

**HAVE A  
QUESTION?  
ASK OUR  
EXPERTS!**



**ASK A VCAA ASSESSOR**



**As students prepare for their exams, questions that only assessors can answer often pop into mind. Unfortunately, most students don't have access to assessors in most of their subjects, so we took your questions and presented them to a senior VCAA assessor. Here are his/her answers.**



# ACCOUNTING

**How do you know from the given lists what needs to on the statements they ask for?  
e.g. inventory write down.**

There are templates in the Accounting Study Design for journals, ledgers, inventory cards and the 3 reports. The templates for the 3 reports are not that helpful (especially for the Income Statement). The second attachment shows complete examples of the 3 reports. These must be strictly adhered to.

**Hi, I was wondering if there is a resource which specifies which questions from past VCAA papers for Accounting are still doable for the new Study Design?**

Terminology has changed in some cases. Therefore, past questions can sometimes become more confusing than beneficial. You will need to refer to your teacher for advice on individual questions. I have used past questions this year, but I have modified nearly every question (and answer) I have used in order to fit the new course. Try and stick to all the exams/questions written in 2019 for this new course.

**Which ledger accounts should I abbreviate?**

No abbreviations are allowed, save for GST Clearing. When writing Accounts Receivable or Accounts Payable, always remember to write the customer or supplier's name as well. Abbreviations such as Acc. Dep. (Accumulated Depreciation) or Accs. Rec. or Accs. Pay. are not allowed. Every effort must be made to write the title in full. Maximum 1 mark deduction per question for abbreviations (Note: when writing Accumulated Depreciation you must also state the non-current asset type).



**What are your thoughts on rote learned answers for common theory questions? e.g as the justification of certain items as particular accounting elements or reducing vs straight line depreciation.**

Will at best get you 1 mark only. Must always link your answer back to the question.

Example: Explain your treatment of Prepaid Rent in the Balance Sheet. Model answer – Prepaid Rent is reported as a current asset in the Balance Sheet. (1). The benefit is controlled by the entity and represents a future economic benefit to the entity. (1). In this case, the entity will benefit from use of the building for the future XXX months. (1)

**What are some common, avoidable errors that students consistently make year after year on the final exam?**

Not a complete list, however;

1. No abbreviations.
2. Correct dates in all journals and ledgers.
3. Make sure the right accounts go in the right reports (e.g. Rent expense is an expense in the Income Statement, whilst Prepaid Rent is a Current Asset in the Balance Sheet).
4. Are the reports in the right format?
5. Balance or close ledgers correctly (what is the difference?).

The list could go on. Read the past two years Chief Examiner's Reports to get an idea

Of the sorts of common errors made by students.

The Ethical Question

The inclusion of this section in the new course has caused some confusion amongst both teachers and students about the types of questions that maybe asked. Our expert VCAA assessor shares his opinion regarding what types of questions may be asked. This report can be accessed by clicking on the link below.

**How do I know the extent to which I should discuss a financial indicators question without using too much time or over-discussing?**

For theory responses you need to be averaging one mark every 15-20 words. Hence a four-mark question should be answered well in 60 – 80 words. Remember, you do not need to calculate ratios but you need to be able to address the following:

1. Clearly explain what the ratio is measuring.
2. Clearly identify the trend (if a number of years of data are given).
3. Provide reasons why the trend is improving/deteriorating.
4. Identify possible strategies to improve the outcomes.

**Do you know how the 'ethical' type questions will be marked this year?**

It is not productive wasting time trying to predict questions on an exam. However, I would go so far to say that I would expect a 4 mark ethical consideration type question and a 4 mark Doubtful Debts question. Refer the appendix below for my thoughts on the ethical question.

**Will I lose mark if I write 'Dep' and 'Acc' instead of depreciation and accumulated depreciation? –**

See above – you cannot use abbreviations such as 'dep' and 'acc'.

**Will I be given some spare paper if I ask for them?**

Yes. Just ask for spare paper. However, in 28 years of marking VCE Accounting, I have never seen or marked a student who has used extra paper.

**How should I structure a discussion question worth 6 marks and theory questions with Accounting assumptions or qualitative characteristics?**

Accounting marking has moved towards “global marking” for the 6-mark question. Markers are given a solution with perhaps 8 or 9 points made. Markers are instructed to read the response once and quickly categorise the answer into one of three categories (1-2 marks, 3-4 marks or 5-6 marks). Then they are instructed to read the response a second time to decide whether the response gets the lower or higher mark within the category. To get a 6/6 mark, the markers are looking for a good coverage of the 8 or 9 points on the marking guide. Hence, it is possible for two students to write quite dissimilar responses, yet both be awarded 6/6. Note: not all 8 or 9 points need be mentioned to get 6/6.

# **BIOLOGY**

## **Why is Biology 1 & 2 different to that of 3 & 4?**

Biology is a very detailed study so it has always been separated. U1/2 give a general Biological understanding of cells, organisms and their interactions and reproduction and genetic inheritance. It is a general introduction for U3/4 but is a stand-alone course. U3/4 goes into the more specific levels of detail of Biology and is similar to that in lower tertiary studies.

## **How can I ensure I'm getting the most marks for my answers?**

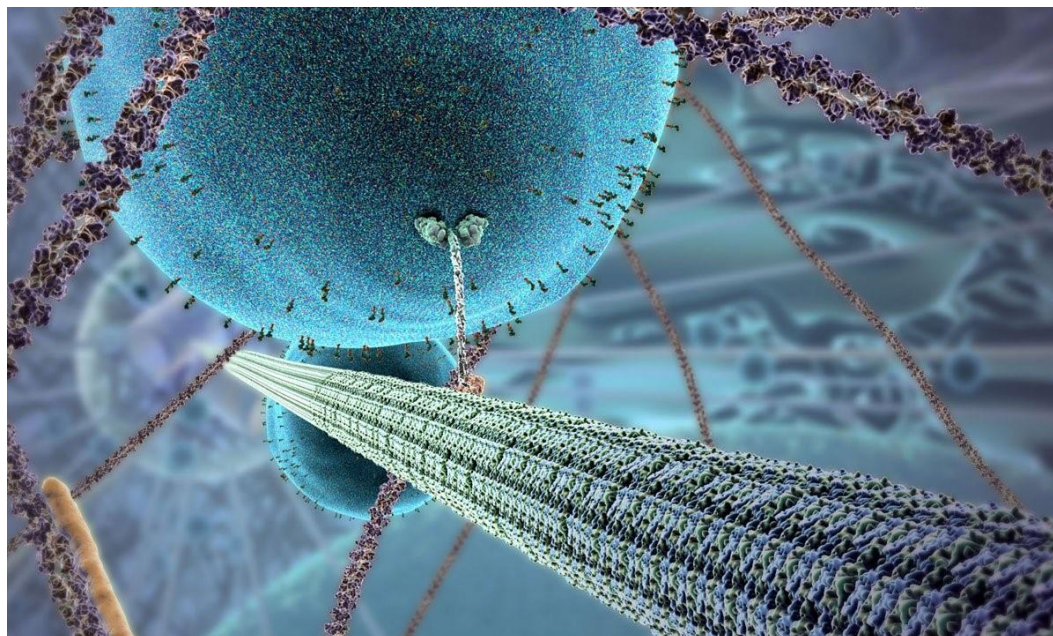
Try to put all required information into your answers – look at the assessors reports to see what key points were expected to be included.

## **How should I revise for exams?**

Do as many past VCAA papers as possible – especially ones for the current study design.

## **How can I work through past exams most effectively? Should I be focussing on completing the exam as a whole or questions on certain topics?**

This is very individual. If there is a particular area you find more difficult then work on that first looking for these questions from past papers. It is important to also do full exam papers to be used to changing your focus between the different topics. The past current study design VCAA papers 2018, 2017, 2016 should be done this way.



## **How can I use the assessment report to maximize my marks?**

Read the suggestions given in the reports as they focus on the main responses expected and also point out any specific ideas needed as well as common errors found in student responses.

**I have looked though a few past exams on the vcaa website and I was wondering if definition questions will be asked? My teacher said it is important to memorise definitions, but I don't see it as worthwhile, considering as it will not be explicitly asked.**

While definitions may not be asked explicitly there are questions asked where the response requires those good full definitions as the response. These may start with "What is meant by ...", "Compare ....and ....", . it is useful to learn full definitions especially for the terminology in U4 AOS1 so you can include this in responses eg gene flow, gene pool, population, species.

**This is something my teacher was unsure of for the exam. When we are referring to B and T cells, does it matter if we say 'helper T cells' or 'T helper cells' or is it fine to say either? This is similar to 'Plasma B cells' or 'B plasma cells'.**

It is fine to say either in both cases.

**Is light an input of photosynthesis or is it just a factor for photosynthesis to occur? Does light and chlorophyll need to be put in the photosynthesis equation?**

The inputs are expected to be the molecular inputs – water and carbon dioxide. These are the main ones to write. If you include light it will not be marked as incorrect but it should be put as the 3rd input not your first one! Yes both light and chlorophyll are required above and below the arrow in both the worded and balanced chemical equations.

**Is writing in dot points alright for short answer?**

It is preferred to have answers in full sentences to give the flow of the response but dot points will be fine and marked fully – these are useful particularly for process questions responses eg Natural selection, protein synthesis.

**What is the best advice for remembering all the content of biology because of how content heavy the subject is?**

Hopefully you have made summary dot points of the content over the year – if not use the Key knowledge dot points in the Study design. Looking at these repeatedly will help you remember the key ideas. Doing past exam papers will help imprint the main content ideas too.

**I have seen many different numbers everywhere, ranging from 26 to 38 so I was wondering how many molecules of ATP are produced from the electron transport chain?**

The expected values for ATP production in aerobic cellular respiration in the biology course is: 2ATP in glycolysis, 2ATP in Krebs cycle, 32 ATP in ETC – this gives the 36ATP total that applies to all cells undergoing this process.

**I have noticed on the assessor's reports that the responses given are not supposed to be exemplary or complete responses. If I gave those responses in an exam, would I get full marks? Should I give responses like them?**

The assessor report responses indicate the expected panel's responses and other acceptable common responses. They are written in a concise manner to give the key ideas.

Writing answers like this are suitable however they are just indicating the key ideas applied to the marking scheme. Being able to expand on these points is useful.



**I have been averaging around the 60s this year for my sacs. If I work hard now and manage to get good on the exam can I get in the high 30s or low 40s?**

SAC scores sent to VCAA are an indication of your ranking – performing as best you can in the exams will enable you to maximize your study score and may allow your ranking to improve.

**What are the best possible ways to understand all the concepts and prepare for the exam?**

Use the Key knowledge dot points in the Study design and doing past exam papers will help imprint the main content ideas and assist your understanding too.

**I am doing early commencement biology and every time I do a practice exam, I always lose few marks on multiple choice questions. What is the best way to prepare for the exam so I can lose minimal marks?**

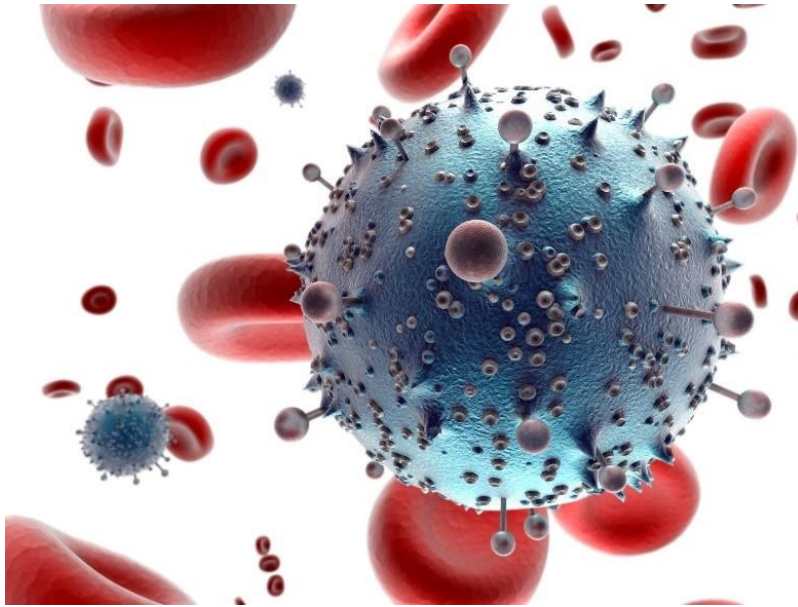
Multiple choice questions can be tricky so it is important that you read them accurately – underline the key words – and then look at responses closely. You should be able to eliminate 1 or 2 responses based on their wording being incorrect. Then carefully re-read the responses you are choosing between to look for that point of difference. Doing lots of practice questions will help with this.

**For the full balanced equation of aerobic cellular respiration, is 30-32 or 36-38 ATP produced?**

For all cells the overall aerobic cellular respiration final ATP production is 36ATP – this is the expected number.

38ATP are produced in specific animal cells so this is why 36-38ATP is acceptable too – however 38ATP by itself is not!

32ATP is only referring to the Electron transport chain ATP production.



**Do you prefer students to answer in full sentences or in dot points? Will you lose marks if answers remain in dot points?**

It is preferred to have answers in full sentences to give the flow of the response but dot points will be fine and marked fully – these are useful particularly for process questions responses eg. Natural selection, protein synthesis.

**For the evolution unit, what names of all the developmental stage of human evolution are we to know? For example Homo Habilis, Australopithecus etc. As all textbooks differ is there a set order we must know for exams and also their dates?**

You are expected to know the main “players” in the hominin evolution with regard to structural comparisons and cultural evolution. Eg ~ 7mya hominin speciation, ~4mya Australopithecus afarensis, ~2mya Homo habilis (tools), ~1mya Homo ergaster/erectus (fire), ~130,000 Homo sapiens

Also know the relationship between Homo sapiens and Homo neanderthalensis and Denisovan evidence.

**When studying for Earth’s Geological History, which periods do we need to know exactly for exams? Many textbooks vary with some mentioning the Precambrian eon but others not. So is there a list of eras we are meant to have an understanding of in terms of years for the exam?**

Just have a general idea that the 4 eras are developed based on major changes to biodiversity / complexity and appearance of a new dominant group.

You should be able to recognise the names of the eras and the order they occurred in: Precambrian, Palaeozoic, Mesozoic, Cenozoic. You do not need to know the actual dates.

**When a question asks list or describe, do I have to explain or go into detail about the topic, or can I dot point the information?**

If asked to describe then you usually have data to refer to as evidence, to describe what has happened or is happening. You must include this evidence in your description. You can dot point the information but full sentences are better but you do not lose marks for dot points – points are allocated to including the required ideas in your response. If asked to describe a full explanation of the theory is not required but you need to “explain” your response by referring to data or evidence.



