



MACQUARIE  
UNIVERSITY

FACULTY OF  
BUSINESS AND ECONOMICS



# HOW TO CREATE EXAMS

Learning through assessment

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# Foreword

*This booklet will:*

- *emphasise the relationship between learning outcomes and examinations,*
- *explain how the structure of examination questions affects the assessment of learning outcomes,*
- *discuss the wording of examination questions, and*
- *describe the format and presentation of examinations.*

Examinations are high risk for students — as much as 60% of their mark is based on a final examination. It is therefore important that we, as educators, create the best possible examinations that accurately and fairly measure students' knowledge and skills at an advanced level. This will help us to separate learners from walking memory banks, which are bankrupt after the examinations are over due to the failings of surface learning.

Assessment drives what students learn. The types of examination questions we set show students what we value and how we expect them to spend their time on our subject. Good questions help to build concepts, alert students to misconceptions and synthesise applications and theory.

Examinations can also be fun — to write and to mark! In this guide we emphasise that the examination must be presented in a format that is clear and the questions expressed in accessible language — this does not mean that the tasks and questions are unexciting or routine.

You need to consider three key principles when you're creating exam papers:

- **Relevance** — the content of the examination must be aligned to the targeted learning outcomes.
- **Accessibility** — the language used must be accessible to the student group.
- **Clarity** — the content must be presented in a clear and predictable manner.

These guidelines were developed through detailed linguistic and content analysis of 50 past examination papers from a variety of business disciplines. We analysed the types of questions used in business, the layout of the questions and the wording. This means we have looked at the way experienced examiners have designed questions and we have chosen examples from these papers to highlight desirable features. Ideas from other people's research have also been included in this guide, where they may be helpful in creating interesting and focused examination questions.

The Learning Excellence and Development (LEAD) program brings together a multi-disciplinary group of university staff, using an action research approach to nurture a responsive teaching culture. Central to the program is pedagogical change for the improvement of learning. These LEAD guidelines will take you through creating exam papers, from developing individual questions to the final presentation, in the context of an increasingly culturally — and therefore linguistically — diverse student population<sup>1</sup>.

<sup>1</sup> Watty, K., Yu, L., & Lowe, L. (2006) *Assessing students unfamiliar with assessment practices in Australian universities* (Final Report to the Carrick Institute for Learning and Teaching in Higher Education 2006). Sydney, Australia: The Carrick Institute for Learning and Teaching in Higher Education Ltd. See page 7 in particular (available from <http://www.altc.edu.au/carrick/go/home/grants/cache/offonce/pid/3427>)

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# Creating an EXAM

*You may have already tackled the task of writing examination papers in the past, but you want to do it better in terms of meeting the twin goals of any assessment method — assessing the knowledge and skills gained as well as encouraging further learning. So, apart from the key content of the exam relevant to the subject, what are the other things you need to consider? One of the main contributions to a successful exam is the language you use and this will be a major focus of the discussion in this guide.*

To satisfy the principles of relevance, accessibility and clarity, you need to pay attention to the structure and wording of each question, and the presentation of the whole exam. These features all contribute to the three underlying principles, but to differing degrees (as represented in the table).

## Structure

Structure in the sense used here does not refer to the whole of the examination, but rather to the arrangement of elements within each question (see Hasan, 1985<sup>2</sup>, for an in-depth discussion of structure). The most important is the core element (the nucleus), which contains the substance of the question (you may find that some of your questions will have more than one nucleus).

As well as the nuclear element/s, you may also want to include other information — additional elements — which either relate to the context of the question, or to how the question should be answered. You can use this extra information to target the level of learning you wish to assess or encourage, and these additional elements can be used to more clearly target a specific learning outcome. For example, the inclusion of contextual information may allow you to test the students' ability to apply the knowledge they have gained; conversely, the absence of this kind of information may restrict the level of learning being assessed to simple retention of facts (that is, via a simple, bald question requiring a simple answer).

	Relevance	Accessibility	Clarity
Structure	[Light blue shading]		
Wording	[Light blue shading]	[Light blue shading]	
Presentation	[Light blue shading]		[Light blue shading]

<sup>2</sup> Hasan, R. (1985) in Halliday, M. A. K., & Hasan, R. *Language, context and text: Aspects of language in a semiotic perspective*. Victoria: Deakin University Press.

## Wording

Our survey of previous EFS exam questions highlighted a range of considerations in the wording of exam questions, in terms of meeting the aims of relevance, accessibility and clarity. Be warned (and possibly excited?) — you will be getting a crash course in basic grammar and linguistics! We have included a glossary at the end to help you with some of the terms (see page 23).

Thinking about the wording can be divided between deciding on the way the nucleus (or core element) is expressed in terms of its grammatical form (in this context, the forms used are question, command and statement<sup>3</sup>) and the way that the additional elements are incorporated. We have therefore separated the discussion of these into two chapters in this guide.

The grammatical form of the nucleus is particularly important as it can directly affect the relevance of the question to the learning outcome. This is because the different grammatical forms (that is, question, command and statement) lead to specific expectations about the format of the answer. The grammatical form also has an influence on accessibility (and to some extent clarity), since particular forms of questions imply particular forms of answers. If the form of both the question and the answer are not aligned, understanding the meaning of the question may depend on external, implicit knowledge that may not be shared by all your students.

