

# ENVIRONMENT

A MAGAZINE OF SCIENCE

Issued once each term in the interests of The  
Science Teachers' Association of N.S.W.

VOLUME II.

OCTOBER, 1934.

NUMBER 1.

## INFORMATION FOR CANDIDATES SITTING FOR THE FORTHCOMING INTERMEDIATE AND LEAVING CERTIFICATE EXAMINATIONS.

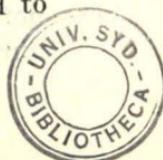
### A Summary of Information and Advice, Supplied by Examiners in Science Subjects.

#### GENERAL.

129141  
A  
THE examinations for which you are about to present yourselves are intended as a test of your knowledge and of your educational attainments. The examiners are human beings, who have themselves submitted to examinations, and who have many years of experience behind them in the examining of candidates; they are not imbued with any savage desire to fail candidates, but rather rejoice with everyone who passes, and desire to set such papers and award such marks as will ensure a pass for every normal student who has worked reasonably and conscientiously throughout his course, even in subjects which he imagines he does not like.

Do not rush. Do not be frightened of a paper. After all, you will meet many emergencies in life, apart from examinations in school subjects, and you will find that you are best able to deal with them if you relax your nervous tension and keep your head. Your ordinary school classes correspond to the routine of your future occupations; examinations, as well as being merely a test of your knowledge, are the unusual occurrences which test your ability to deal with a situation coolly and to the best of your knowledge and experience.

26 APR. 1935



So, again, do not rush. Settle yourself as comfortably as possible under the conditions, pick up the question paper, and read it through quietly, paying particular attention to the instructions included in the paper. Note how many questions you are required to attempt; note any special distribution of questions that may be demanded; note how many questions are set, and how many are set in particular sections, if the paper is divided into sections. See what choice you have. Take plenty of time over this—it will pay you to do so, because you are likely to become flustered if you find that you have made a mistake in the allotment of questions.

Do not become excited if you find as you read that there is some question or portion of a question about which you know little or nothing; even the best of us are quite unfamiliar with certain aspects of a subject, however great may be our knowledge of some branches of it.

Decide first what few questions you would actually like to answer, and answer them. Without flustering yourself, calculate what time, approximately, you can allot to a question, and refuse to be lured into spending much more time on a question than you should, merely because you can write quite a lot about it, or because you have gone astray; when you find that you are running beyond your allotment of time, leave the question and go on to the next on your list—you can always go back again if you have time to spare and, as I said at the beginning, the examiners really are intelligent people, and know the conditions under which you are working. Do *not* get upset and think your unfinished question is valueless—it is quite possibly worth nearly as much as if you had spent much more time on it than you should, and, at any rate, you will not do justice to yourself in the rest of the paper if you feel sick and miserable. We all know the feeling.

Having answered the questions that you have taken as your first choice, you can pick out questions that you may not like so well, and answer them. Watch your allotment of time, and watch your distribution of questions. There may be a definition, or a minor part of one of these questions, which you cannot answer; do not reject a question for that reason: it is better to answer what may amount to from nine-tenths down to

half a question well rather than a whole question badly merely because you feel restricted to that one.

Having answered the full permitted number of questions, or as many as you can, check them through in your paper and see that you have not more "broken" questions than the full allotment—for instance, if required to answer six questions, that you have not five answered fully, and bits of two or more others. Each portion of a question counts as a full question *attempted*, unless you are otherwise informed on the paper; you may penalise yourself severely by thus thoughtlessly "attempting" eight questions or so instead of the six (possibly) permitted.

Time permitting, read quietly through what you have written; do not mutilate it—it is very annoying to an examiner to meet a jumble of words and figures in which it is difficult to tell which is correction and which is original; if you write calmly and thoughtfully when you are answering the question in the first place, you can do more good by adding statements at the end of the question than by interpolating throughout the question. For that reason, a few minutes spent sorting out your ideas and formulating your method of attack before you write your formal answer, are well spent. Do not ramble.