**In how much detail do we need to know about the complement system, apoptosis (the two pathways/Caspases)?**

You need to know the role of complement proteins as a chemicals involved in the second line of defence – coating the Ag/Ab complex and flagging phagocytes to the area, able to lyse bacteria.

You should know examples of stimuli for both intrinsic and extrinsic pathways. Also extrinsic involved death receptors on the external cell membrane whereas intrinsic involves mitochondrial destruction. As far as the apoptotic steps after stimulation you are expected to mention caspases released/activated, breakdown of organelles, cell shrinking and blebbing, apoptotic bodies/cell breaks apart. See 2016 VCAA assessor report Short Answer Q3.

**In how much detail do we need to know the geological history (do we need to know all the mass extinctions? All the dates when the different hominins were around?)**

Just have a general idea that the 4 eras are developed based on major changes to biodiversity / complexity and appearance of a new dominant group.

You should be able to recognise the names of the eras and the order they occurred in: Precambrian, Palaeozoic, Mesozoic, Cenozoic. You do not need to know the actual dates. You are expected to know the main “players” in the hominin evolution with regard to structural comparisons and cultural evolution. Eg. ~ 7mya hominin speciation, ~4mya Australopithecus afarensis, ~2mya Homo habilis (tools), ~1mya Homo ergaster/erectus (fire), ~130,000 Homo sapiens. Also know the relationship between Homo sapiens and Homo neanderthalensis and Denisovan evidence.

**What exactly do we need to know for the molecular clock? Do we need to know any calculations for it?**

You need to understand how it is used to determine relatedness.

**Knowing the mutation rate of specific genes it can be use to determine how long it would have been for the two species being compared today to have become genetically different – this relates to the time of speciation form the common ancestor.**

You do not have to do any calculations.

**What is the difference between design and outline an experiment?**

There is no difference – they both are asking for a plan for a controlled experiment to test a hypothesis. You need to mention 2 groups set up, IV, DV, controlled variables, repeat of expt.

**When stating iv do we say both options? For e.g. presence or absence of drug ... OR JUST... presence of the drug.**

The IV is what is being changes so if the drug is being given then the IV it the presence of the drug or the amount of drug present. You do not need to mention both.

**Do we need to know about specific plant hormones?**

You do not need to know the detail of each plant hormone group. However, you do need to know the action of the hormones at a cellular level – signal transduction – based on lipid or water soluble properties of the hormone. It is handy to know the name of each group.

**Is it alright to write on the side and under the lines given, will that writing be assessed?**

You need to write inside the boundary area of the exam paper as this is the area being scanned. If you do not have enough space in the lines section given for the response you can write in a blank area, but you must indicate it is continues below. Do not write response on another page. If you need to re-write a response call the supervisor over to give you a new booklet to write in that response in and indicate on the main booklet question this is what has happened. This ensures your response is scanned correctly.

**For PCR, can we write a temperature range for e.g. for annealing 50-60C?**

It is fine to write this range as long as it is not beyond the range. Generally Denaturing is 94-96C, Annealing 50-60C, Extension 72C.

**When writing the full equation for photosynthesis and cellular respiration, do coenzymes such as NAD<sup>+</sup>/NADH need to be included?**

You do not include the coenzymes in the overall reactions as they are not part of the reactants and products of the chemical reaction. They are acceptable as inputs and outputs of the process or steps involved.

## **BUSINESS MANAGEMENT**

### **When is it necessary to reference contemporary businesses in our answers?**

When the question asks for it. In the 2018 exam there was a specific 6-mark question that required the student to refer to a business. There was no such question in the exam in 2017. The question is listed below and needed the student to explain the importance of leadership for 2 marks and then use a business to support their answer for the additional 4 marks. The student had to show how leadership helped the business achieve change. Many students wrote about the ban of single use plastic bags in 2018 – but had to word it from management's point of view.

*Question 2 (6 marks) Explain the importance of leadership in change management. In your response, refer to a contemporary business case study.*

It is not necessary to refer to a contemporary business unless the question asks for it. You should prepare a brief outline of an example and the plastic bag scenario is fine as it is within the four-year limit. Be able to write about it from the point of view of change, operations and managing employees.

### **What recommendations do you give in preparation for the exam?**

Firstly, you need to have prepared your own summary notes. This is a must and should have been completed by now. Then play some baroque music to prepare your brain for study. Sit in a quiet area with water and extra paper. Study an area of the course e.g. area study 1 of Unit 3 then create mind maps of what you have learned. Continue this with each of the areas of study. Once you have covered the course attempt a practice exam. Get feedback from your teacher on the exam. By now you should have done at least 3- 4 practice exams – there are 3 on the VCAA website – sample, 2017, 2018 and then your teacher should have given you some to do over the holidays.



### **What differentiates a B student from an A+ student?**

The difference between a B and A+ student is their positioning in the sac marks during the year and their exam result. If you got a B or B+ during the year and then you get an A+ in the exam you will end up with a result of high 30's. To get the 40+ score you need to be sitting on A+ scores all year.

### **What is a common error that students make in business management?**

The most common mistake made by students in the exam is that they fail to read the question properly and do not address the task word. If it says discuss then the student needs to provide advantages and disadvantages, if the task word is 'compare' then it is similarities and differences. The other common mistake is that the student does not look at the mark allocation which really tells them how much detail they need to provide. Also where there are options there is always a best fit answer which will allow the student to obtain maximum marks. Students also tend to confuse the 13 different strategies or concepts in the course – motivational strategies are not corporate culture strategies nor are they performance management strategies. This is why you need to do lots of practice exams to be able to familiarise yourself with the different range of questions that may come up on the exam.

### **What makes a high scoring student set apart from the rest?**

The high scoring student has prepared their own summary notes, started revising and has done 5 practice exams by now. They will do at least another 5 before the exam and go over at least one with their teacher to find out where they can improve. They would have attended a revision lecture hopefully at TSFX and are so confident about their preparation they are ready for the exam. The other thing is they read the questions carefully and answer them with detailed, specific and relevant answers not going off on tangents but focusing on what the question is asking.

### **What structure do you give for answering questions, especially those worth 5+ marks?**

Higher scoring answers – 7, 8 and 10-mark questions need a quick plan to ensure that all points are covered. Not a detailed outline but a few key words to ensure that the student covers everything the question is asking. They are usually the high order thinking questions that differentiate students and would have task words like analyse, examine, evaluate – challenging the student to think more deeply about the question. Use paragraphs and be clear about what you are trying to say in these big mark questions.

### **Can you exceed the amount of lines when you're writing a question?**

Yes you can – write below the lines not on the sides and ask for an extra script book if you need it. Be clear if you have written an answer in another part of the booklet then indicate this on the question and answer booklet so that it can be found.

**A question was “compare why would a private limited company be more suitable than a partnership?” How would you answer that if you're supposed to compare, because you're supposed to list advantages, similarities, and differences at the same time.**

You begin with similarities – both are types of businesses, both are driven by profit, both have a limited number of owners or shareholders that need the approval of the rest of the shareholders or partners.

Then you go for the differences – partnership 2-20 partners, unlimited liability whereas, private company 1- 50 shareholders with limited liability.

In a compare type question you never refer to advantages and disadvantages only similarities and differences and always start with similarities as you tend to forget them in your answer. For 4-mark questions one of each is fine, for 6-mark questions then I would go for two of each with more detail.



### **How should students approach the 10 marker questions that require them to evaluate a statement?**

Firstly, plan the answer – just a few dot points to ensure that you have got your thoughts together. With evaluate you need to explain the business concept – like what is on the job training then go into at least two strengths two weaknesses and an overall conclusion. You are looking at one and half pages of writing that showcase your knowledge and understanding of the key knowledge in the question. As long as you have strengths and weaknesses and a good conclusion then you will earn the marks.

### **Should you define every term when it says to explain, describe or evaluate??**

No certainly not. But if you are writing about management skills – then define these first – they need that explanation to make sense, elements of an OM system – you need to define each of them – inputs all resources required in the production process. You can weave a definition into your answer if you are worried but if the question does not ask for it then no marks will be allocated. Having said that it is hard to discuss if you don't say what the concept or strategy is first. If you have a CSR question you do not have to get bogged down with what CSR is unless it is asked for. Read the question carefully, use your judgement and if in doubt use a definition. But remember if you spend your time defining every single concept or term then you may run out of time to finish the paper. This is why you need to do lots of practice exams – you will get the feel for the questions.

In the 2018 exam Q1a needed a definition, Q1b you would have explained the business objective so there is a bit of defining happening there, Q3a definition of KPI's, then Q3b redeployment of resources – you have to say what it means before you can explain it in the context of the question otherwise it won't make sense, Q5a – need to describe both so you would include what they were in your answer – weave in what forecasting is and web development. In Part B look at Question 2 – Describe the key elements of an OM system – you need to start your answer by writing about each element and then applying it to the scenario.

Look at the marks, look at the task word and decide if you think it needs a definition include it.

**For Lean Management, what principles of lean management would you recommend to use in responses?**

You can write about TIMWOOD, pull demand – zero defects – you need to be able to explain the principle and then apply it to the scenario – have a look at the 2017 exam paper and the report – I tend to favour the pull demand because it is easy to remember then you can include JIT to only order materials for products that customers are willing to buy.

**I have been told I have terrible handwriting. Will this cause me to lose marks?**

No, but if it is hard to read then it will be read by hard copy. Use a black pen and try to make your handwriting clear. If it can't be read, then marks will be hard to allocate but rest assured that markers are experienced and will do everything they can to read the paper and ensure you get the marks you deserve.



**What should I concentrate on when responding to questions? What will give me full marks?**

Answering all elements of the question. Look at the task word – have you addressed it in your answer. Have you looked at the marks – this tells you the detail required. A good answer that addresses the question and is confidently written will get the marks. If you can convince the assessor you know your business concepts, strategies etc. then you will get the marks. If you have a definition question and its 2 marks then 2 clear points are required. If you have a four-mark question on two management skills – then 1 mark for the description or definition of each skill and 1 mark for the application to the scenario. Answer exactly what is asked and you will get the marks. Do lots of practice questions to gain experience in what is expected and get teacher feedback.

**How do I receive full marks on evaluate questions? Can I give weighted advantages/disadvantages? e.g. say 3 advantages and 2 disadvantages and then give a concluding statement weighing with the advantages?**

If your answer addresses all the elements of the question in a clear, detailed and specific way then you will get the marks. You do not have to have the same no of advantages and disadvantages as long as they are well explained. It is fine to decide one way rather than the other as long as you back it up with reasons for your choice.

**What is the best business that I should study?**

I would still go with Woolworths and the single plastic ban in June of 2018. Covers CSR – as it was being more environmentally friendly that drove that change. It had repercussions for management employees and customers – they all had to change the way they operate or shop. It was a cost saving measure as Woolworths was sending 3.2 million dollars a year on plastic bags. It is easy to write about and still relevant this year.

## CHEMISTRY



**I have looked through a few past exams on the vcaa website and I was wondering if definition questions will be asked? My teacher said it is important to memorise definitions, but I don't see it as worthwhile, considering as it will not be explicitly asked.**

The definition of chemical terms is not usually asked such as 'What does boiling point mean?' However, if they ask 'Explain the reason for the changes in boiling point in the homologous series of alcohols.', you would need to know the definition of boiling point, homologous series, alcohols as well as dispersion forces, hydrogen bonding and dipole/dipole forces. Even though a 'simple' question of 'Write down the definition of boiling points' is not expected on the exam, you will need to incorporate its meaning and be capable of applying the meaning to new situations. It is critical that you can EXPLAIN not just MEMORISE each chemical concept and term used in Units 1,2,3 and 4.

**Do you prefer students to answer in full sentences or in dot points? Will you lose marks if answers remain in dot points?**

Answers to questions can be put into dot points. However, if you are asked to 'Explain' a concept or 'Justify' your answer, it is better for you to write it in full. Examiners have to be able to understand your answer to give you marks, so the easier you make it on them, the more likely you will receive full marks. Secondly, please DO NOT ABBREVIATE words, unless you have explained your abbreviation. If you write L.C.P. instead of Le Chatelier's Principle WITHOUT DEFINING IT, you may not receive any marks for it.

In the last few years, VCAA is expecting students to be able to explain concepts and validate their conclusions for more questions than they have in past exams. If your dot points are not well explained, your answer will not receive full marks.

### **What do students lose the most marks for on an exam?**

This is dependent on the year the exam was written and on the knowledge of the student. Most of the time, marks are lost by students who have not read the question completely, hence they do not answer all the parts of the question. Please read Chris Dwyer's articles in "The Age" over the last couple of years, he provides a different perspective on what students do or don't complete well each year. This article changes every year and the examination changes every year.



### **What are the rules for significant figures? Do you accept a range of answers that are close to the correct answer? Thank you.**

Your final answer should have the same number of significant figures as the least number of significant figures in your data. There is a range that is available for each answer, but not a range in significant figures. Please ensure that you have the correct number of significant figures in your FINAL ANSWER. Do not round up, to the required number of significant figures until the last answer. Only your final answer needs to have the correct number of significant figures.

### **Will questions asked in the exam always relate to a study design dot point? Or will there be questions that may deviate from the study design and require general knowledge? Thank you.**

The questions that are on the examination will relate to the study design. However, the situation that is presented may be a 'new scenario'. So, you may be expected to think on your feet, review all the concepts that have been taught and use what you believe is applicable.

**Should we always put states in equations, even if it is not asked for? Thank you.**

Please provide states whenever possible. Read over the information that is provided, often they will tell you the states of each compound in the question. The only area where they will not expect states is in the organic pathways.

**Are we allowed to refer to our data books during reading time? Thank you.**

You are permitted to look through the examination booklet and the Data booklet during your reading time. You are not permitted to pick up your pen and write during your reading time.

**How are significant figures marked? Do you lose a mark every time you get it wrong?**

Significant figures are expected all the time. Please ensure that you check the number of significant figures for EVERY QUESTION. You will lose a mark anytime your answer is not within the correct range of answers and if the correct significant values are not provided. Ensure that you use the correct significant figures always.

**How strict are assessors on rounding errors? say you use an earlier rounded answer and are off by 0.1 or 0.01, will you lose marks?**

Rounding incorrectly, before the end of the calculations is a BIG MISTAKE. Please ensure that you DO NOT ROUND UP/DOWN your answer UNTIL THE VERY END OF THE QUESTION. Leaving your answer to 4 or 5 significant figures is ideal during your calculations. Rounding your answer early will incur errors.

**Will I lose marks if I don't provide an answer with the appropriate significant figures? E.g. If I write 30.55 instead of  $3 \times 10^3$ ? And vice versa?**

Absolutely! If the information that you are provided is to 1 significant figure, then your answer must be to 1 significant value. The answer can only be as accurate (in terms of significant figures) as your original data. Hence 30.55 has 4 significant figures while  $3 \times 10^3$  has only 1 significant figure.

