction.

- **ELECTROCHEMISTRY AND REDOX REACTIONS**

This section tended to clearly divided candidates into those who knew and understood the topic and those who did not.

- **PROPERTIES OF ELEMENTS AND ORGANIC CHEMISTRY**

Candidates who attempted this question tended to do well in it.