The wording of additional elements has two aspects. The first is the location of the element within the structure of the question; that is, the unit of language at which the element is added (for example, as part of a phrase, or a clause, or in separate text). Secondly, if the additional elements are added as larger units of language, that is clauses or sentences, you need to carefully consider the sentence structure and the grammatical form to ensure the information is accessible and clear.

Another consideration for writing these extra elements is where you want to present extensive contexts and scenarios. The context must be comprehensible for all your students, so take care with the length and complexity bearing in mind their language competency. The contexts you create should be as realistic and culturally neutral as possible.

## Presentation

Once you have a final version of the questions, you need to think about how you will present the exam as a whole. How will you divide it up — will you make separate sections? What order will you put the questions in? What kind of formatting and layout will you use? You will also need to think about what other information and instructions about the questions should be included.

The next section takes a look at the importance of aligning examinations to the learning outcomes that you wish your students to achieve. The rest of the guide gives a more detailed discussion of structure, wording and presentation.

<sup>3</sup> If you really get the bug for linguistics, this is a good introduction: Butt, D., Fahey, R., Feez, S., Spinks, S. & Yallop, C. (2000). *Using functional grammar: An explorer's guide*. Third and Revised Edition. Sydney: NCELTR; & Open University Press: Milton Keynes.

*I prefer the written exam because for the written exam it ah it gives the students' time to concentrate on what their best and know something. Because if we just give the oral maybe they will feel ah anxious ah and maybe for one question they (international students) need to have more time but if in the written exam they can allocate the time.*

### Student

*Yeah so like sort of I guess construct the exam, testing both sort of theory and practical knowledge, and the prac exams sort of do that. But. so instead of just asking questions about whether I learnt a slide or did a reading, but actually taking that knowledge and putting it into something I'm going to use in the future, or letting me show my understanding of that knowledge instead of just asking closed questions that don't actually let you go on about it, if that makes sense.*

### Student

# Aligning exams to LEARNING OUTCOMES

When you start teaching a subject, you have ideas about what levels of learning and what content you wish to assess through a written examination. But before you begin writing the questions, it is important to work out specifically which learning outcomes you want to target. Are you more interested in gauging the extent of knowledge your students have accumulated; or how well they have learnt to apply that knowledge? Or are you more concerned about what kinds of analysis skills they have developed? You may in fact want to know about a spectrum of levels of learning. Additionally, and hopefully, you may want to design the exam to extend their learning further. Learning outcomes can be defined as:

*The Learning Outcomes are the capabilities that the student must demonstrate in order to pass a unit ... These are what must be assessed in each unit.*<sup>4</sup>

There are two aspects to learning outcomes, both of which will be relevant to designing your questions to test the learning outcomes:

- the level of learning (for instance comprehension, synthesis, or evaluation), and
- mastery of the subject content.

Here are some examples of EFS exam questions. We will use these samples to tease out the strands of learning:

- Describe aspects of the evolution of management.
- Demonstrate knowledge of the major approaches to management.
- Explain the major functions of management.
- Apply the principles of management to a practical problem.

In these examples, the words *describe*, *demonstrate* (knowledge), *explain* and *apply* indicate the level of learning. The phrases or groups of words, that is, *of the evolution of management*, *of major approaches to management*, *the major functions of management* and *of management* indicate the subject content.

The level of learning may vary across the subject content, as is represented in the matrix.

<sup>4</sup> Macquarie University (2008) *Glossary of terms*. In "Guide to implementation of assessment policies". September 2008. page 7.

## The Matrix

	Evolution of management	Major approaches to management	Functions of management	Principles of management
Knowledge				
Comprehension				
Application				
Analysis				
Synthesis				
Evaluation				

The categories for the levels of learning used in the matrix (knowledge, comprehension etc) are based on Bloom's classification (or taxonomy) of educational objectives<sup>5</sup>. This scheme is a useful starting point for understanding and defining the level of the learning outcomes you are aiming for.

The matrix represents a progression in the levels of learning, which should evolve through from first year courses to third year courses. You may need to refine the taxonomy and the progression through the learning objectives to suit your particular context. Smith and his co-writers<sup>6</sup> give examples of how to use Bloom's taxonomy to write a variety of innovative question types for the discipline of mathematics.

Examinations are of course only one means through which the students' level of achievement in the learning outcomes can be assessed. Exams are generally used in conjunction with other assessment methods, such as written assignments, practicals and (tutorial) exercises, and so they do not need to cover all the learning outcomes of a unit; nonetheless they should still align with the achievement level of the relevant learning outcome(s). For example, if the required outcome is synthesis, the exam should assess that and not just knowledge. Conversely, exams should not be used to assess achievement beyond the targeted learning outcomes. This is particularly important in a culturally diverse student group as they may have little or no shared implicit cultural knowledge, so you need to be careful that you are not testing general knowledge as well as (or instead of) the relevant subject area.

The extent to which a question assesses the students' level of learning is closely related to the activity the student will have to undertake to answer the question. This activity can be categorised by the answer type, such as multiple choice questions, short answer questions, or essay-style questions. It's worth noting, however, that the format of the answer does not necessarily limit the level of learning being assessed as this can also be directed by the structure and wording of the question: for example, a question that requires a selection from a set of choices may still be constructed in order to assess application, analysis or evaluation.

The following section will take you through the construction of questions in terms of their structural elements. In addition, the contribution the structure makes to the assessment of the level of learning will be discussed.

<sup>5</sup> Bloom, B., Englehart, M., Furst, E., Hill, W., & Krathwohl, D. (1956) *Taxonomy of educational objectives: The classification of educational goals*. New York: Longmans.