**What are some topics found in the Course work that is generally not tested on the VCAA Exam?**

Awesome question! If only I knew! If only anyone knew! We do not know. Most of the topics are covered every exam. The study design is too big to include a question about every aspect but usually most of the topics are covered. The writers of the examination can pick and choose different sections or different ways of asking questions every year. Hence every year has different questions and a different focus.

**For combustion equations, should the state of water be in the liquid or gaseous form?**

Water should be shown as a gas, since combustion usually occurs at temperatures higher than 100°C, then water should be gaseous. However, you may write the state of water as a liquid, this is acceptable.

**If there's a percentage number in a question, and it has the lowest significant figures, does our final calculation have to be based on the significant figures of the percentage? Or does the percentage not affect our significant figures answer?**

In general, the significant figures that count are of the measured quantities such as mass/concentration/number of mole. If the percentage is related to the mass of a compound or element in the ore it will be important. It is important to read the question carefully, will you need this percentage to complete a calculation? Is this percentage providing you with important data to complete the question? If yes, then the significant figures of the percentage will need to be taken into account.



**Does it matter which monosaccharide loses the H and O atom when glycosidic links are formed? If yes, how do we determine this?**

It does not matter which O and H is lost or left as each OH on both sides of the monosaccharide are identical. The examination will not ask you which oxygen or hydrogen from the OH groups is kept or lost.

**How do we determine the change in oxidation number of an element, when two of the same element in different molecules are formed in the products. FOR EXAMPLE: oxygen in the equation:  $\text{CH}_3\text{CH}_2\text{O} + \text{O}_2 \longrightarrow \text{CO}_2 + \text{H}_2\text{O}$**

In this case, you will notice that in the reactants we have  $\text{O}_2$  (g) which is in its natural state, so its oxidation number will be zero while in both products the oxidation number of oxygen is -2 ( $\text{CO}_2$  oxygen is  $-2 \times 2 = -4$  while carbon will be +4, while in  $\text{H}_2\text{O}$ , Hydrogen is  $+1 \times 2 = +2$ , hence Oxygen is -2). Hence this will be a redox reaction where oxygen (from oxygen gas changes from 0 to -2) is the oxidant.

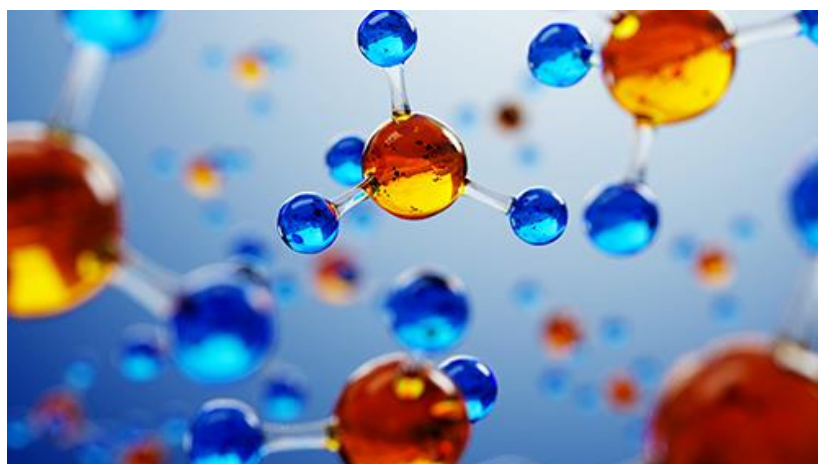
Therefore, you will need to check the oxidation number of the 'same element' in all of the reactants and products to determine if a redox reaction has occurred and which element/compound has undergone oxidation or reduction.

**Hi there! Do you penalise students for taking up more space than the lines on an exam paper? I have big handwriting and sometimes I can be pretty inarticulate, so I usually end up taking up more space than is given, sometimes going into the margins. Is this just annoying or is it something I can lose marks for? Thank you!**

Hi! You are asked not to write in the margins, this is clearly written on the examination paper. If you run out of space, please write a note under the question to say where the rest of your answer has been written. As the papers are scanned and split up into each separate question, it is critical that you specify where we can find the rest of your answer.

**Hi, what are the best (most accurate in terms of difficulty) practice exams to do for Chemistry? Which of the trial companies is most suitable (Neap, Lisa Chem, STAV, Insight, TSSM)?**

A better question is, how many trial exams do you have time to complete? Each of the above companies produce some good trial exams and they provide a variety of the types of questions you could find on the upcoming examination. In general, Neap and STAV, tend to be the most difficult exams to complete. However, I would recommend you complete a number of papers from different trial companies, as they will give you a better range of questions to practice.



**What is the main factor that results in the GI levels of certain foods? Is it the presence or absence of carbohydrates in the food, or the specific carbohydrate that is in the food (e.g. amylose vs amylopectin ratio)? Thanks.**

The GI is a ranking of carbohydrate foods from 0 to 100 based on how quickly and how much they raise blood sugar levels after being eaten. This is related to how quickly a carbohydrate containing food is broken down into glucose. Low GI foods produce a slower, lower rise in blood sugar levels.

Firstly, GI definition is important (as stated above), secondly the ratio of Amylose and Amylopectin will influence the GI levels of foods. Both the definition of GI, the difference between the two different starches and the ratio of the two different starches in food is important.

## ENGLISH



**How can I get high/ full marks on the exam? What tips can you give, please? What practical tips can you give in preparation for the English exam? What differentiates a B grade for an A+ grade on the exam? Will my introduction determine the way the assessors look at the rest of my piece? Will I be marked down significantly for not finishing my exam? What have your top students done that set them apart from the rest? What can I do to get high on the exam?**

To get full marks or even very high marks in the exam you simply need to address the criteria to a very high degree. You can access the exam criteria with descriptors for all three sections using this link to the VCAA website <https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>. Each section is marked by two different assessors in order to ensure that marking is consistent.

To prepare for the English exam you need to write essays in the three sections and each time you do so make sure that you give it to your teacher to mark. The key to improving your skills and marks is to get feedback from your teacher and act on that feedback so that progress continues. As well, writing in timed conditions is significant at this stage.

The quality of the writing, analysis and focus on the topic differentiates a B grade from an A+. Take time to read excerpts from essays that were awarded high marks in past exams which are published in Past Examination Reports using this link:

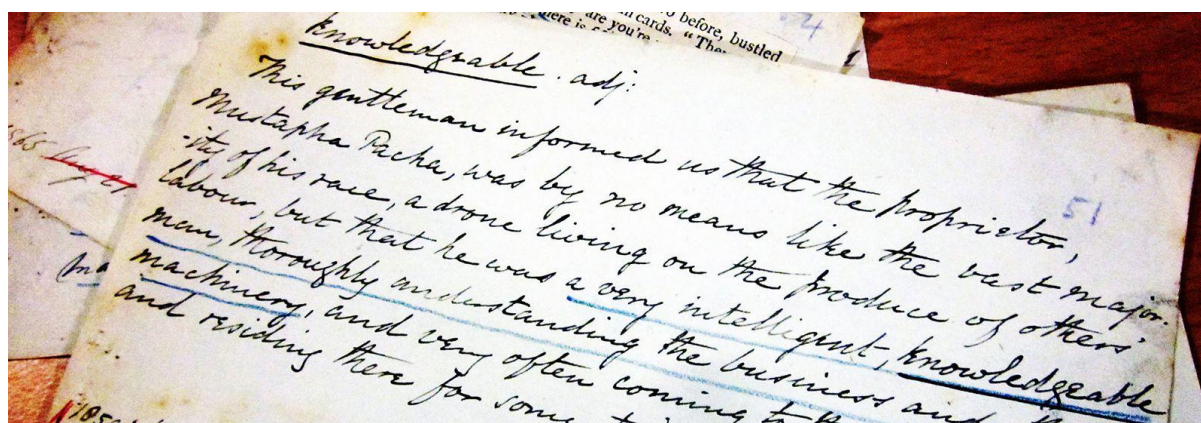
<https://www.vcaa.vic.edu.au/assessment/vce-assessment/past-examinations/Pages/English.aspx> This is a useful exercise even if the excerpt it is not based on your specific text.

Assessors read the whole essay not just the introduction. Be mindful that the introduction does have a significant role to play as you are setting up the framework of your response in terms of addressing the topic.

Assessors use the assessment criteria focusing on the descriptors to award marks so the idea is not to take away marks. Assessors award marks based on what is on the page.

Top students write fluently using language effectively addressing the topic consistently in their analysis. This is often the key that sets their responses apart from others.

To get a high mark on the examination you need to practice writing essays in all the three sections under timed conditions and get feedback from your teacher and focus on acting on that feedback so as to keep making progress.



**In a previous email, it was stated that an average mark in last year's exam paper, was a 5.5/10. How should we structure our essays in order to maximise our mark?**

For text response which is Section A your essay needs an introduction, three or four body paragraphs and a conclusion. For your comparative response in Section B your essay needs an introduction, three or four body paragraphs and a conclusion while you make comparisons between the two texts. The comparison should be sustained throughout the essay rather than have one paragraph on one text. For your response analysing argument and language in Section C your essay should include an introduction and a number of body paragraphs. It is effective to use three body paragraphs, with each one addressing an argument and then analysing it and the language used. Note that you need to include an analysis of the visual and integrate it with your analysis of the language. You do not need a conclusion in Section C.

**How many practice exams do you recommend we complete?**

The point about practice examinations is that it gives you the opportunity to see how you cope with time for writing three responses in three hours and also how you use the reading time. Most schools would have already run at least one practice examination by the first week of October. After this use the feedback and the mark to guide your preparation for the examination. There is no magic number regarding the number of practice exams any student should do. There is also value in writing one essay at a time. Be careful and do not do an examination three or four days prior to the actual examination as it is very exhausting mentally and physically.

**What are some common errors students make for any essay type and what are some tips to achieving an exceptional top-notch essay? How do I get myself to write better essays?**

The most common error is not addressing the topic. To achieve a very high mark you need to make sure that you know the three texts you intend to write on and that you practise writing. Using high quality sample essays written by other students can help guide you but fundamentally it is only writing that will help you. With Section C you need to make sure that you go beyond simply labelling the various persuasive techniques and comment on the way argument, language and the visual work to persuade particular kinds of readers.

**Does it make a difference to your mark which structure you choose to write your essays? e.g. block structure, Integrated structure and bridge structure.**

You seem to be referring to Section B, Reading and Comparing Texts where the task is to compare texts in terms of ideas, issues and themes explored as well as the ways in which authors/film makers convey their ideas. Therefore, an integrated structure lends itself to achieve this.

**How many assessors grade your essay?**

Every essay is graded by two different assessors and if there is a discrepancy it goes to a third marker, etc. This rigour ensures that every section of every student's examination is given due the time and the process is transparent.

**What are the criteria when you mark essays for an exam? Are there separate criteria for each essay type?**

All assessors use the same criteria for the examination. You can access the examination criteria with descriptors for all three sections using given the link to the VCAA website. Each section has its own assessment criteria with specific descriptors.

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

**According to our school language analysis, text response and comparative text response are on the VCCA exams. Is this true?**

Yes, this is true. Note this is an excerpt from the English Study Design, using this link

<https://www.vcaa.vic.edu.au/Documents/vce/english/2016EnglishEALSD.pdf>:

“Reading and creating texts – Assessment will be based on an analytical response to one of two texts selected from the English/EAL Text List published annually by the VCAA for Unit 3 Outcome 1.

Reading and comparing texts Assessment will be based on an analytical response to a pair of selected texts from the English/EAL Text List published by the VCAA for Unit 4 Outcome 1.

Analysing argument Assessment will be based on an analysis of argument and the use of persuasive language in unseen text/s.”

You can also access past examinations as a reference using this link

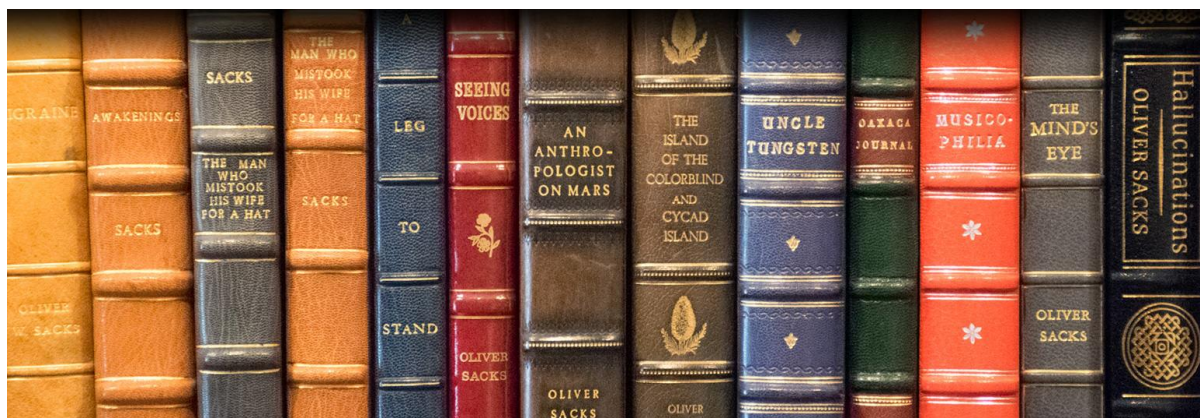
<https://www.vcaa.vic.edu.au/assessment/vce-assessment/past-examinations/Pages/English.aspx>

**I'm really struggling to pass the 70% mark in my sacs and is really trying to change my fate around for the exams! What is it that high achieving essays have in common?**

High achieving essays are written fluently where language is used effectively, and the topic is addressed throughout the essay. Furthermore, quotes are embedded seamlessly. Take time to read excerpts from essays that were awarded high marks in past exams which are published in Past Examination Reports. Use this ink

<https://www.vcaa.vic.edu.au/assessment/vce-assessment/past-examinations/Pages/English.aspx>

This is a useful exercise even if the excerpt it is not based on your specific text.



**What does an assessor look for in a text response?**

An assessor determines whether the response addresses the examination assessment criteria focusing on specific descriptors.

You can access all the descriptors for all three sections using this link to the VCAA website

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

**I am looking for a tutor. Would you suggest an assessor?**

If you want a tutor you should employ one as soon as possible as the examination is a few days away. It is not necessary to employ an assessor as teachers know the course and are preparing students for the examination. However, an assessor has the experience of working with the criteria in a state-wide pool of essays.

**What are the 3 MOST IMPORTANT things the assessors look for in the article analysis section, apart from the effect of the persuasive techniques?**

The three most important things that assessors look for in argument and language analysis is in fact what VCAA present as part of the instruction to the task. This means analysis of argument, analysis of written language and analysis of the visual to persuade.

