President : Dr. L. W. Masch, Hamburg. Secretary : Dr. H. Neugebauer, Baden-Baden. Treasurer : Dr. F. Keil, Hamburg.

I understand from Dr. Masch that they are anxious to hold a scientific meeting either by themselves or in co-operation with other International Cosmetic Societies, and that they are ambitious enough to think of a month in the middle of 1958. If this comes about, our own Society will be asked to support the meeting and, if possible, to supply at least one lecturer.

At the time of writing (mid-November), the German Society has just on forty members, a number which they hope to double by the middle of next year.

On behalf of the Society, I take this opportunity of wishing them all success in their new venture.

J. PICKTHALL, President.

# SOCIETY OF COSMETIC CHEMISTS OF GREAT BRITAIN

### THIRD YEAR DIPLOMA EXAMINATION

# PAPER ONE

THIS EXAMINATION was held at Acton Technical College on Monday, June 24th, and Wednesday, June 26th, 1957, two papers being set.

Candidates must answer Question 1 and any FOUR other questions. Do not attempt to answer more than five questions, including Question 1. Candidates should commence each question on a separate sheet of paper.

- 1. What use is made of the following substances in toilet and cosmetic formulations :
  - (a) Caustic Soda. (b) Caustic Potash. (c) Borax. (d) Triethanolamine.
- 2. An approximately neutral sorbitan monolaurate has the following characteristics :

Saponification value 175. Hydroxyl value 340.

A condensation product with ethylene oxide made from it has the following characteristics :

Saponification value 70. Hydroxyl value 135.

- What is the approximate percentage by weight of ethylene oxide in the condensation product ? What is the object of condensing with ethylene oxide ?
- 3. What precautions are necessary in preparing a clear lotion? Refer in your answer to different types of clear lotion.

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- 4. What are the three main classes of products for the artificial colouring of hair? Discuss the preferred uses for each type.
- 5. What is meant by allergy ? Discuss the possible dangers of cosmetics.
- (a) Name bacteria which are commonly present on the normal skin and scalp. (b) Describe a method of isolating these bacteria from a human subject.
- 7. Mention six ways in which vegetative bacteria may be killed, and write a short note on each.
- 8. Describe the two-phase aerosol system using a hair lacquer based on shellac and packed in a metal container as your example. Include a description of the conditions existing in the container before pressing the button and while the button is depressed.
- 9. In how many ways could you pack a liquid or cream shampoo? Discuss the advantages and disadvantages of each type of pack.

## PAPERTWO

Candidates should answer any FIVE questions. Do not attempt to answer more than five questions. Candidates should commence each question on a separate sheet of paper.

- 1. What are the basic requirements for a good nail lacquer ?
- A cold permanent waving lotion has been titrated for its content of

   (a) thioglycollic acid and (b) free ammonia. The results of the titrations were as follows :
  - (a) 2 ml. of the lotion were equivalent to 16.3 ml.  $\frac{N}{10}$  iodine solution.

(b) 10 ml. of the lotion were equivalent to 18.0 ml.  $\frac{N}{1}$  sulphuric acid.

Calculate the percentage contents of thioglycollic acid and free ammonia respectively in the lotion, and comment on these results.

- Give a description of the raw materials used in the manufacture of

   (a) toilet soap;
   (b) liquid soap.
- 4. There are three main classes of surface-active agents. Give an example of each, together with a practical use in cosmetic formulation.
- 5. Discuss the function(s) of the following substances in products for oral hygiene :

Precipitated calcium carbonate; sodium alginate; sodium perborate; sodium silicate; urea and diammonium phosphate; sodium lauryl sulphate.

- 6. Differentiate between chemical blending (ageing) and physical blending (fixation), and where possible illustrate by practical examples.
- 7. In setting up a manufacturing department for face powder, what equipment would you consider essential and why?
- 8. Write a short account of colours used in lipsticks.

#### COMMENTS OF THE EXAMINERS

# PAPER ONE

The answers to Question 1, which was compulsory, fell into two categories. The use of alkalis is dealt with in all three years of the Course and some candidates gave answers framed at the lowest levels and consequently gained very low marks. Others gave more advanced answers and gained fairly good marks. Questions 2 and 3 were not very popular but were answered moderately well. Question 4 was attempted by about half the candidates, but was not particularly well done. Questions 5, 6, 7, 8 and 9 were quite well answered by the majority of candidates.

#### PAPER TWO

Question 1 was generally answered carefully, except that no candidate mentioned the flow properties of nail lacquer. Question 2 was moderately well answered by the few students who attempted it. The answers to Question 3 consisted more of a description of the process of soap manufacture rather than the raw materials used. Question 4 was well answered. The answers to Question 5 were rather disappointing, as most candidates related the substances to toothpaste only. Most candidates had a fair knowledge of Question 6, but did not fully illustrate their answers. Questions 7 and 8 were fairly well answered.

#### LIST OF SUCCESSFUL CANDIDATES

Mr. S. C. Allen Mr. D. Cartwright Mr. E. K. Clarke Mr. N. D. Gardner Mr. J. M. Hustwick Mr. A. Marsh Miss B. L. Reeves Mr. B. Wheals

### BELGIAN SYMPOSIUM

THE Société Belge de Cosmétologie, of 17 Rue du Stade, Brussels, is organising an ambitious International Symposium of Cosmetology in 1958. It was to have been arranged for July, but has now been postponed to August 22nd-23rd (Friday and Saturday) at the request of the Society of Cosmetic Chemists of the U.S.A., which would apparently like it to be brought into line with the day of foundation of the German Cosmetic Chemists' Society, which was August 30 of this year.

The Société intends to have twenty papers read, each of which will be translated on the spot into French, English and German—according to whatever language it is given in by the *conférencier*. It is hoped to have two papers read by English chemists.

Further details are available direct from the Société Belge de Cosmétologie. As accommodation is very difficult in Brussels, they tell us, those intending to be present on this occasion are advised to book well in advance.



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