<sup>6</sup> Smith, G.H., Wood, L., Crawford, K., Coupland, M., Ball, G., & Stephenson, B. (1996) "Constructing mathematical examinations to assess a range of knowledge and skills", *International Journal of Mathematics, Education, Science and Technology*, vol. 27, no. 1, pp. 65–78.

*I'd like to think that even in the final exam — which is an assessment — that you're still learning because the question is different, the scenario is different and they're still learning. So it's sort of like a dual thing, they're showing what they know but, likewise, I'd like to think that they come out there knowing more before they sat for the final exam.*

**Academic**

*The starting point then is ... what are the unit objectives? Because assessment is about measuring the extent to which a student's achieved those. Then, once you've identified that, there's the issue of the trade-off between relevance and reliability.*

**Academic**

# Structuring the QUESTIONS

*When you have a rough scheme of the overall exam and the learning outcomes you wish to assess are clear in your mind, the next step is to start writing the questions. Before writing any questions though, the first decision you need to make is — what form should you use for them?*

The most basic form of an exam question is a single sentence, which expresses the main content (or nucleus) of the question.

## NUCLEUS

*What is the term structure of interest rates?*

In this structure, the information provided to the student is very limited. There is no information on the type of mental activity required, or on the length or format of the answer. The most appropriate response to this form of question would be a simple phrase or sentence. For example the answer could be:

X

or

*The term structure of interest rates is X.*

This type of basic structure is therefore most suited to situations where you only require a short answer and, since there is no contextual information given, it is limited to assessing the recall of knowledge.

To go beyond the level of pure recall, you can expand the question by the addition of information about the context or the format of the answer (or both). Most commonly, the contextual information is placed before the main sentence (or nucleus); information about the format of the answer is normally placed after the nucleus.

## CONTEXTUAL INFORMATION

*Epex Pty Ltd makes a single product. Annual fixed expenses are \$48,000 and the contribution margin ratio is 30%.*

## NUCLEUS

*What volume in sales dollars is necessary for Epex to achieve a target profit of \$15,000?*

In the above example, the addition of specific contextual information has enabled the application of knowledge to be assessed as well.

## NUCLEUS

*Explain the relationship between a control account and a subsidiary ledger.*

## ANSWER FORMAT

*Your explanation should include a discussion of the purpose of a subsidiary ledger.*

In this example, the addition of information about the answer format has been used to specify a necessary component of the answer (that is, *a discussion of the purpose of a subsidiary ledger*). This kind of information is particularly important where you require longer answers (such as essays), since in these cases a single sentence cannot fully capture your expectations. The inclusion of information on answer formats is usually necessary to address higher levels of learning, for instance analysis, synthesis or evaluation.

*It's a lot better if you're in the class and they go through it and you know exactly what he'll be looking for or she'll be looking for. And then you can study for that. It just gives you a bit of a boost up so you know what you're studying for. I find that if I don't know what I'm studying for then I generally just don't study, which is a bit of like throwing up your hands, but you need a bit of guidance, because you could just spend a day studying completely the wrong thing. And that's a bit of a waste.*

**Student**



You can also give much more detailed scenarios, in separate paragraphs or even as separate texts where case studies or articles are provided, for example:

<b>SCENARIO</b>	<i>A superannuation plan has three liabilities, each of \$10,000, payable 4, 5 and 6 years from now. Its assets consist entirely of zero coupon bonds, some maturing 2 years from now and the remainder maturing 8 years from now. The yield curve is currently flat at 6% p.a.</i>
<b>NUCLEUS 1</b>	<i>(a) If the values of the assets and liabilities are equal and the durations of the assets and liabilities are equal, determine the total face value of each type of bond held. (7 marks)</i>
<b>NUCLEUS 2</b>	
<b>NUCLEUS 3</b>	
	<i>(b) Investigate whether the superannuation plan has achieved Redington immunisation. (2 marks)</i>
	<i>(c) Explain 4 factors which make Redington immunisation an impractical strategy in practice. (4 marks)</i>

Here the scenario is in a separate paragraph at the beginning, before the requirements (in this case there are three requirements). The scenario and the requirements should be clearly identified, for instance here the requirements appear as an identifiable list below the scenario; you can also use sub-headings to delineate information. This inclusion of contextual information (the opening paragraph) allows the application of knowledge to be assessed. As you develop more complex scenarios, the level of learning being assessed can also be extended, to analysis or evaluation. The following example includes both contextual information and information on the answer format, thus allowing analysis, synthesis and evaluation to be assessed.

<b>CASE STUDY</b>	<b>NUCLEUS</b>	<i>(a) Respond to the attached case in Case Study Format. (7 marks)</i>
	<b>ANSWER FORMAT 1</b>	
	<b>ANSWER FORMAT 2</b>	
		<i>Your case analysis should include:</i>
		<ul style="list-style-type: none"> <li>• strategic intent</li> <li>• mission</li> <li>• core values</li> <li>• goals</li> <li>• external analysis: general and industry environment, competitive environment</li> <li>• internal analysis: resources and capabilities</li> <li>• SWOT analysis</li> <li>• current strategies</li> <li>• future strategic options and/ or recommendations</li> </ul>
		<i>Your analysis does not need to be limited to the factors and forces mentioned above. You may include additional analyses determined by you as relevant and useful in analysing the case.</i>

In this question the contextual information is a case study in a separate text. When including scenarios in exam questions, it is important that you ensure that the length and complexity of the text is suitable for the reading ability of your students and that it is feasible to work through it within the (time) limitations of the exam environment.