**What is a common pattern, in terms of analytical skills, among all of the high-scoring essays?**

All the three sections of the examination require analytical skills. The common pattern in high-scoring essays is that they are written fluently using language effectively addressing the demands of each section consistently in their analysis. You can access the exam criteria with descriptors for all three sections using this link to the VCAA website: <https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

**Are there any particular topics and themes that would be worth paying particular attention to for the comparative between 'Ransom' and 'Invictus' as it is in its final year?**

You are referring to guessing the topic/theme and it is not a good idea to do so. You can see the themes/ideas that were the foci of the previous years, but it is not possible to predict the essay topics or themes.

**2018**

i. Compare how the two texts explore the idea that it is essential to know your enemy.

OR

ii. Compare how the social and cultural differences explored in these two texts are overcome.

**2017**

i. 'Revenge is futile. Forgiveness is liberating.' Compare how the two texts examine revenge and forgiveness.

OR

ii. "The opportunity to act for ourselves. To try something that might force events into a different course." (Ransom) Compare the ways the two texts explore opportunities for change.

**How long would you suggest spending on each essay? Is it preferable to do one hour for each or spend more time on the comparative and less on the others?**

All three sections are worth the same number of marks therefore you should spend one hour on each section. During reading time, you should read all the topics/questions on the texts you are focussing on and decide which one you will do in Sections A and B. As well, you should read the material for Section C and use part of the fifteen minutes of reading time to think about the contention and arguments. Although you cannot write you can mentally go through the article thinking about analysis.

**Is it worth preparing responses for themes and topics that have already come up on past exams for text response or comparative analysis? For example, for 'Invictus' and 'Ransom' last year Revenge and Forgiveness appeared so is it still worth preparing a similar response or better to look at ideas and topics that have not been explored yet?**

You are referring to guessing themes and topics and it is not a good idea to do so. You need to prepare on themes and topics covering the widest range but it is not possible to predict the essay topics or themes.

**If I am aiming to get as close to a perfect score for English as possible what must I consider that most students will lose marks on. Although it is important to have quality over quantity about how many pages would you recommend for a top scorer to write in 3 hours?**

The descriptors of the assessment criteria clearly inform you of the features of a high-quality essay in each section. This link will enable you to access them

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

Note that the criteria are framed in ways that award marks rather than listing features which will lead to a loss of marks. It is not possible to identify the number of pages that lead to a top scoring essay as it really is about completing the task in each section and addressing the topics in Sections A and B and furthermore addressing the specific criteria.



**How many bits of evidence would you think is required for a 10 essay in regards to all three sections. Currently, I am utilising 2 moments per BP (2 evidence) for text analysis, alternating between 1 and 2 features per BP for argument analysis (4 BPs) and 1 Moment from each text for comparative. I am a slow writer, thus it would be paramount for me to maximise my efficiency without jeopardising my mark.**

There is no specific number of “bits of evidence” whether they be quotes or references to the texts or literary devices. You do need to provide textual evidence in Sections A and B which are based on texts and you need to use quotes to support your analysis of language and visuals in the material provided in Section C.

**Do we need a conclusion for language analysis?**

No, you do not need a conclusion for language and argument analysis.

**Are words such as demonstrates, depict, portrays, displays etc. not allowed in text response and the comparative part of the exam?**

There is no list of words that are “not allowed” in the examination. Words such as “depict” and “portrays” are useful to refer to what the author, director or playwright does in the text. Words such as “displays” can work in particular contexts.

**If I mess up my sentence structure in the exam, will I be penalised? If I do, then by how much?**

Each section in the examination is marked holistically therefore there is no emphasis on any one aspect of the essay. The descriptors of the assessment criteria clearly inform you of the way marks are awarded in each section. This link will enable you to access them

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

Note that the criteria are framed in ways that award marks rather than listing features which will lead to a loss of marks.

**Is there any way one can have access to a full essay which scored extremely high/received full marks in previous years, other than the sample paragraph chosen in the examiner’s report?**

Currently the Examiner’s Report from the VCAA only publishes sample paragraphs which scored a very-high mark. Another way of accessing a full essay is through your teacher. Teachers sometimes get permission from students who do very well to share their work amongst students within that particular school.

**Do we get penalised for writing a lot? Is it fine if the handwriting gets messier?**

No you will not get penalized for writing a lot. The descriptors of the assessment criteria clearly inform you of the ways in which marks are awarded in each section. This link will enable you to access them <https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>. Note that the criteria are framed in ways that award marks rather than listing features which will lead to a loss of marks. You need to keep in mind that you have 3 hours writing time to write 3 essays. You are writing a 3 hour examination and it has to be read to be assessed but messy handwriting as such is not an issue.

**When writing a body paragraph, should the last sentence link to the next paragraph, the main topic or theme of that particular paragraph? I’ve been given a few different opinions.**

When writing a body paragraph your last sentence can link to the topic sentence idea of the next body paragraph. However, you can also link your last sentence to the topic sentence idea of that particular paragraph. You can structure your essay either way.

**Can you briefly sum up what exactly we are marked on in essays? (rubric).**

Below are excerpts from each of the three sections and you can access the examination assessment criteria with descriptors from the VCAA website. This link will help you access this.

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

**In the answer book, will I lose marks/am I allowed to write each paragraph on a new page?**

You can use as many answer booklets as you like. You can write each paragraph on a new page, just keep your writing within the box on each page. You will not lose marks for writing a paragraph on a new page. Take time to read the examination assessment criteria with descriptors from the VCAA website. This link will help you access this.

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>



**In relation to language analysis part of the English exam, what should a student do/show in order to obtain at least a 6-7/10, and stand out from the rest of the state or to “impress the examiner”**

To obtain a 6-7/10 a student should address the topic, write coherently and meet the demands of the task. Use this link to access the descriptors of the assessment criteria for all three sections

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

**When writing an essay for the English exam, what would be the recommended word limit per paragraph and what section generally takes the most time to complete? Also, when writing a Comparative Essay, it is essential to include a conclusion and if so how many marks does the Conclusion consist of?**

There is no such a thing as a word limit for a paragraph. You need to address the idea of your topic sentence in each of the three sections in your body paragraphs and not think in terms of word limits.

All three sections have equal value therefore you should spend equal time on each. Given that you have 3 hours to write you should use one hour for each section.

Your comparative essay should include a conclusion where you draw all your ideas together. Use this link to access the descriptors of the examination assessment criteria on the VCAA website and you will see that each essay is marked holistically

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

### **What is the best strategy and structure for the three essays?**

The best strategy in the examination is to plan your essays. In the examination you need to plan and write each essay in one hour, therefore use 5 minutes for planning and 5 minutes for proof-reading and editing. In terms of structure each section has different demands. For Section A need to address the topic and analyse the ways in which the writer/director/playwright explores ideas and issues. The best way to do this is to follow an essay structure with an introduction flagging the three or four big ideas you address in your body paragraphs. Each big idea in your introduction should be aligned with a big idea in your topic sentences of your body paragraphs. Your body paragraphs should include embedded quotes and elements in the “construction” of the text and thus references to the literary devices or cinematic devices used. As well, you need to round off each body paragraph linking back to the topic sentence idea showing that you developed it. Another strategy is to also link to the big idea of the next topic sentence in the next body paragraph.

In Section B you need to also address the topic and but this time you need to compare the ideas and issues explored which includes the similarities and differences between the texts. It is best to sustain the comparison rather than have one paragraph on each text. Your introduction should flag the three or four big ideas where you compare the texts that you address in your body paragraphs. Each big idea in your introduction should be aligned with a big idea in your topic sentences of your body paragraphs. This should cover both texts as you are making a comparison. Your body paragraphs should include embedded quotes. As well, you need to round off each body paragraph linking back to the topic sentence idea showing that you developed it while consistently making comparisons. Another strategy is to also link to the big idea of the next topic sentence in the next body paragraph.

The structure of Section C is a little different as you are analysing material that is intended to persuade. Your introduction should include the context for the article, the text type, the headline, author, expertise/vested interest, contention, tone and identify the shift, audience, purpose and type of visual. The topic sentences of each of the body paragraphs should present the argument. From here you analyse the argument and language used to persuade specific kinds of people/groups.



**If you are averaging around 70-80 in your sacs can you get a study score of 40?**

The English examination is worth 50% of your score for the subject. Unit 3 is worth 25% and Unit 4 is worth 25%. Furthermore, there is a ranking at work. So yes, it is possible.

**What is the best way to prepare for the exam?**

To prepare for the English exam you need to write essays in the three sections and each time you do so make sure that you give it to your teacher to mark. The key to improving your skills and marks is to get feedback from your teacher and act on that feedback so that progress continues. As well, writing in timed conditions is significant at this stage. You also need to go through a wide range of essay topics for Sections A and B and group them according to themes and ideas and then try to work out if there are any gaps you need to fill and do some work on these topics. Make sure that you know your text so that you can use effective quotes and literary devices.

**For the exam, which components of the essay would you focus on while correcting it. For e.g., would you stress on sentence structure or like coherence of paragraphs?**

Use this link to access the descriptors of the examination assessment criteria on the VCAA website and you will see that each essay is marked holistically without emphasis on any one aspect of the essay.

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

**For the text analysis and comparative essay, do we include background information. I was advised by my teacher to put it in while my tutor told me not to. I tried taking it out, but my paragraphs were too empty. What would you advise?**

For the text study the task is to “analyse how the features of selected texts create meaning and how they influence interpretation...identifying and analysing explicit and implied ideas and values in texts...” However, for the comparative essay the task is to “explore the meaningful connections between two texts [and to] analyse texts, including the interplay between character and setting, voice and structure, and how ideas, issues and themes are

conveyed.” (VCE English/English as an Additional Language Study Design). Therefore, you are analysing the texts and not focussing on background material or any other material. You can also read excerpts from high-scoring responses on the VCAA website using this link

<https://www.vcaa.vic.edu.au/assessment/vce-assessment/past-examinations/Pages/English.aspx>

**If there is a quote included within the essay topic, are we encouraged to use that quote provided and discuss it?**

Yes, if a quote is part of the topic you should discuss it in your essay. Furthermore, your whole essay should address the idea embedded in the quote.

**I have always been told me to write what I know and not to get too creative with my creative writing. What do the examiners think?**

There is no creative writing in the examination. All three sections require analytical essays and fundamentally you need to address the topic. The descriptors for the assessment criteria will guide you. Use this link to access it on the VCAA website:

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

**What’s something that differentiates a 10 mark response from a 9; is there a greater range of vocabulary, or perhaps an original interpretation of the topic? And roughly how many paragraphs should I be aiming for in an essay? I like to do three, but I had a teacher last year who said top-scoring students do five paragraphs for a text response. Is this true? Thanks!**

The quality of the writing, analysis and focus on the topic differentiates a 10 from a 9. Take time to read excerpts from essays that were awarded high marks in past exams which are published in Past Examination Reports using this link:

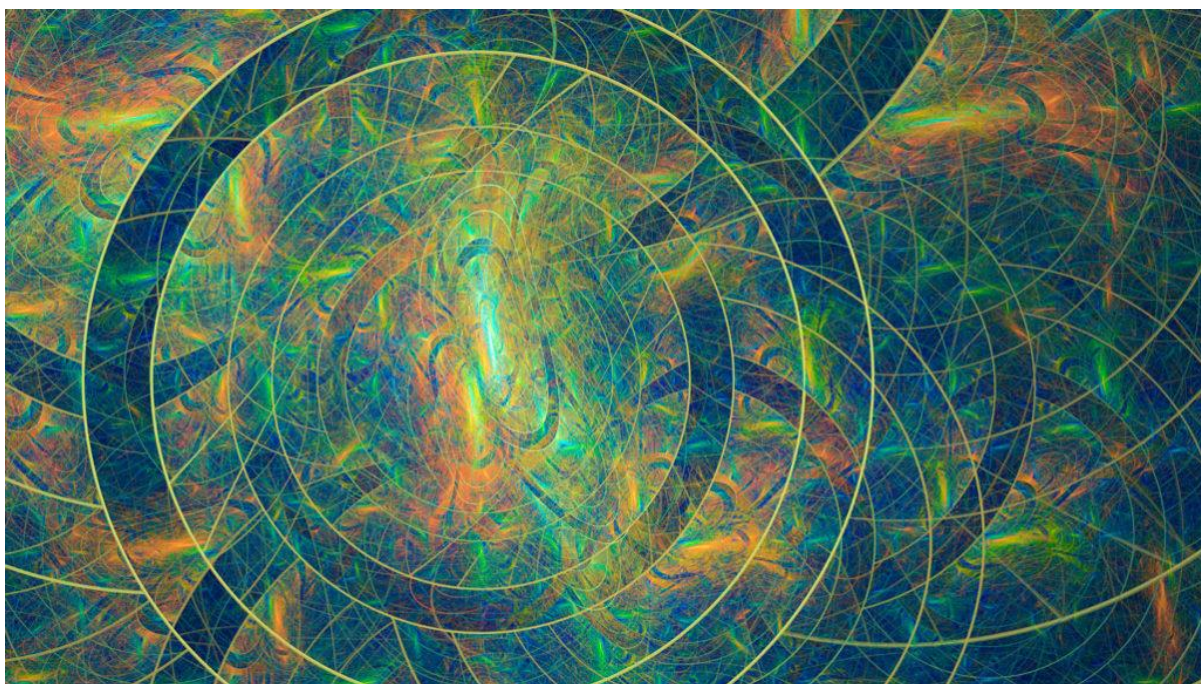
<https://www.vcaa.vic.edu.au/assessment/vce-assessment/past-examinations/Pages/English.aspx>

This is a useful exercise even if the excerpt it is not based on your specific text.

The task is to address the topic and you have only one hour in which to do this. Therefore, writing 3 or 4 body paragraphs is absolutely fine. Writing more does not mean that the marks increase. It is all about the quality of the writing/analysis and the focus on the topic.

**For Women of Troy, how much contextual knowledge are we allowed to bring in? For example, I have a paragraph about Athene’s desire to ‘fill the whole bay of Euboea with floating corpses’ and parallel that with Palamedes home in Euboea that the audience would understand. As Paladames is the second play in the trilogy Women of Troy are a part of is that okay?**

The general rule for VCE text essays is to discuss the text only, in this case only The Women of Troy and not the complete trilogy. However, it is ok to bring in a little bit of context (e.g. the audience knows that the gods ensured Greeks trip home was ‘a complete disaster’, because this was said in the prologue. However, if it’s entire paragraph of info from another text, it might be disregarded. A good example of this is writing about the author’s background, instead of the actual play.



**What makes a 10/10 language analysis essay? What separates those from ‘ok essays’?**

To get full marks or even very high marks for the language and argument analysis essay in the examination you simply need to address the criteria to a very high degree. You can access the exam criteria with descriptors for all three sections using this link to the VCAA website:

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

**To get 10/10 for text response, do you have to analyse structural elements? What are some examples of really good standout structural elements to analyse?**

Below are the expected qualities to be awarded a score between 9 and 10 and note the word “construction” referring to the way the text is put together. Therefore, you need to refer to literary devices or cinematic/film devices.