Your state of health is important; you should not approach an examination feeling tired and irritable. Eat well and rationally, get plenty of sleep at night and some exercise during the day; that does not imply that you are a gladiator being trained for the circus, but that you are an intelligent person trying to be at your best during what must admittedly be a period of excitement. Do not "cram" until the last moment—it does harm, not good, because you tend to militate against your own success. The examiners are testing you on what you have learnt over several years, not over a few weeks.

Finally—you will not fail if you have studied conscientiously, even though you may not do as well as you expected; and it would be luck comparable to winning a lottery if you passed by cramming at the last.

#### PHYSICS.

The above general remarks apply. It should further be mentioned that some students may have followed the

old syllabus, some the new. Efforts have been made to penalise neither. You are not expected to know everything in either syllabus, and may quite probably be able to use information you have gathered on subsections beyond the syllabus.—E.H.B.

#### BOTANY.

The Editor has asked for a few paragraphs likely to be helpful to candidates in the Botany examination.

The first piece of advice that I would give to any candidate—and it applies to all subjects, not only Botany—is, *read* the questions *carefully*. Then *think*, exactly what is the information asked for? Then write *concisely*, keeping strictly to the point. Irrelevant matter, even if quite correct, does not create a favourable impression upon an examiner who has several hundred more answers to read and who wants to get the job done so that he may be free, if possible, by Christmas time.

Secondly, most answers call for figures. These should usually be drawn *first*, before anything is written, or at least, introduced throughout the answer as the point each illustrates is reached. Too often the figures are given at the end of the answer—thrown in, as it were, to satisfy the examiner's requirement. Candidates who do so fail to make use of something that should be of great aid to themselves in helping to clarify their ideas before setting them down in words. They might also remember that, from the examiner's point of view, every picture tells a story. If the candidate really knows his work, it shows up at once in the diagram; if he does not, it is much harder to cover the deficiency in a diagram than in a maze of words! Figures or diagrams are not the same thing as artistic pictures, and no candidate should hesitate to draw them merely because he has only average artistic skill.

This comment leads naturally to one on notebooks. It is still painfully obvious that some candidates labour quite fruitlessly upon these in a pathetic attempt to cover up by worked-over drawings, shading, fine lettering and so on, what is the real deficiency—lack of accurate observation in the first place. Again, other candidates,

who have produced sound workman-like diagrams, labour quite needlessly to improve them and attain some incredible standard of excellence in the finished work. It is all to little purpose, for the time would generally be much more profitably spent in sketching more specimens or in doing some reading or, perhaps, in relaxation from work altogether! After all, the notebooks are *laboratory* notebooks. They should contain neat and accurate impressions of practical work with the essential minimum of labelling—they are not meant to be finished artistic productions and time spent in an endeavour to make them so is being wasted.

Failure to make the best use of their practical work shows up in many candidates' answers over all grades. In 1933 many Intermediate candidates were quite unable to draw a reasonably accurate Liliaceous stamen or pistil. At the other end of the scale, many honours candidates who, making really beautiful drawings of the *Tristanea* shoot supplied, omitted to interpret the morphological features that were shown by their drawings with the accuracy and diagrammatic effect of a first-class text-book figure.

The above are general comments. Detailed comments on the examination papers and suggestions for interpretation of the syllabus have been given for some years past in the examiners' reports.—T.G.B.O.

---

## NOTES ON THE LIFE OF A GREAT AUSTRALIAN SCIENTIST.

---

THE following article is contributed by Professor L. A. Cotton, M.A., D.Sc., and by Assistant Professor W. R. Browne, D.Sc. It represents an outline of the scientific life of that great scientist and gentleman, Professor Sir T. W. Edgeworth David, K.B.E., C.M.G., F.R.S., M.A., D.Sc., who died in Sydney on August 28. It is the summary of a brief address to the Royal Society of New South Wales, given by those two of his colleagues, at the first general monthly meeting of the Society held after his death; and is, as the title shows, but a collection of notes on a few aspects of the life of an eminent scientist who has inspired and will continue to inspire many younger men.