*True false are good for science, that type of thing because you do need to know the names, you do need to know the right or wrong answer, like you need to be able to discriminate and that gives you the chance to do that.*

**Student**

# Wording questions — THE NUCLEUS

*Once you have the basic structure of your questions, the next step is to polish the wording. The language you use will be critical for achieving all three of the fundamental principles (relevance, accessibility and clarity), and there are two sections in this guide devoted to the critical factors in wording questions. This section deals with aspects of writing the essential content, or nucleus; the following section looks at the wording of any additional elements you might want, or need, to include.*

*So don't ask questions that people can just memorise, ask questions that people have to think about and use like some sort of rationale to be able to answer. Um, you get that with a lot of teachers, I'd say most exams are pretty badly written.*

#### **Student**

*I'd rather have a question like, explain this, to me always 'explain this' has always been a great way to test somebody because then you can actually learn what that person knows. And if you do it 'explain this' in 5 lines they can't ramble on for 2 pages, you know how some people do that. So we had that for a couple of exams we had a 'explain something really complicated' but use a specific amount of lines and that was probably one of the most difficult things, difficult forms of exams I've ever written but it really tested whether you knew stuff.*

#### **Student**

## Nucleus — Question, Command, Statement

The term "exam question" is somewhat misleading, as the nucleus may be expressed as a question or a command or, in the case of multiple choice and true/false questions, as a statement. For example:

#### **Question**

*What is the term structure of interest rates?*

#### **Command**

*Explain the Law of One Price.*

#### **Statement (multiple choice)**

*The goal of financial management is:*

- A: Survival*
- B: Maximise costs and minimise profits*
- C: Avoid bankruptcy*
- D: Both A and C above*
- E: All of the above*

#### **Statement (true/false)**

*The Superannuation Guarantee legislation was introduced by the Labour Party.*

Whether the nucleus is expressed as a question, command or statement (that is, different grammatical forms), will affect the extent to which the question can address your desired learning outcomes in terms of the level of learning you are testing.

## Questions

If the nucleus is expressed as a question, one of a limited number of 'wh-' words can be used at the beginning of the clause. The 'wh-' words are what, which, why, how, who, when, where. Each of these words refers to different types of missing information, which in turn will affect the level of learning that can be examined (particularly in the absence of additional elements), as well as the format of the answer (with the exception of multiple choice questions where the format of the answer is obvious). This is shown in the following table, again using Bloom's classifications of learning objectives.

Element	Type of information	Level of learning	Answer format
<b>what</b>	identity of missing element	knowledge	word(s) figure(s)
<b>what X</b>	identity of a subset of a group	knowledge comprehension	word(s) figure(s) formula(s)
<b>which X</b>	identity of a subset of a group	knowledge comprehension	word(s)
<b>why</b>	reason justification	comprehension	sentence(s)
<b>how</b>	methodology	comprehension	sentence(s)
<b>how X</b>	extent	application	word(s) figure(s)
<b>when</b>	time	knowledge	phrase(s)
	under what circumstances	comprehension	sentence(s)
<b>where</b>	place	knowledge	phrase(s)
<b>who</b>	identity of a person	knowledge	word(s)

This table demonstrates that there are two significant implications of using 'wh-' questions in the context of examinations:

- Whilst the level of learning being assessed may vary to some extent depending on the context, the type of information being sought in this form means that 'wh-' questions are generally limited to knowledge, comprehension and application.
- The answer format is implied by the type of information being sought and it is therefore limited to short answers, that is, sentences or smaller units.

This means 'wh-' questions are most suited to short answer questions assessing knowledge, comprehension and application.

You should also bear in mind that the grammar used in the construction of questions in English is not only complex but is also not commonly used in other languages. This is likely to make this kind of format difficult for students from non-English speaking backgrounds (NESB) to understand.

## Commands

When the nucleus of the question is expressed as a command, the action required of the student, and the level of learning being assessed, is expressed by a verb. There is a greater number of verbs that can be used in commands than there are 'wh-' words that can be used in questions. This may seem obvious, but the implication of the greater variety means that commands can be used to assess a wider range of levels of learning, the full range in fact.

A potential difficulty of this variety is that the meaning of verbs is much less restricted and well defined than that of 'wh-' words, so the meaning will vary with context and amongst writers. Because of this, it is a good idea to identify for your own purposes a set of verbs for use in examinations, along with their meaning, the level of learning they will be used to assess, and a definition of the appropriate answer format/s. To help your students along, you can make this information available to them prior to the examination. (Of course, in the exam itself you may need to provide extra information about the answer required as we discussed in the section on "Structuring the questions".) The following table provides a list of command verbs, with examples, their meaning, the level of learning being assessed and the implied answer format (the examples were derived from our research on EFS exam questions).