The structural elements or features of construction you analyse will depend on the form of the text whether it is a novel, a play or a film. There is no one list that covers all texts.

**How long should each piece be in the exam?**

There is no word limit but usually students can write between 800 – 1,000 words for each section.

**How should I assess my own practice essays in preparation for the exam? Should I give it to my teacher, or should I try and mark it myself?**

It is worthwhile giving your teacher your practice essays to mark. The key to improving your skills and marks is to get feedback from your teacher and act on that feedback so that progress is on-going.

**Have you any study tips for Section A- Analytical interpretation of the text?**

At this stage of the year with only a few days before the exam writing practice essays, getting it marked by your teacher and acting on the feedback so that your next one is further improved is the key. You also need to go through a wide range of essay topics and group them according to themes and ideas and then try to work out if there are any gaps you need to fill and do some work on these topics. Make sure that you know your text so that you can use effective quotes and literary devices. If your teacher has given you any high-scoring sample/model essays use these annotating them so as to highlight the structure, quality of the analysis and the way quotes and literary devices are embedded.

**Have you any study tips for Section B- Comparative Analysis of texts?**

At this stage of the year with only a few days before the exam writing practice essays, getting it marked by your teacher and acting on the feedback so that your next one is further improved is the key. You also need to go through a wide range of essay topics and group them according to themes and ideas and then try to work out if there are any gaps you need to fill and do some work on these topics. Make sure that you know your texts so that you can use effective quotes. If your teacher has given you any high-scoring sample/model essays use these annotating them so as to highlight the structure, quality of the analysis and the way quotes are embedded.

**What is the most effective text structure required in attempting the Comparative Analysis of texts?**

In Section B your introduction should flag the three or four big ideas where you compare the texts that you address in your body paragraphs. Each big idea in your introduction should be aligned with a big idea in your topic sentences of your body paragraphs. This should cover both texts as you are making a comparison. Your body paragraphs should include embedded quotes. As well, you need to round off each body paragraph linking back to the topic sentence idea showing that you developed it while consistently making comparisons. Another strategy is to also link to the big idea of the next topic sentence in the next body paragraph. Your conclusion should draw all the ideas together and not refer to anything new.



### **Have you any study tips for Section C- Argument and Persuasive Language?**

To prepare for Section C you simply need to practise so write argument and language analysis under timed conditions. Use any sample/model high-scoring essays that your teacher may have given you annotating them in terms of the way the argument is identified, the way language is used (think about the suggestions made by words) and its impact on the reader (what readers should think/do). Also note the way tone is referred to as just another example of the way language is used and the way the student links the visual and written text.

**How long must an essay be in order to acquire full marks in the written exam? Must it be higher than the suggest word count? As this is what my teacher alludes to in regard to our sacs, in order for us to receive a 'Very High.'**

There is no word count or limit. The key is that students should address the assessment criteria and you can access the descriptors for all three sections of the examination using this link to the VCAA website:

<https://www.vcaa.vic.edu.au/Documents/exams/english/english-crit-descriptors-w.pdf>

## ENGLISH LANGUAGE



**How long should a conclusion be (if even necessary) for essays and AC?**

No conclusion is required for an AC.

The conclusion for an essay should be brief; it should make references to the key ideas/arguments discussed in the body paragraph. You can make some relevant statements about the nature and function of language that is related to the topic and can have a relevant quote to conclude the discussion.

**Are we allowed to use “personal anecdotes” as examples for the essay component of the exam?**

Yes, you can have ‘personal anecdotes’ as examples in the essay but remember NOT to reveal your name or school name. You can use personal pronoun ‘I’ or ‘my’ but restrict it to one example.

**What are some of the best contemporary examples for English language this year? How do they relate to the course? Thanks.**

There are plenty of examples:

- Israel Folau and his tweets – about meeting face needs, or the need to use PC language.
- The debate surrounding the Australian National Anthem and the inclusion of Aboriginal references – individual and group identity; social harmony.
- Changing of Mother’s Day to Harmony Day by a school in Brunswick – inclusive language; PC language; social harmony; meeting face needs.
- The discussion around gender-neutral pronouns – discriminatory language; meeting face needs.
- The remark made by Alan Jones on New Zealand PM – sexist language.
- The revising of language around climate change – language change.



**For an A+ level essay, how many pieces of linguistic evidence should you provide in each body paragraph?**

At least two. Remember, you can include the stimulus material as well.

**For identify questions such as ‘identify the register of the text (1 mark)’ should we answer in full sentences?**

Not required.

**Hi, I was wondering what VCAA assessors are looking for when they read a commentary and essay. What are the important things that I should do to change my result from an A level to an A+? Thanks.**

An A+ essay:

- addresses all aspects of the topic
- develops a complex and persuasive contention
- constructs clear and well-developed arguments
- selects contemporary examples to support the chosen contention and arguments (this can also include stimulus materials)
- creates a unified response to the topic

**Hi, is it fine to have only 2 body paragraphs (but detailed analysis in both) for an English Language essay? Thanks.**

Yes and no. It depends on how well those analysis is constructed. Remember that essays require a formal structure and hence it is recommended that you aim for an introduction, 3 body paragraphs and a conclusion.

**Is there an optimal length for the essay and AC?**

Essays require a formal structure, hence an introduction, followed by at least 3 body paragraphs and a conclusion is expected. Though VCAA does not recommend a word count or page length, it is assumed that to develop a reasonable response to an essay topic (and one that fulfils the required structure) with analysis of evidence one will expect at least two to two-and-a-half page of writing.

**Hi, for English Language essays, should there be a balance of contemporary examples and examples from linguists or linguistic research? Which of the above is more important? Thanks.**

Yes, there should be good balance between contemporary examples and examples from linguists or linguistic research, but relevant contemporary examples are more important.

**For ACs, is there a preference for the method or approach used e.g. paragraphs in terms of subsystems or paragraphs based on register, purpose, etc.?**

There is no preferred method or approach, but it is expected that students adhere to the instructions provided in the Section B of the exam. The instruction on the exam reads are as follows:

In your response, you should comment on the:

- contextual factors affecting/surrounding the text
- social purpose and register of the text
- stylistic and discourse features of the text.

Refer to at least two subsystems in your analysis.

It is better to avoid structuring your paragraphs based on subsystems. It is preferred that the body paragraphs are structured around social purpose, context and register. Within those paragraphs remember to analyse stylistic features (phonological, morphological, lexical, syntactical or semantical features) and discourse features (for written texts, information flow, coherence and cohesion and for spoken texts features/strategies like prosodic features, turn-taking strategies or topic management strategies etc). **NOTE:** By including the stylistic or discourse features you are also referring to the subsystems.



**Hi, to what standard are the commentaries and essays in the VCAA assessor's report? They are "high scoring responses", but does this mean an A level (24-26/30) or an A+ level (27-30/30)? Could you please use one of the assessor's reports as an example?**

It is hard to say. They can either be from the 'A' range or 'A+' range. High scoring response are chosen to provide a sample that most if not all students can emulate. For example, if you look at sample provided in the assessment report for Q9 of 2018 VCAA.

### **Introduction:**

Language encapsulates the values and beliefs of a society, making it so interconnected and influential on each other (*a valid and relevant statement about language and the topic*). Dominant groups may often shape language with their overarching values, which is occasionally seen through language used towards different cultures and ethnicities (*contention and argument*). Language can also reflect the gender biases of society especially directed at women (*argument*). However, political correctness suggests that minority groups can also influence rigid social values of the majority (*rebuttal argument*).

The attitudes towards various ethnicities and cultures in Australia suggests gradual progression in embracing multiculturalism (*topic sentence, which is quite broad yet focussed on an argument*). As a nation priding itself on cultural diversity and also proudly embracing this, Australia sees many ethnolectal varieties being used on a daily basis such as 'Chinglish' which is a mixture of Chinese and English (*narrows the focus and explains the idea expressed in the topic sentence*) with a specific ethnic variety. However, these values are not always upheld as seen when a Sydney suburb mandated English signage on shop signs earlier in May, 2018. In necessitating this, it reflects 'multicultural tolerance, not active multiculturalism' (The Conversation), which suggests that dominant groups speaking English in Australia prefer its widespread use in society in contrast to other ethnic languages (*Discussion of an example*). Similarly, in August this year, ABC radio presenter Sami Shah stated that he had to attend vocal classes prior to starting his radio host job to 'flatten out [his] Pakistani accent' and take out some of the 'brown'. Despite speaking standard Australian English, the controversy behind Shah's accent which is different from the traditional general Australian accent, suggests that there is generally more support for the accent spoken by majority of Australians and perhaps less so for migrants (*Discussion of another example*). This is mirrored in Stimulus B which states that studies show 'English speakers who are identified with an ethnic minority group are subjected to a higher degree of negative evaluation', which postulates that there are still varying attitudes towards the language used by individuals of minor ethnic groups as Australian English remains more prevalent and accepted (*a good conclusion to this paragraph by linking it back to the topic*).

## FURTHER MATHEMATICS

**If a short answer is worth one mark, is it necessary to include our working out? There have been times where a question is worth 1 mark, but requires a lot of working out, and I am unsure on what I am asked to do.**

Good question. For a 1-mark answer there is no method mark (working out mark) allocated, so it is easy to assume that you do not need to show your working. HOWEVER, it is really important that you still show working out for three main reasons: 1) if you got part a) of a question wrong and used that in parts b) c) and d) you would lose 4 marks if you did not show working (if all worth one mark). But if you show working and show that you used your incorrect answer from part a) to answer b, c and d, you can still get full marks for b, c and d as long as your answers are still plausible. 2) There is usually a maximum number of rounding marks that you can lose in a paper. If you show the unrounded answer, and then round it incorrectly, you may still be eligible for full marks. 3) It makes it easier for you to check your work if you show working.

**For the four modules do we have to do the modules our school teach us, or we can choose?**

When you go into an exam YOU are the one who nominates which modules you are going to do. This means that you can do different ones to the ones chosen and taught by your school. However, from my personal teaching experience, I would highly advise against this. I do not know of a time when this has worked in the student's favour. It can seem like other modules are easier, but they all have their various challenges and it is generally better to work with topics you have been practising all year, rather than one that appears easy to the untrained eye.

**Is it possible to do different modules in exam 1 and different ones in exam 2?**

The exams are marked separately, so it is not a problem from that perspective. However, I would highly advise against this – it would mean a) that you need to study for three modules rather than two, and b) that you would be attempting a module not covered in your classes, and while you may think another module looks easier, they all have their challenges.



**On paper two, when some questions ask you to convert time to seconds and when you convert it, let's say the final answer gives up 37.32, and the questions asks to the nearest second, would you round this to 38 seconds as the decimal is above 30 seconds or would you round it down to 37 seconds?**

Decimals in time work exactly the same way as decimals in other numbers – that is it would round down to 37 seconds unless the decimal was 0.5 or above. I understand where your question comes from but would only be applicable if time was written in degrees, minutes and seconds, rather than decimal time. VCAA will always use decimal time.

**In Exam 2, When we are writing our answers to finding a variable, do we have to write the variable = or just the answer?**

I always advise to write the variable as it encourages you to think about whether you have answered the question being asked, however in terms of marking, it makes no difference. If you have the answer written down that is all that matters.

**If I decide to complete Matrices, Networks and also Graphs and functions how does the marking work?**

VCAA will mark all three modules and use the marks from your highest two. However I would very strongly advise against this as a) you have to study for more than two modules, so may not be getting the breadth of understanding and practice to excel in any of them and b) in the exam you would very likely run out of time if you attempt to answer more than 2 modules.

**In relation to Exam 2, when you have to show your working, do you put in the whole solve equation onto the page straight from the CAS, or just write down the working without it. My tutor tells me to not write down the solve part with the brackets, but my teacher tells me too, so I'm confused.**

VCAA would generally accept either. Most of the time, questions that require working, just require a calculation to be shown that gets you to the final answer, so either would be acceptable. In 'show that' questions however it would not be appropriate to write solve and the brackets, as you must work towards the answer, no use it as part of the question.

**How can I make my bound reference the best?**

Excellent summaries are key. Summarise each chapter and leave space to attach examples. As you work through practice exams and past papers, for any questions that are particularly challenging, write out a solution showing each step (with annotations if needed) and include these in your bound reference. You should be taking in about 50 pages maximum (although many students take in many more). You need to be able to find all sections quickly and easily, so use your bound reference through all practice question so that you become very familiar with where everything is. Of course, use tabs, indentations, colour coding and any other trick that will allow you to find info easily. Number pages and have a contents page listing each concept covered and the page number.

## **What is the best way and most effective way to get a high score in further math?**

The best and most effective way is two-fold.

1. You need to practice! Question after question after question. Do every past paper and any practice papers you can get your hands on. Every time you don't know how to answer a question, or why your answer is wrong, ask your teacher. If you do this, when you get into your exam you will be familiar with about 80% of the questions asked!
2. Your bound reference should summarise each chapter and leave space to attach examples. As you work through practice exams and past papers, for any questions that are particularly challenging, write out a solution showing each step (with annotations if needed) and include these in your bound reference. You should be taking in about 50 pages maximum (although many students take in many more), and better still if you only have to refer to it a handful of times in any one paper.

## **Do we need to know what savings and term deposits are for the finance part of further maths?**

Those terms are not specific to the Further Maths course. The terminology used is loans, investments, simple interest, compound interest, reducing balance loans, interest-only loans, annuities, perpetuities, annuity investments, and then the three forms of depreciation. If VCAA use an unfamiliar term, they will tell you exactly what it means.

## **Should working out be shown for 1-mark questions on exam 2?**

Good question. For a 1 mark answer there is no method mark (working out mark) allocated, so it is easy to assume that you do not need to show your working. HOWEVER, it is really important that you still show working out for three main reasons: 1) if you got part a) of a question wrong and used that in parts b) c) and d) you would lose 4 marks if you did not show working (if all worth one mark). But if you show working and show that you used your incorrect answer from part a) to answer b, c and d, you can still get full marks for b, c and d as long as your answers are still plausible. 2) There is usually a maximum number of rounding marks that you can lose in a paper. If you show the unrounded answer, and then round it incorrectly, you may still be eligible for full marks. 3) It makes it easier for you to check your work if you show working.

## **If we get an answer correct but the working out is wrong will we still get full marks if it's a 2- or 3-mark question?**

There are very few questions worth multiple marks in VCAA exams. If there is a method mark (working out mark) and the working out is wrong, then you would not get the method mark for that question, but you would still get the answer mark.

## LITERATURE



**How can I achieve high marks in the exam? What practical tips can you give in preparation for the exam? I am really struggling with close analysis. any tips?**

For Section A, learn a significant number of short and useful quotes. Evidence is really important, as is your ability to demonstrate direct knowledge of the text. The best way to prepare is to do some Literature every day between now and the exam, even if it means on some occasions, just spending five or ten minutes on quotes. Re-reading your text is also very important, and if you haven't written many practice essays, you should really make an effort now to do so. This will mean that there is much more material in your head which you will be able to assemble in the exam to meet the demands of the prompt. It's also important to look at and unpack as many different prompts as you can at this stage, and to test them to see if you can use your chosen perspective with them. For Section B, once again it is practice at writing that you most need to do at present. More specifically, use this checklist to make sure that you are creating the right "recipe" in this section.

