CHEMISTRY

Paper 0620/01

Multiple Choice

Question Number	*Key*	*Question Number*	*Key*
1	**C**	21	**D**
2	**B**	22	**D**
3	**C**	23	**B**
4	**D**	24	**A**
5	**A**	25	**A**
6	**C**	26	**D**
7	**B**	27	**D**
8	**A**	28	**B**
9	**B**	29	**C**
10	**B**	30	**D**
11	**B**	31	**B**
12	**A**	32	**D**
13	**A**	33	**A**
14	**D**	34	**A**
15	**D**	35	**A**
16	**B**	36	**C**
17	**A**	37	**A**
18	**B**	38	**B**
19	**C**	39	**B**
20	**D**	40	**C**

General comments

The mean mark for this Paper was 30.0, with a standard deviation of 6.3. The reliability coefficient for the items in the Paper was 0.85. All of these statistical parameters show that the Paper worked effectively in discriminating between the candidates.

Questions 1 and **2** were both quite easy but this is in line with having straightforward easy starters to help candidates settle down. Other questions found quite easy were **8**, **13**, **16** and **32**. The most demanding questions were **19**, **24** and **34**. Comments on these latter and other questions are given below.

Comments on specific questions

Question 4

The most popular incorrect choice was **A**. Perhaps these candidates did not read the question carefully enough in that they may merely have associated “paraffin” with “cracking”.

Question 5

In this case, **D** was the most popular incorrect choice. Isotopes, of course, have equal numbers of protons, not neutrons and candidates choosing **D** may be confused about which particle is which.

Question 6

A third of the candidates wrongly chose **D**. Was this because **D** was the odd man out in being an *He* atom rather than an *H* atom? Response **B** also had a nucleon number to proton number ratio of 2. As in **Question 5**, some candidates may be confused about the terms nucleon, neutron and proton and so failed to make the necessary subtraction to identify the key.

Question 13

This item proved to be rather easy for this 'full subject' syllabus in Chemistry.

Question 15

A third of the candidates chose **B**. Did they not realise that combustion is an exothermic process?

Question 18

This proved slightly harder than expected. The statistics hint at candidates either knowing the answer or merely guessing.

Question 19

Candidates found this harder still than **Question 18** but the 'guessing' comment above may apply here as well. This is somewhat surprising as the question is based on an identification test that is in the syllabus.

Question 20

About a quarter chose **C**. It is a common mistake made year by year that copper reacts with dilute mineral acids.

Question 24

A hard question but one that discriminated well. A third chose **A** rather than **B**. Extra care is needed when attempting to answer questions of the "*not*" variety.

Question 27

This question should have been one of simple recall but a third of candidates chose **A**.

Question 30

Candidates were not readily fooled by **B** but about 20% went for **A** and for **C**. The gas NO_2 is a pollutant present in car exhaust fumes but it comes from the reaction of nitrogen and oxygen due to the high temperature of the fuel combustion but not from the fuel itself.

Question 34

Only 45% answered correctly and nearly as many chose **C**. This seems to suggest that many candidates do not appreciate that acetylene is a hydrocarbon with a combustion product of carbon dioxide.