Verb	Example	Meaning	Level of learning	Answer format
<b>Identify (name, indicate, give, list, state)</b>	Identify the three types of service entities.	provide information	knowledge	word(s) phrases
<b>Define</b>	Define the Crude Out-Migration Rate, Crude Net Migration Rate, Total Migration Rate, Migration Effectiveness Rate and the Migration Ratio.	provide a definition	knowledge	phrase(s) sentence
<b>Describe (outline)</b>	Describe the equal representation rules as they apply to industry funds.	provide a comprehensive description	comprehension	paragraph(s)
<b>Compare</b>	Define, explain and compare acquisitions and mergers as a strategic option.	describe similarities and differences	comprehension	paragraph(s)
<b>Explain</b>	Explain the Law of One Price.	provide a comprehensive description with reasoning	comprehension	paragraph(s)
<b>Calculate (determine, compute)</b>	Calculate the Crude Net Migration Rate, Total Migration Rate, and the Migration Effectiveness Rate for persons aged 10 plus in the above hypothetical country in 2001.	apply a method or formula to determine ...	application	figure(s)
<b>Estimate</b>	Given the following data for 1991 and 2001 census conducted in a hypothetical country, estimate the net migration for persons aged 10+ in 2001 in that country.	apply a method or formula to approximately determine ...	application	calculation(s)
<b>Prove (show)</b>	show that the price paid for the bond on 1 May 2004 was \$1,019.49.	demonstrate understanding of a method or formula	application	calculation(s)
<b>Record (prepare, make)</b>	Record each of the above transactions in the appropriate special journal (ignore GST).	apply procedure	application	table(s) of figures
<b>Derive</b>	Derive a formula for the arbitrage-free forward price in terms of the numbers and pronumerals given above and any relevant interest rate.	develop a method based on comprehension	synthesis	formula(s)
<b>Write a xxxx (draft)</b>	Write a report summarising the necessary stages for transforming a brochure-ware site to a one-to-one interactive site.	provide a recognised text type as/incorporating the answer	synthesis	specified in the question
<b>Discuss (analyse, comment on, examine)</b>	Discuss the differences between Absolute PPP and Relative PPP.	provide a description, taking into account differing points of view and/or evidence, with a reasonable conclusion	evaluation	paragraph(s) essay

## Commands including 'wh-' words

When the nucleus is expressed as a command it is possible to include a 'wh-' word immediately following the verb, in order to extend and clarify the verb. Here are some examples:

1. Indicate **which** of these technologies is divisible in production and explain your answer.
2. Explain **what** we mean by Purchasing Power Parity.
3. Briefly explain **why** the assertion in (c) is relevant to the control you identified in (b).
4. Explain **how** the internal control activity addressed the risk.
5. Discuss **how** branding adds value with reference to the video cases viewed in class, namely, 3M, Singapore Airlines, AMEX, Club Med and Haagen Daaz.
6. Describe **why** culture, as opposed to financial issues, might lead a business to failure in a new country.
7. Discuss **why** Wombat Life would be interested in selling old-fashioned "traditional" business in Howondaland when it no longer sells these policies in Australia.

This type of construction can be useful as it combines both the resources of the verb in expressing the level of learning being assessed, with the resources of the 'wh-' word to specify the missing information. A word of warning however — the combination of a command verb with a 'wh-' word is potentially confusing for many readers and you should use this form with extreme care, indeed try and avoid it if possible. Avoidance is easier for the 'wh-' words *what*, *which* and *who*, since only an identity is being asked for. Therefore, examples 1 and 2 above could easily be reworded as:

1. *Which of these technologies is divisible in production? Explain your answer.*

or

1. *Identify the technologies that are divisible in production and explain your answer.*
2. *Explain the meaning of Purchasing Power Parity.*

If the 'wh-' word is *why* or *how*, which require explanations or reasons in a longer form, it is better to use the command format since a 'wh-' question implies a short answer. However, if a short answer is actually required, a question form can be used, for instance:

3. *Briefly explain why the assertion in (c) is relevant to the control you identified in (b).*

This question could be reworded as:

3. *Why is the assertion in (c) relevant to the control you identified in (b)?*

If the 'wh-' word is how it can be replaced with the ways that:

4. *Explain the ways that the internal control activity addressed the risk.*
5. *Discuss the ways that branding adds value with reference to the video cases viewed in class, namely, 3M, Singapore Airlines, AMEX, Club Med and Haagen Daaz.*

Bear in mind that although this removes the 'wh-' word, there is still a great deal of complexity in the structure. That is, *the ways [that the internal control activity addressed the risk]*, where a complex group is used to describe ways. This kind of complexity is discussed further in the section on additional elements.

The word *why* is harder to replace and it may be necessary to use a verb that more explicitly addresses the level of learning, for example:

6. *Discuss the role of culture, as opposed to financial issues, in the potential failure of a business in a new country.*
7. *Explain Wombat Life's strategy of selling old-fashioned "traditional" business in Howondaland, when it no longer sells these policies in Australia.*

## Statements

It is quite common for a statement to be used as the nucleus of a multiple choice question, in which the student has to select the answer that completes the statement correctly; or as the nucleus of a true/false question, in which the student has to specify whether the answer is true or false.

A statement as the nucleus of a question is only suitable for these two forms, that is multiple choice or true/false questions. This is because there are no 'wh-' words you can use to specify the missing information, nor are there verbs to specify the level of learning being assessed. In the context of multiple-choice questions, statements avoid the potential grammatical complexity of 'wh-' questions and so may be more suitable for a group that has many NESB students. Although statements as a nucleus are most readily suited to assessing knowledge, if contextual information is added they can be used to assess other levels of learning.

In the next section we will have a look at the wording of additional elements, such as contextual information.