**What kind of essays are awarded the highest marks? What is it that examiners are specifically looking for in a closed-passage analysis? E.g is it the originality of the interpretation, or is it eloquence? Are essays with a non-stereotypical structure awarded higher marks? Or is it a clever development of ideas?**

There are two main things that are most important in Literature responses: sophisticated language and complex ideas. Make sure that you have the mechanics of language under control: spelling, grammar and punctuation. Your response needs to read very well as a piece of scholarly/literary writing in its own right – so, eloquence and articulateness are very important. In close analysis, you are writing a discussion which has a much freer "structure" than the expository essay you will write for Section A. In Section B, your ideas need to evolve, develop and connect in a logical and cohesive way, so that the further we go in reading your work, the more we are able to appreciate the depth of your analysis and insight. If you know your text well, you will also know what it is best to take from the three passages and use as your interpretation. This is where originality and your own voice come into play.

Technically, you don't need an introduction or conclusion for Section B because you are not arguing anything. You can write them if you want, but it is the quality of the actual analysis and your ability to see how language creates meaning which count. Some students, especially the stronger and more confident ones, just dive straight into a passage and begin analysing right from the first sentences. This means that, if the analysis is impressive, they are earning marks straight away.

**What are the usual signs of a pre-prepared introductions for both section A and B? Also, how badly do examiners tend to penalise based on it?**

The introduction for Section A can follow a formula and this should show straight away that you have understood the prompt and its implications and subtleties, and that you have a definite response to it which will be logical and well-structured. Introductions are important in Section A as a sort of roadmap to where you are heading, and as the first writing from you that the assessor encounters, but it's really in your body paragraphs that you earn the most marks. Assessors never penalise students: they are instructed to reward, so if you are meeting the criteria, you will be rewarded accordingly, depending on the extent to which you do so. Technically, you don't need an introduction or conclusion for Section A because you are not arguing anything. You can write them if you want, but it is the quality of the actual analysis and your ability to see how language creates meaning which count. Some students, especially the stronger and more confident ones, just dive straight into a passage and begin analysing right from the first sentences. This means that, if the analysis is impressive, they are earning marks straight away.

**How important is it that we include quotes from outside the passages in section B essay?**

It is important for you to show some knowledge of your text in Section B beyond the selected passages on the exam, but you need to do this only once or twice in the course of your response as it's not the main thing. You could use a quote or two in order to achieve this, or you might make a statement such as the following: In the scene which precedes this encounter and leads up to it, the two protagonists appear to ..."; This tendency towards violence which is described in passage 1 becomes evident again towards the end of the play when...". These are ways of showing that you have knowledge beyond the passages in front of you. By the way, quotes are very important in Section A!



**What is the minimum word count for each essay? Also, how much should we aim to write (ideally)?**

VCAA makes no specific requirement of the word count in your responses. However, if you think of the need for detail and sophistication in a top response, it clearly can't be 500 words long which is barely two pages. In my experience, the highest scoring essays which are intelligently and skilfully written, are generally in the vicinity of 1,000 words or exceed it. Some students can write over 1400 words in an hour, but this they are few in number. Aim at least for 900-1,000. This means that you need to be very well-prepared so as not to spend too much time creating material in the exam – it should rather be a case of assembling it from all of the information you already have in your head.

**If there is a short phrase (two or three words long) to add into an essay we've already completed, would you prefer for us to insert it in using a little cap (eg. ^) or would you encourage us to write it on another page and link it in using reference numbers? Also please let me know how you would prefer for us to insert a sentence into the same situation?**

Always aim for clarity whenever you need to insert or cross-out. Assessors will try to read insertions in whatever form they appear, so choose the neatest way and they will cope with it more easily. You can't be penalised for doing this, by the way.

**I've been told by my Lit teacher that my essays are good, but that sometimes my conclusions can sound a little English essay-esque; is this something that I would lose marks for in an exam, or is the main focus on the essay itself? Also, for critical perspectives, is it worth using a perspective that not many people will use? I want to use a postcolonial lens for Heart of Darkness because that's what I'm good at, but I'm**

**afraid that I'll score lower because more people will do it, therefore there will be more good essays in the mix, making mine seem worse. Or would it not have an effect on my mark?**

In Section A, which is an expository structure, it doesn't matter if your conclusion sounds a little formal. You can't lose marks for this. Conclusions are generally regarded as the least important part of your Section A response, although should still try to make them round off your response in an intelligent and controlled way. In Section B, you don't need a conclusion. You can just finish where you finish. You are not arguing a case, so you don't have to draw together the threads of your argument. The main thing with your perspective in Section A is that you use it well to meet VCAA's criteria. Many students will use a postcolonial lens for *Heart of Darkness*, which is very appropriate, but not all of them will use it well. A perspective is not better because it's rarer than the mainstream approach – it's better because of the successful way in which it is used to meet the criteria and enable the essay to work.

**For passage analysis, how crucial is the links/comparison between the passages? Approximately how much per paragraph should be devoted to comparison? Is it necessary at all?**

In Section B, it is very important to work across the passages and to use the language and concepts in them to create a strong synthesis of ideas. This means that you should be frequently making links and comparisons and that this will constitute most of your response. Students should avoid writing three or four mini-essays that are disconnected from each other; or approaching each passage as a separate extract analysis. What you need to create is a fluent discussion in which ideas evolve, connect and develop, and this should be done in a sophisticated way.

**How do I structure Literary Perspectives to get high marks?**

Although VCAA has no specific rules for this, your Literary Perspectives essay in Section A is best written with an expository structure: introduction, three body paragraphs, and a conclusion. The introduction for Section A can follow a formula and this should show straight away that you have understood the prompt and its implications and subtleties, and that you have a definite response to it which will be logical and well-structured. Introductions are important in Section A as a sort of roadmap to where you are heading, and as the first writing from you that the assessor encounters, but it's really in your body paragraphs that you earn the most marks. Each body paragraph should be based on a topic sentence which is directly related to the prompt. You may know the TEEL structure already, and this is quite useful for a Section A essay. Make sure you deal with views and values in every paragraph, and that you include construction elements such as the writer's language. The special extra item for Literature is your perspective which should be made clear in your introduction and then be used for analysis in all of your body paragraphs. Make sure you use a number of quotes throughout your response and that you link your paragraphs logically. Conclusions are generally regarded as the least important part of your Section A response, but you should still try to make them round off your response in an intelligent and controlled way.

## MATHEMATICAL METHODS

**What is the importance of understanding Methods concepts rather than just doing the exercises?**

The benefit of understanding concepts is that you are more likely to be able to adapt to unfamiliar exam questions such as those found in Exam 2 as well as the latter parts of Exam 1. The deeper your understanding the easier it is to see links with questions in different formats. Of course, you need to practise this through doing exercises or practice examination papers.

**How do I get full marks?**

Good question! Apart from the obvious answer of getting everything correct you also need to have excellent “examination technique” such as being aware of the time; having a plan for the order of questions done; re-reading questions to make sure entire question is answered; having a set of notes where you can find what you are looking for quickly and being outstanding at using your CAS calculator.

**How dependent are the exams on the CAS?**

Past experience shows that there will be questions you can only do on CAS on the examination, and that proficient use is a massive advantage. CAS skills play an important role in you working more efficiently and hence increasing your chance of completing the examination in the two hours allotted. If you are a confident user, then lots of marks in Exam 2 can be found correctly and quickly.

**Is calculator syntax accepted for certain things such as  $\text{binomCdf}(10, 0.5, 1, 10)$  for the method mark? Or is the method mark awarded for just defining ie  $X \sim \text{Bi}(10, 0.5)$ ? For example, 2016 Exam 2 Q3a.**

CAS syntax is not acceptable: you must either use mathematical notation or set up the question in a way that shows your understanding. As you suggest, in 2016 Ex 2 Q3a your setting out would be:

$X \sim \text{Bi}(22, 0.1)$  (or Binomial:  $n = 22, p = 0.1$ )

$\Pr(X \geq 1) = 0.9015$

**Do you have to state that  $dy/dx=0$  before finding the derivative and equating it to zero (again) when solving for max/min?**

No: just write  $f'(x) = \dots = 0$  and solve from there

**For the bound reference, can I staple the worksheets to the back of my notebook? – Can I use pencil only in the exam? – Will I be given any spare paper if I ask for it?**

You can staple in worksheets so long as they do not protrude beyond the edge of your book.

Pencil is allowable but it is often harder to read, and we can only mark what we can read. It also is tempting to erase workings – so be careful.

If you raise your hand and ask in the exam the supervisor will bring you working sheets. Just be aware anything you want marked should be in the exam booklet.



**This question is from a NEAP 2016 exam 2. The population parameter  $p=0.2$ . I'm not at all sure how the 200 samples are relevant when the sample size  $n$  is 100. Their solutions use  $n=200$  to find the SD in part iii. This makes me think they are seeing 200  $p$  hat values as a sample of size 200 and finding the mean and SD of those 200 numbers??? please help!**

When we have 200  $p$  hat values (each taken from a sample of 100 people) then if you graphed those 200  $p$  hat values you would get a pretty good normal curve – hence we can use a normal approximation when looking at the probability of  $p$  hat values lying in a particular range.

The normal approx. uses the population parameter as the mean and the  $n$  value is the number of sample  $p$  hat values you have – here, 200.

**Xavier takes a further 200 samples of 100 children, calculating the sample proportion and 95% confidence intervals for each.**

**i. How many of these confidence intervals could Xavier expect to contain the population proportion of children with tooth decay? 1 mark**

95% of those 200 ie 190

**ii. Give the appropriate type of distribution that you would expect would be a good approximation for these sample proportions. 1 mark**

Since  $np$  and  $np(1-p)$  are both more than 5 or 10 we can use the normal approx?

**iii. What would the parameters (mean and standard deviation) of this distribution be, correct to two decimal places? 1 mark**

Mean =  $p = 0.20$  and  $sd = \sqrt{.2 \cdot .8 / 200} = 0.03$

**In questions relating to “for what domain is the function strictly increasing/decreasing,” are we to include/not include end points and or turning points?**

VCAA includes endpoints and turning points when looking at strictly increasing or decreasing.

**For an event occurring with a probability, am I just allowed to write  $Pr=0.5$  or do I need to write  $Pr(\text{event occurring})=0.5$  every time?**

You should always write  $Pr(X>2) = 0.5$  (for example).

**When working on a Bound Reference, what would be the best stuff to add to the Bound Reference and how long should the Bound Reference be?**

Only you know what you need in the bound reference, but the main things I would include are:

- an index at the front (with page numbers throughout) so you can find your section easily.
- a section (say on the back couple of pages) on the things you most commonly mix up or have difficulty with.
- some worked examples from text or practice examination.

**Do you give consequential marks? If so, does it depend on how badly we stuffed up on the previous question?**

In certain questions examiners will award marks when an incorrect result from a previously step is correctly used in a subsequent step.

Within reason it usually does not matter how far from the correct answer it is, but an obviously wrong number would not be rewarded – for example if in part (a) you found the probability to be 1.4 you could not use that in part (b).

**When giving the domain for x values when the function is dealing with real life situations (where  $f(x)>0$ , do we include the values of x where  $f(x)=0$ ?**

Great question, but it depends on the particular question. For example, if it was “for what times was the vehicle stationary” when it started after 4 seconds, then you would use  $[0, 4]$ .

If the question was about when the vehicle was in motion, then you would use  $(4, \dots)$

Mostly in VCAA exams they are pretty clear about what they want.

**In exam 1, what should I do if I spent a long time on a question but still haven't reached the answer? Should I abandon it or continue it since I've already worked so long on it?**

Yes! If you have hit a road block definitely move on and come back to it if you have time.

You are better to get on to other questions you can gain marks for, and also when you come back to a question after a break sometimes you can see what you could not earlier.



**What questions should I do first in exam 2? Is the approach: 80 minutes for section b and 40 minutes for multiple choice a good approach? Also, in section B, should I start from the last questions and then do the first questions?**

In terms of marks per minute, Exam 2 is 80 marks in 120 minutes so 1.5 min per mark. This neatly works out to 30 min for m/c and 90 minutes for extended response. However, if you find the 40/80 split better for you, that is fine. The main thing is to keep an eye on the clock – if you do M/C first, get engrossed and look up after 60 minutes you will not get the extended response done.

The usual approach is to do the easiest questions/ones you are most confident of first.

If you mean first and last within an extended response question, I would definitely start at part a then work through it. The earlier parts are easier to get marks, and you generally need some of parts a-d to do latter parts of the question.

**Conditional probability, how much working out is required to gain full marks eg. find  $\text{pr}(x < 6 \mid x > 3)$  [2 marks] =  $\text{pr}(x < 6 \text{ and } x > 3) / \text{pr}(x > 3)$  – is this required? (stating the and) or can we go directly to the next line =  $\text{pr}(33) = \text{pr}4$  or equal to 4)**

For a two-mark question, examiners are usually looking for a meaningful step of working for one mark, and the correct answer for the other.

So, for conditional probability show the intersection divided by the condition, then the answer

e.g. say we have Binomial;  $n = 8$  and  $p = 0.5$  find  $\text{Pr}(2 < x < 6 \mid x > 3)$

$\text{Pr}(2 < x < 6 \mid x > 3) = \text{Pr}(x = 4, 5) / \text{Pr}(x > 3) = 0.773$

**Sample proportion, how much working out is required to gain full marks eg. the manufacturer decides to take samples of 100 model Y phones from a number of different retail outlets that it has supplied. let  $P^{\wedge}$  be the random variable of the distribution of sample proportions of model Y phones with a charge time greater than one hour for these samples of 100 model Y phones. it is known that 10% of the model Y phones that the manufacturer has in its stockpile have a charge time greater than 1 hour. find  $\text{pr}(P^{\wedge} > 0.05 | P^{\wedge} < 0.15)$ . give your answers correct to four decimal places. do not use normal approximation. [3 marks]**

From this large population we can use the binomial distribution to solve this question.

It correlates to  $X \sim \text{Bi}(100, 0.1)$

Hence  $\text{Pr}(p^{\wedge} > .05 | p^{\wedge} < .15) = \text{Pr}(X > 5 | X < 15)$

$= \text{Pr}(5 < X < 15) / \text{Pr}(X < 15)$

$= 0.9379$  (Make sure you don't include 15 etc in your binomcdf calculations)

**Differentiation and anti-differentiation, what is the appropriate working out eg. let  $y = x \cdot \cos(x)$  a) find  $dy/dx$  [2 marks] b) hence, evaluate integral of  $2x \cdot \sin(x)$  dx from  $\pi/6$  to 0 [2 marks] for b in particular, what are the answer marks typically allowed as my method is not the same as the ones usually given but I reach the same answer also, when finding the derivative in a two mark question, can I go straight to the answer or do I have to show that I have applied the chain/product/ quotient rule and when showing my application of these rules, is it okay to just say  $dy/dx$  of  $\cos(2x) \cdot 5x = 5\cos(2x) - 10x\sin(x)$  or do I need to show  $= 5 \cdot \cos(2x) + (-2\sin(x))(5x)$**

In terms of two marks for a diff: yes I would make sure of it and show the extra step as you have above i.e.  $dy/dx = 5 \cdot \cos(2x) + (-2\sin(x))(5x) = 5\cos(2x) - 10x\sin(x)$

So same above with  $x\cos(x)$ .

There is no one correct method for Integration by Recognition so as long as you clearly set out what you are doing you will get the marks. If you have done this legible working and you end up with the right answer you will be fine.

## PDHPE



**How are the higher order questions marked? (6,8,10 markers) How can I aim for a top-level response? Also, is it worth knowing exact times/figures for energy systems or a range will do for full marks?**

### **Higher order questions:**

Questions that are worth more than 3 marks – including the 6 and 8 mark extended response questions (there won't be higher than an 8-mark question on the exam) are marked in an 'holistic' manner. This means that examiners will look at the overall quality of a response in its entirety when settling on a final mark. There will be a set of 'criteria' for that question (e.g. specific content/terms as per the question, inclusion of data where appropriate and correct use of the stem word (i.e. critique/evaluate etc) that students must complete to give themselves the best chance of getting full marks. Then examiners will basically decide if the answer falls into the 'high', medium, low category based on ability to address criteria. So best advice, aim for what you can do to achieve a 7 or an 8 (high level) on an 8-mark question, rather than an 8.

### **Energy Systems:**

Examiners wish for students to utilise the specific data provided in interplay questions – not quoting textbook figures (i.e. 10 seconds for ATP-CP). The reason for this is exactly the motivation for this question; different textbooks state different figures. So best advice, only have a range of figures in the back of your head (more so from understanding which system produces energy the fastest and why) NOT to quote it in an interplay question.

## **Does HIIT result in anaerobic chronic adaptations?**

See the VCAA bulletin on HIIT

<https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Index.aspx>

This states explicitly what adaptations HIIT is thought to produce and what will be accepted by VCAA.

### **In short answer questions, are we allowed to say ‘Q’, instead of losing more time by writing ‘Cardiac output’?**

Yes, you can – Q is a scientific abbreviation (i.e not a made up abbreviation). Any scientific abbreviations such as Q, V, SV, HR, VO<sub>2</sub> can all be used without writing out the term.

For others, if in doubt, write it out and use brackets to denote the abbreviation. A good example of this is the moment of inertia – this can’t be shortened to MOI without placing this in brackets after writing it out (i.e. “moment of inertia (MOI)”).

## PHYSICS

**What is the go in regard to rounding to significant figures in an exam? Do answers have to be to correct significant figures? Do you get penalised for significant figures?**

There is no penalty for significant figures, but there are guidelines to make answers look better.

E.g. Find the acceleration when a force of 23.0 N acts on a mass of 8.1 Kg.

Apply  $F = ma$

$$a = F/m = 23.0/8.1 = 2.8 \text{ ms}^{-2}$$

This is the correct answer, as the least accurate information had 2 significant figures. The answer 2.84 is also OK as it only adds one figure. If you include 2.839506173 it is very unlikely that marks are deducted, but this wastes time writing all the figures and makes the student look incompetent. If you shorten the correct answer of 2.8 to 3 you will almost certainly lose marks.

**Can a line of best fit be extrapolated past data points?**

Yes, within reason. If it is a Photoelectric graph the question may require extrapolating to intersect the  $E_{K_{\max}}$  (vertical) axis. This enables the work function to be estimated/read from the intercept.

**If we get an answer correct but the working out is wrong for a calculation question, will we still get full marks if it's a 2 or 3 mark question??**

The instructions have changed over the last 5 years. You no longer get full marks for the correct numerical answer.

This is from the instructions in Section B last year:

'In questions where more than one mark is available, appropriate working must be shown.'

The 'must' means that without correct working to match the answer then full marks cannot be awarded. In many questions it actually means zero marks, even with the correct answer.

**While doing projectile motion questions do I have to use 'uvats' or can I use Specialist Maths techniques such as  $r(t)$ ?**

It is perfectly fine to use techniques learned in Specialist Maths. The same guidelines apply, no matter which way you approach the question. Ensure that the working is clear and add some explanatory words to clarify what you are doing.

**How do I go about answering questions that relate to Heisenberg's uncertainty principle or the single slit diffraction experiment that supports his theory?**

The questions so far on this topic, from the exams, have been very confusing. There seems to be some misunderstanding about the coordinates of uncertainty. The first video below goes a little beyond the course but is very clear about directions and how it works.

<https://www.youtube.com/watch?v=iK2Fm4XmmZs>

The second video is simpler and gives a nice practical demonstration of single slit diffraction.

<https://www.youtube.com/watch?v=a8FTr2qMutA>

The important thing to remember is that: only becomes relevant for very small masses. The uncertainty in position and the uncertainty in momentum are in the same direction. This is very clear from the videos.

**How do you allocate your working out for 3 marks? Do you need to include how you derived the formula, and then substitution of numbers?**

There is no need to include derivation of formulas. There may be marks allocated for the derivation, but provided that your derived formula is correct the marks are still awarded.

E.g. Gravitation.

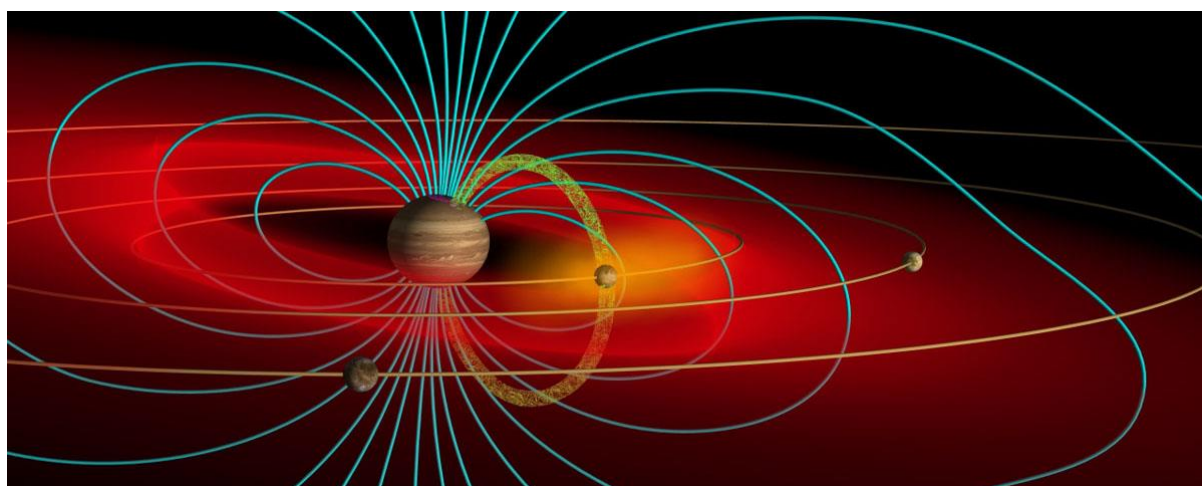
$$GMm/R^2 = m4\pi^2R/T^2$$

Which then gives

$$T = (4\pi^2R^3/GM)^{1/2}$$

The ability to derive the required versions is expected. Having the whole set accurately on your sheet saves a lot of time. You still get the marks for getting the correct version from your sheet.

Always include the step with the correct numbers in the correct places, followed by the answer.



**When writing a formula sheet for the exam, what would be your recommendation to what should be included and what not should be included?**

There are 2 parts to this answer. Each student will have different needs for the sheet. These are some ideas. (This is not meant to be the ideal list.)

**Part 1:**

Work through at least one recent exam and then include everything you needed to check. You should end up with room for examples. The examples should come from the patterns starting to emerge from the 4 exams on the current course. e.g. Have some theory answers ready for the Photoelectric Effect. The danger is in not being adaptable to the specific question. It is obvious when a prepared answer is copied but does not quite match the question. You need to be able to explain the ways that each model supports and also fails for the Photoelectric Effect. Perfect rehearsed answers will help refine your understanding of the more difficult theory. Have some answers ready about Atomic Energy levels and their relationship with standing De Broglie wavelengths.

**Part 2:**

Include everything that is difficult to remember or derive under the stress of exams.

**Area 1 Fields:**

- Include all versions of the formulas that have been rearranged. Include graphs of field Vs distance and force vs distance.
- Make sure you know how to get the energy from each graph.
- Motors – be able to explain how and why a motor works.

**Area 2: Use of fields**

- Generators – be able to explain that all generators are AC and that the only change to get DC is the connections.
- Have the reasoning steps for Lenz's Law with only talking about flux change not fields.
- Transformers – When describing reduction of power losses always mention constant power.
- Have an example of a distribution system so you can work forwards or backwards.

### **Area 3: Motion**

- Have examples of pulleys, towing etc. They are all based on  $F = ma$ .
- Examples of circular motion, both horizontal and vertical. Banked tracks example.
- Projectiles examples. Conservation of momentum and inelastic collision examples.
- Relativity – make sure you understand the perspective and include it in the answer. Question 11c from 2017. If you did not include your perspective, there were zero marks.
- Have a worked example of vertical spring energies.

### **Area 4: Waves**

- Slow and fast spring interactions – have a diagram.
- Standing wave diagrams.
- Refraction examples plus dispersion.
- Interference diagrams from multiple perspectives. Be able to calculate and explain path differences.
- Electromagnetic spectrum.

### **Area 5: Wave-particle duality**

Must be able to understand this area of study – these can be the high-end questions.

- Electron Volt conversions.
- Photoelectric effect – must be able to explain. Include diagrams and calculations.
- Examples of questions that talk about particle diffraction or interference.
- Absorption and emission spectra.
- Atomic energy levels and their connection to De Broglie wavelengths of electrons.
- Heisenberg's uncertainty – probably only have to explain the effect of reducing gap size for a particle stream.

### **Graphs:**

Scales must be even and suitable for the sheet provided. Practice uncertainty bars.

### **Extended practical investigation:**

Variables, accuracy, precision, systematic and random errors.

## PSYCHOLOGY



**The study design mentions the “role of cortisol” do we have to know in detail the HPA axis?**

Teachers, including myself, often teach about the HPA axis as it contains an explanation of how the process of releasing stress hormones takes place. However, the HPA axis is not mentioned on the study design and therefore should not be specifically asked about on the VCAA exam.

**With reference to the 10 marker at the end of the exam, is it best to be clear, precise and concise or to write down as much relevant information in regards to area of study the question is asking you about. In my SAC’s, I tend to write down relevant information, but my teacher always tells me to define everything I add in. Do I have to do that?**

The simplest response (which applies to any question) is to answer the question (rather than just writing everything you know). Be clear about the task you are given. For example, in 2018, the task was to write a “detailed analysis” and in 2017 students were asked to write a “detailed and clearly organised set of notes”. There should be enough information in the prompt to give you an idea of the structure for the extended response. Use this as your “plan” as you would any normal essay. Make sure you use relevant psychological concepts and language to display your understanding and, most importantly, apply your response to the scenario that is provided in the prompt.

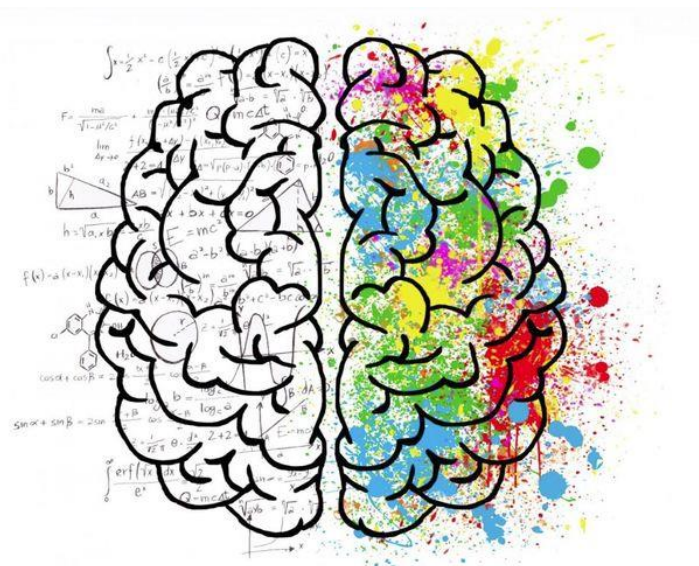
**When questions ask how will this work in this, is there always a mark allocated to providing the definition of that process or thing first? In some of the practice exams I have been doing there are but I’m not sure if this is what is expected.**

### **Unless explicitly asked, do you need to define the key terms to get the mark?**

Once again, the best advice I can give is to answer the question. Mostly it is implicit that you would need to demonstrate your understanding of a concept by defining it, but it is also highly likely that you will need to do so in the process of relating it to the prompt you are given. Generic definitions tend to attract very few (if any) marks. So, for example, on Question 1 of the 2018 VCAA exam, students needed to demonstrate their understanding of the lock-and-key process, but also apply it to the role of glutamate in neural transmission. Just providing a definition would not have been enough.

### **Do we need to know how to link the Different models of stress to key knowledges in other AOS's**

The VCAA exam can require you to make any relevant links between different parts of the study design. There have been very few short-answer questions about either the Transactional Model or the GAS model over the past two exams in this study design, so make sure you know these well!



### **For PART C, the extended response 10 marker, can we write in dot points and use subheadings?**

I have heard that some teachers encourage their students to use dot points in the extended response. I strongly recommend that you don't do this. The best responses are written in well-structured essay format. If the task is one that would be relevant to divide into separate sections, then it may be fine to use sub-headings, but generally this is not required.

### **How do we use abbreviations, if we write it in brackets once in the question can we just use the abbreviation later on?**

There are a couple of principles to adhere to. Firstly, if an abbreviation is used on the study design (such as GABA, EEG etc.), you can use these abbreviations on the exam. Secondly, as an assessor, if we understand the abbreviation (such as UCS or STM), we will generally award marks if what you have written is accurate. But it is also a good principle to use a full term (as you've suggested) and then abbreviations thereafter.

### **Is it alright to write on the side and under the lines given?**

The short answer is “yes”. Whatever you write will be included in the scans that are used by VCAA assessors. As a general principle though, if you run out of lines you have almost certainly written too much! Part of the process of writing excellent responses to exam questions is to be clear and precise.