*I have also found exams have brought out some really extraordinary answers that we do not get in essays.*

### Academic

*I was surprised, the other day, to hear a student say his preferred form of assessment was exams. We asked why, and he said it was an opportunity to prove what he could do, without help from anyone else.*

### Academic

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# Wording questions — ADDITIONAL ELEMENTS

*Now that you have developed the nucleus for each question, you may find you want to expand on them with extra elements in order to give information about the context, or on how to answer the question (as discussed in the section “Structuring the questions”). While you can add these items at different levels (or units) of language, the level at which this information is added may affect the accessibility and clarity of the question — the more complex the question, the more difficult it may be to understand. Furthermore, no matter at which level the information is added, there are still issues that need to be managed to ensure accessibility and clarity.*

Extra elements can be added:

- within a nominal group (that is, a group of words that has a noun or pronoun at its core)
- as a prepositional phrase (that is, introduced by a preposition)
- as an adverb or adverbial group
- as a clause
- as a sentence
- as separate paragraphs, or as separate texts.

Each of these options are discussed in turn in this section.

## Within a nominal group

This type of group, whether it is a single noun or a noun with additional information before and/or after it, is most typically used to express a subject area, for example:

*inflation*

*the law [of one price]*

In English, a nominal group can consist of only a single word. On the other hand, it can also be a very complex structure containing additional phrases and clauses that follow and define the main noun.

For example:

*inflation*

*the law [of one price]*

*the relationship [between a control account and a subsidiary ledger]*

*the role [of culture, [as opposed to financial issues], [in the potential failure of a business [in a new country] ]].*

*Wombat Life’s strategy [[of selling old-fashioned “traditional” business in Howondaland, when it no longer sells these policies in Australia.]]*

*the journal entries [[to write off the bad debts [[considered as uncollectible]] ]]*

In these examples, the main noun is in bold and the square brackets indicate the additional phrases (single brackets) and clauses (double brackets) which are embedded in and define the main noun. This is a handy scheme that linguists have developed to identify the structure of groups of words, and it will be used throughout this section.

As these examples show, the nominal group has the potential to become very complex with multiple levels of embedding. These levels can be used to further define the subject area, for example:

*the law [of one price]*

*the journal entries [[to write off the bad debts [[considered as uncollectible]] ]]*

Or to express specific contextual information:

*The price [[that should be paid on 13 July 2007 || to yield j–6% to maturity]]*

(Note: the symbol || indicates the boundary between clauses.)

In these cases you should be aware that, as the complexity increases, information is being moved further and further down in the structure of the nominal group (that is, to the right). The greater complexity can make the meaning increasingly inaccessible to the reader.

Furthermore, particularly in the case of embedded subject area information, with greater complexity the main noun has the tendency to become more and more abstract; it can thus imply higher levels of learning. For example,

*Discuss the differences [between Absolute PPP and Relative PPP].*

Here, the verb *discuss* targets the level of learning being assessed. In addition, the noun *differences* is a nominalisation of a process (that is, a noun is created from a verb), that of contrasting “Absolute PPP” and “Relative PPP” to identify differences. The student therefore has to undertake two activities; one embodied by the command verb, as is typical, and the other by a noun, which is less typical and therefore may be less obvious to the student.

Such complex nominal groups are a feature of English and they can be difficult to avoid. They are often an indication that too much information is being packed into the nominal group, so it may be better to express additional elements as more distinct units of language.

*Exams, yeah, I think that they're ... they not only make you learn all the material they want you to learn but I think also they make sure you know it quite well, because if you, you can't just learn your stuff you actually have to retain it and go into the exam and be able to really understand it, so I think exams encourage I think the most comprehensive sort of understanding of the material. And I mean exam skills are important as well, just to make you be able to answer questions you know quickly and as they come.*

**Student**

## Groups and phrases

Both contextual and answer information elements can be expressed as a separate prepositional phrase (that is, introduced by a preposition) or group of words with no preposition (that is, a single adverb).

In Mintzberg's model	which management roles	are	the focus
prepositional phrase	nominal group	verbal group	nominal group

Evaluate	this trend	from an ethical perspective
verbal group	nominal group	prepositional phrase

Derive	a formula for the arbitrage-free forward price	in terms of the numbers and pronumerals given above and any relevant interest rate
verbal group	nominal group	prepositional phrase

In the above three examples, prepositional phrases are used to express contextual information.

Record	each of the above transactions	in the appropriate special journal
verbal group	nominal group	prepositional phrase

In a paragraph of 400 words	explain	the Law of One Price
prepositional phrase	verbal group	nominal group

In the above examples, prepositional phrases are used to express answer format information.

Briefly	explain	the Law of One Price
adverbial group	verbal group	nominal group

It is also possible to express answer format information as an adverbial group (*Briefly* in the above example). However, it is better to avoid this since the meaning of an adverbial group may be open to interpretation (what is brief?) and much more explicit information can be provided by a prepositional phrase, as in the previous example (*in a paragraph of 400 words*).

## Clauses

Sentences may have a simple structure consisting of a single clause, for example:

*Explain the Law of One Price*

or a more complex structure with multiple clauses, for example:

*Explain the above statement || by comparing the model of perfect competition with that of monopoly.*

In the latter example the second clause is used to give information on the format of the answer. The greater the sentence complexity, the more difficult it will be for students to understand. Therefore it is often suggested that only sentences containing a single clause should be used in examinations. In practice, restricting yourself to a single clause is often quite difficult to achieve. Furthermore, it can lead to an unnecessarily disjointed text, because the relationships between the sentences are unclear, and increase the pressure to use nominalisation (that is, turning an action into an object). For example:

1. *In both monopoly and perfect competition the profit maximising output is at the level at which  $MR = MC$ , || but only in the latter is the optimum output level such that  $P = MC$ .*

*Explain the above statement || by comparing the model of perfect competition with that of monopoly.*

This can be re-written as:

Question 1	Economic models	20 marks
<p><i>In both monopoly and perfect competition the profit maximising output is at the level at which <math>MR = MC</math>. However, only in perfect competition is the optimum output level such that <math>P = MC</math>.</i></p>		
<p>Explain the above statement in an essay of approximately 4 pages. Your essay should include a comparison between the model of perfect competition and the model of monopoly.</p>		

For the first sentence, the two clauses are of equal status and therefore they can be separated into two sentences with *however* expressing the meaning expressed by the *but* previously. However, the second sentence originally consisted of an independent clause — expressing the nucleus — and a dependent clause (that is, that cannot stand on its own), giving answer format information. When the sentence is divided into two separate sentences the difference in status between the two clauses is lost.

Furthermore, the process *comparing* (active) has been nominalised to *comparison* and the meaning is slightly different. That is, in the original sentence the process of *comparing* was a means of answering the question, whereas in the re-written version it is an additional requirement. Given this kind of difficulty, it may be necessary for the nucleus of a question to be a complex sentence consisting of both an independent and dependent clause where you want to address higher levels of learning. However if you do use a complex sentence, then the sentence should be limited to two clauses and the relationship between these must be made very explicit.

The independent clause should always express the nucleus (that is, it should be able to stand on its own) and the dependent clause should only be used to express additional contextual or answer format elements. The lower status of the dependent clauses should be indicated by a conjunction, specifically a subordinating conjunction as shown in these examples (the conjunction is in bold):

*What is the maximum amount the company should be willing to pay an outside supplier per unit for the part || **if the supplier commits to buying all 50,000 units required each year?***

*How much must the gambler have as her initial capital || **in order to have at least a 50;50 chance of attaining her \$30 goal?***



The dependent status of the second clause and the relationship in terms of meaning between the two clauses have thus been made overt by *if* and *in order to* respectively. The following table gives examples of subordinating conjunctions and the relationships they express.

Relationship	Subordinating Conjunction	
<b>extending</b>	addition	as well as, besides
	adversative (opposition)	while, whereas
	variation	if not ... then; instead of, rather than
<b>enhancing</b>	time	when, once, while, after, before, since, until, till, on
	place	where
	cause	because, since, as
	purpose	so that, in order that, in order [to], in order [for X to], so as [to]
	condition	if, provided (that), in case, unless
	concession	although, though, even if
	manner	as, as if, like
	manner: means	by (means of)

This table demonstrates that a number of different conjunctions can be used to express the same kind of relationship; equally the same conjunction can be used to express different types of relationships. In order to reduce this ambiguity, you could develop a set of conjunctions for yourself to use in exam questions together with the relationships they express, and then share them with the students prior to the exam.

A final consideration is that while the subordinating conjunctions indicate the status of the clauses within the nucleus and thus the status of their content, you can emphasise this further by showing the independent clause in a different font or in bold. This is particularly helpful when the student group comes from diverse linguistic backgrounds. In English, the dependent clause can occur either before or after the main clause, but in many other languages the dependent clause has a fixed position.

## Sentences

If additional elements are expressed as separate sentences, this may falsely indicate to the reader that they are at the same level of importance as the nucleus. To address this potential pitfall you need to ensure that you maintain the emphasis on the nucleus. As discussed earlier, the three grammatical forms most typically used to express the nucleus of a question are 'wh-' question, command or statement. If you express the nucleus by a 'wh-' question or a command, you should retain this form for the nucleus to maintain clarity; additional elements can then be made distinct by being expressed as statements.

For example, in the following questions, commands have been used in several places and therefore the main requirement of the question is not clear:

*Read the case, "Woolworths: maintaining market leadership" (7 pages in total). It has been reprinted in this exam paper on the pages that follow the question below.*

*Use Case study Analysis format to answer the first part.*

*Use the following headings to organise your answer.*

- *General Environmental Analysis*
- *Porter's Five Forces*
- *SWOT*

*Ensure the above is evident in your answer booklet.*

This can be reworded as:

*Write a Case Study Analysis on the attached case, "Woolworths: maintaining market leadership".*

*You must read the case fully before you begin your answer.*

*Your answer must be organised under the following headings*

- *General Environmental Analysis*
- *Porter's Five Forces*
- *SWOT*

*These headings must be clearly shown in your answer.*

*I've had lecturers ..., some like to help you out before exams, some don't. You don't need to be given the questions, case questions and answers. But if they can give you a guideline of what the subjects will be and how best to approach it, then that really helps. And there were occasions when the lecturer would put up an example question and would break every point down, and you'd explain that that's how you have to do it in the essay. When they don't tell you that and you sort of forget about it, you usually just rant and rave on what you know or don't know, rather than answering in say the form that they want you to. If you're told of that problem after the essay or exam, then it's a little too late and it doesn't really sink in.*

**Student**

Similarly, in the following question, two commands have been used and it is not clear whether the second command is a separate requirement or if it is information about how to respond to the first command:

*Write a report summarising the necessary stages for transforming a brochure-ware site to a one-to-one interactive site. Outline the benefits that can be expected from this transition.*

This can be reworded as:

*Write a report summarising the necessary stages for transforming a brochure-ware site to a one-to-one interactive site. Your report must include the benefits that can be expected from this transition.*