### **How much time should I be spending on extended response and what do I need to do to get at least 8 out of 10?**

### **How is the 10-mark question assessed and how can I go about answering it? Also, how much time should be spent on it during the exam?**

I would encourage you to structure your time on the exam at roughly 1 minute per mark. If you can be slightly quicker on the multiple-choice questions (perhaps about 45 minutes) that is also helpful. If you are disciplined in your use of time, you should get to the extended response in under 120 minutes. This would leave you 30 minutes, 20 of which can be spent on the extended response and the remainder having a quick proof-read. I don't suggest you need to write any more than about 500-600 words to have a strong extended response. It's all about the quality and relevance of your writing. The extended responses are marked differently to other questions in that they are marked holistically. I teach my students an approach called “What? Why? Apply?” Make sure you explain clearly what psychological concepts are relevant, why they are relevant, and continually apply these to the scenario or prompt you are given. If you can do this is a way that is relevant to the task, using psychological language and demonstrating a sound understanding of these concepts, you will do well.

### **How many practice exams should I be doing and what commercial exams would you suggest? e.g. Insight, TSSM, etc.**

There are lots of exams on the market and I'm reluctant to recommend particular ones over others. They all have value in that they encourage you to practice applying psychological concepts to a range of different scenarios. None of them are perfect either, so don't be too put off if you encounter errors or content that is different to what you've been taught. Just check these with your teacher. In summary, the more different exams you do (regardless of which ones they are), the better prepared you will be. Make sure that you mark them thoroughly or get someone to mark them for you to ensure that your answers are on track.

### **How long should I spend on the multiple-choice section?**

I would generally encourage you to allocate about 1 minute per mark on the exam, with perhaps twice that (20 minutes) to the extended response. Having said that, if you work a little more quickly on the multiple-choice section (about 45 minutes or less), you can “buy some time” for other parts of the exam. The key message is to not spend too much time on any single question.

### **How do I prepare for my Unit 3 and Unit 4 psychology exam? Any past exam tips?**

This is a pretty general question, and the response is dependent on how well you've consolidated your learning thus far. So let's assume that each of the concepts have been well learned and that your task now is to prepare yourself as best as you can for the exam itself. The key is to do as many practice exams and exam questions under timed conditions as you can. If you are doing single exam questions, time them to allow one mark per minute. This is a useful thing to remember in short-answer questions. The number of marks allocated tells you two things. The first is how much time to spend on the question, and the second is how many separate pieces of information the assessors will be looking for. So when you are reading an exam question, you should also be asking the higher-order question "where are each of the marks likely to be allocated?". As for general exam tips: Devote your reading time to carefully scanning the short-answer questions. In writing time, do the paper in the order presented (multiple-choice questions first). Read each question carefully so you respond to what it is actually asking (rather than what you think it is asking). Always relate your responses to the scenario or prompt given. Work efficiently and don't spend too much time on any single question.

### **When is it appropriate to use dot points when answering a psychology exam question and when is it not?**

It is almost never appropriate. Ignore the advice that some teachers give to use dot points in the extended response. Perhaps if you are listing some items (such as the five elements of observational learning) it might be useful to provide dot points, but generally you don't need them.



### **Is there a specific manner in which a psychology short answer question must be answered? Is there a general structure that needs to be adhered to maximise marks?**

The structure is determined by the question/prompt itself and the number of marks provided. If you ask yourself the question "Where are the marks likely to be allocated" when you're responding to a short-answer question, you should be able to work out a relevant structure. To use Question 1 from the 2018 VCAA exam as an example, I would allocate each of the four marks to:

1. Describing glutamate as an excitatory neurotransmitter that is released into the synapse, making it more likely that the post-synaptic neuron will fire.
2. In the lock-and-key process, glutamate acts as a “key”, with a particular molecular shape.
3. It seeks to bind with a receptor point on the post-synaptic neuron.
4. If the post synaptic neuron has a similar molecular shape, it is more likely to bind, acting as a “lock”.

**Could you please re-explain why 2018 exam multiple choice question 36 is A, because it's still unclear.**

This question confused a few people! Remember that a double-blind procedure is one in which neither the experimenter nor the participants are aware of who is exposed to the IV. In this case the experimenter is effectively the research assistant (to ensure that no bias is involved). Because the researcher was not involved in the conduct of the study, this is a case in which they could know who was exposed to the placebo. This is also one of those questions where the other responses are clearly incorrect, so ‘A’ is the only possible correct answer (but only because the researcher was not directly involved in the conduct of the experiment).

**At which stage in Selye's GAS are individuals likely to exhibit symptoms like sore throats and colds? Is it during resistance (given these are minor symptoms) or is it during exhaustion?**

I actually think that symptoms like that can happen at any time, so I wouldn't be using them as examples. It's safest however to group any physiological signs of illness in the Exhaustion stage. I teach my students to link some of the symptoms of fight/flight/freeze with eventual outcomes if there is no relief from the stressor. Increased heart-rate over extended times increases the likelihood of heart disease or heart attacks. Increased muscle tension can eventually result in hypertension. Inhibited digestion over time may lead to stomach problems such as peptic ulcers. They are the sorts of psychosomatic illnesses associated with Exhaustion.



**Out of free, serial and cued recall, which is the least sensitive measure of retention? (do I need to be that specific or can I just say recall is the least sensitive?)**

I don't think you'll be asked to distinguish between different types of recall as far as sensitivity is concerned. But if you do, serial recall would be the least sensitive (because of the lack of access to a recency effect) and cued recall would be the most sensitive.

**Regarding Alzheimer's disease, do I need to mention Amyloid plaques and/or neurofibrillary tangles or just damage to the hippocampus?**

Knowing the symptoms of Alzheimer's disease, why they occur and the effect on memory, is important. It's reasonable to know that amyloid plaques and neurofibrillary tangles are among those symptoms, caused by increased proteins in the brain that inhibit neural transmission associated with memory.

**How much should we know about the structure and function of the brain that are not specifically on the study design? (frontal, temporal lobes and primary motor cortex and primary somatosensory cortex, for example).**

You don't need to know anything about these specific brain structures. They used to be on the Unit 3&4 Study Design, so you'll find them on previous exams, but this content has since moved to Units 1&2. You need to know the general function of the brain as part of the Central Nervous System, as well as the brain areas associated with memory such as the cerebellum, amygdala and hippocampus. The reference to the cerebral cortex in the study design is a very general one, referring to its role in storing explicit memories and implicit emotional memories. (Implicit procedural memories are both encoded and stored in the cerebellum).

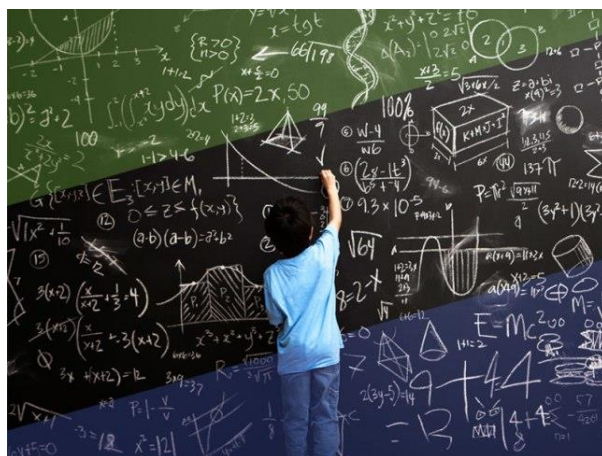
## SPECIALIST MATHEMATICS

**I am doing Specialist Mathematics next year. What does it involve and how difficult is the subject?**

Units 3/4 Specialist Mathematics is quite difficult, even for talented students, and that is one of the reasons that the ATAR boost is really high. It helps that all Specialist Mathematics students are doing, or have done, Maths Methods as the Calculus and the Probability knowledge overlaps significantly. The best advice is to work right from the beginning at all levels of questions. And buy a summary book to follow along with your teaching, like the Cengage A+ books. And students need persistence for the harder questions. So practice them as much as possible and don't give up or leave gaps. The subject involves Functions, Graphs, Diff and Integral calculus, Complex Nos, Vectors, Mechanics and Probability and Statistics.

**Do you have to fit your working out within the provided space in the exam? For example, showing an arrow to working out in the margins.**

Usually the provided lined space is larger than what is required, and some students worry they finish the question in a much shorter space, but yes you can use spare spaces on the paper, with an arrow and clearly labelled, to continue with your working if needed. Often there are spare pages throughout the paper for this purpose. Just write "continuing with qn 4a". A detail though, please remember that if you write a correct answer, say for 4a, in a wrong lined space, say for 4b, you will be deducted a mark.



**Just like specialist unit 1/2, is unit specialist unit 3/4 also applications-based exams.**

Specialist 3/4 has Exam1 with all Tech Free short answer questions. One hour.

Exam 2 is Tech Active and two hours. This exam will be tough.

Exam 2 has 20 Multiple Choice questions (some very difficult requiring quite a bit of working).

Exam 2 also has 4-6 non-routine questions, which range from easy to very difficult. These non-routine questions are sometimes called Analysis questions.

They go from easy part a) through to perhaps part g) of h) increasing in difficulty.

I'm not sure what you mean by "applications-based exams". The application task is a SAC worth 50% of the SACs and not an exam.

**In regard to the probability of making a type I error, is this probability equivalent to the level of significance, alpha, or the p-value?**

The p-value is the probability of observing a value of the sample statistic as extreme or more extreme than the one observed, assuming that the null hypothesis is true. Alpha is the significance level of the test. This significance level is the condition for rejecting the null hypothesis.

We say if  $p < \alpha$ , then reject  $H_0$ .

And, we say if  $p > \alpha$ , then we do not reject  $H_0$ .

It's important not to say accept  $H_1$ . We either reject or do not reject  $H_0$ .

$$\begin{aligned} S^2 &= \frac{a+b(d^2-c^2)}{\frac{1}{4} + \frac{32}{11} \left( \sqrt{\frac{d^2-c^2}{8}} \right)} \quad a-b = ? \\ &= \frac{a+b(d^2-c^2)}{\frac{1}{4} + \frac{32}{11} \left( \sqrt{\frac{d^2-c^2}{8}} \right)} \quad c+a \\ &= \frac{a+b(d^2-c^2)}{\frac{1}{4} + \frac{32}{11} \left( \sqrt{\frac{d^2-c^2}{8}} \right)} \quad \frac{1}{12} - \frac{7}{12} \left( \frac{a+b+c}{s+s'} \right)^2 \\ &= \frac{a+b(d^2-c^2)}{\frac{1}{4} + \frac{32}{11} \left( \sqrt{\frac{d^2-c^2}{8}} \right)} \quad S'' = V^2 + \frac{V^2 - V^1}{a} \\ &= \frac{a+b(d^2-c^2)}{\frac{1}{4} + \frac{32}{11} \left( \sqrt{\frac{d^2-c^2}{8}} \right)} \quad \alpha = \infty \quad c+a \\ &= \frac{a+b(d^2-c^2)}{\frac{1}{4} + \frac{32}{11} \left( \sqrt{\frac{d^2-c^2}{8}} \right)} \quad 2 = a - b^2 \quad 1 = 0 + 0 \quad \sqrt{\frac{a+b}{a}} \\ &= \frac{a+b(d^2-c^2)}{\frac{1}{4} + \frac{32}{11} \left( \sqrt{\frac{d^2-c^2}{8}} \right)} \quad + = cb' \quad S^2 - V^2 = a - c + a \\ &= \frac{a+b(d^2-c^2)}{\frac{1}{4} + \frac{32}{11} \left( \sqrt{\frac{d^2-c^2}{8}} \right)} \quad \sqrt{\frac{a+b}{a}} \quad ? \quad b+a^2 \quad \int = \frac{a+b(d^2-c^2)}{\frac{1}{4} + \frac{32}{11} \left( \sqrt{\frac{d^2-c^2}{8}} \right)} \end{aligned}$$

**How dependant are the exams on the CAS?**

The Specialist Maths 3/4 Exam 1 is all Tech Free short answer questions. One hour, no CAS at all.

Exam 2 is Tech Active and two hours. This exam will be tough.

Exam 2 has 20 Multiple Choice questions (some very difficult requiring quite a bit of working), where efficient CAS use will make you much quicker

Efficient CAS use means knowing when to use it and when to not use it. Only practice during the year will help with these decisions.

Exam 2 also has 4-6 non-routine questions, which range from easy to very difficult. These non-routine questions are sometimes called Analysis questions.

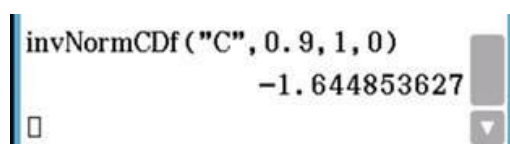
They go from easy part a) through to perhaps part g) of h) increasing in difficulty.

All of these questions provide “entry points” so if a student is completely lost, they can use what is given to continue. CAS is most important in these questions, particularly in defining a function at the beginning of a Calculus question. CAS is less important in Complex Numbers and Vectors.

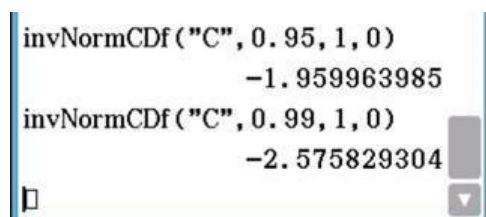
In summary CAS makes you much more efficient and quicker in Exam 2, and lots of practice with your CAS is vital.

**When do I use 1.96 and 2.58 for 95% & 99% confidence intervals rather than actual invnorm calculated values? Why is 1.65 connected to a 90% Conf Int when the Z score is 1.64485 (5dp)?**

On a ClassPad using Inverse Norm we can see that 90% CI gives you 1.65. I agree that rounding would actually give 1.64, But statisticians have decided to use 1.65



Again you can use InvNorm to get 1.95996.... and 2.5758... But statisticians have decided to use 1.96 and 2.58



So, you always use the commonly assumed and decided 1.65, 1.96 and 2.58 etc.

On a side note, a recent exam asked for an integer approximation for the z-score for 95%CI. And students were expected to use 2 instead of 1.96, to make the working easier as it was in Exam 1. (therefore, Tech Free).

**If you're given an equation in exam 1 or exam 2 and is defined as  $f(x)$  in the question. Let's say and asks us to find the bounded area can we write the integral of  $f(x)$  or do we have to write the whole equation?**

If the question states  $f(x)=$  at the beginning, you can absolutely use it throughout the qn.

You don't need to write the whole rule for the function out every time.

For example "State an integral statement that would find....."

You write  $\text{Integ}(f(x)) \, dx$ .....Just make sure it actually IS  $f(x)$  and not changed to, say,  $g(x)$  through the qn. Or  $f_1(x)$ .

Another point along this same line: several years ago, there was a really long derivative that had to be analysed. Students successfully said : "Let  $a=$  the section of the really long derivative" and then use  $a$  for the rest of the question until the last.

Step to save writing this section of working every time.