For multiple choice and true/false questions, where both the additional elements and the nucleus are expressed as statements, the nucleus should be indicated by bold type. For example:

15. *Epex Pty Ltd makes a single product. Annual fixed expenses are \$48,000 and the contribution margin ratio is 30%. **The volume in sales that is necessary for Epex to achieve a target profit of \$15,000 is:***

- A \$63,000
- B \$68,571
- C \$90,000
- D \$160,000
- E \$210,000

## Paragraphs/texts

Elements that present contextual information and, to a lesser extent, answer information can be provided as separate paragraphs or as whole texts. When additional elements are included in this way, it is important that the length and complexity are appropriate to your students' (English) language skills. Many of the principles discussed in the previous section on sentences can be applied to the writing of contextual elements. Paying close attention to cultural considerations and layout can further improve accessibility and clarity.

## Cultural considerations

If the context is an imagined scenario, you need to keep the content as realistic and culturally neutral as possible. Meanings which rely on cultural knowledge, such as jokes, may not be (immediately) understood by all students and may just be a confusing distraction to others.

Questions can be written so as to require the student to answer within the context of the question, that is, as if they are in a particular role. However, this is only appropriate if it closely addresses the targeted learning outcome. Care also needs to be taken to ensure that answering in context is appropriate or feasible; for instance in a culturally diverse student group, cultural norms may inhibit some students from answering the question as required.

The following question is an example of one that involves a scenario that may present problems for students:

### QUESTION ONE

*(15 marks in total. 2 parts to the question)*

*You have recently graduated with your Bachelor's degree and have applied for a position with the Australian Accounting Standards Board (AASB) as a technical adviser. At the interview the Chairman stresses that they often have difficulties in determining whether the standards they draw up should follow a 'principles-based' or a 'rules-based' approach. In particular they want to implement standards to overcome creative accounting practices. Knowing that you have recently completed studies in accounting theory and standard setting, the Chairman asks you the following questions:*

**Required:**

- (a) What are the main differences between the 'principles based' approach as opposed to a 'rules based' approach to standard setting? Why is a principles based approach currently preferred to a rules based approach? (10 marks)*
- (b) In what areas is it particularly difficult to restrict creative accounting? (5 marks)*

*Well I think you have to give them tasks that are challenging. I think if you just give them rote learning sorts of tasks you probably don't improve anybody's learning. If you use things like closed book exams and that type of thing I doubt if you do improve anyone's learning. I think what you do with that type of assessment is you encourage shallow superficial processing of what's called surface learning. Just in one ear, holds in there for the length of the you know the exam paper and out the other and they haven't actually learned anything ...*

**Academic**

In this scenario, the student is addressed as *you* and therefore they might reasonably expect to have to answer the question within context by taking on a role. However, it is not clear whether the requirements of the questions are in context or not. On the one hand, they are specified as the questions asked by the Chairman. On the other hand, they are under the subheading *Required* and the use of *you* is not maintained. In addition, to answer the question in context would call for a verbal or “spoken like” answer. The other difficulty with the question is that expectations of responding to the Chairman will differ across cultures or sub-cultures and, therefore, some students may answer the question inappropriately. In this case, the question would perhaps be better presented without the scenario:

Question 1	Accounting Standards	15 marks
(a) What are the main differences between the ‘principles based’ approach as opposed to a ‘rules based’ approach to standard setting?		[6 marks]
(b) Why is a principles based approach currently preferred to a rules based approach?		[4 marks]
(c) In what areas is it particularly difficult to restrict creative accounting?		[5 marks]

## Layout

If the additional elements are extensive (that is, multiple sentences or paragraphs), they can be delineated by sub-headings and line spacing. Here is a sample question:

*During the late 1980s and early 1990s, China was routinely cited by various international organisations such as Amnesty International and Freedom Watch for major human rights violations, including torture, beatings, imprisonment, and executions of political dissidents. Despite this, in the late 1990s and early 2000s, China has received record levels of foreign direct investment, mainly from firms based in democratic societies such as the United States, Japan and Germany. Evaluate this trend from an ethical perspective. If you were a CEO of a firm that had the option of making a potentially very profitable investment in China, what would you do?*

The actual requirements for answering the question could have been made much more distinct by the use of a sub-heading and spacing:

*During the late 1980s and early 1990s, China was routinely cited by various international organisations such as Amnesty International and Freedom Watch for major human rights violations, including torture, beatings, imprisonment, and executions of political dissidents. Despite this, in the late 1990s and early 2000s, China has received record levels of foreign direct investment, mainly from firms based in democratic societies such as the United States, Japan and Germany.*

### Requirements:

- Evaluate this trend from an ethical perspective. (3 marks)*
- If you were a CEO of a firm that had the option of making a potentially very profitable investment in China, what would you do? (2 marks)*

As the amount of additional information increases, rather than presenting it in a paragraph it may be clearer and more concise to use point form. This is particularly the case for information on how to answer the question, as this makes your expectations more prominent and easier for the student to refer back to. With contextual information, you may decide to present it as a paragraph(s) to assess the student’s ability to identify relevant information. However, for detailed scenarios using point form is recommended. For example:

*Comptech Ltd is currently undergoing an audit of their accounts payable processes. Comptech’s suppliers send their invoices out electronically. These electronic invoices are often received by CompTech Ltd well before the goods arrive. All electronic invoices are printed out by the payables clerk and filed by due date on the open invoice file.*

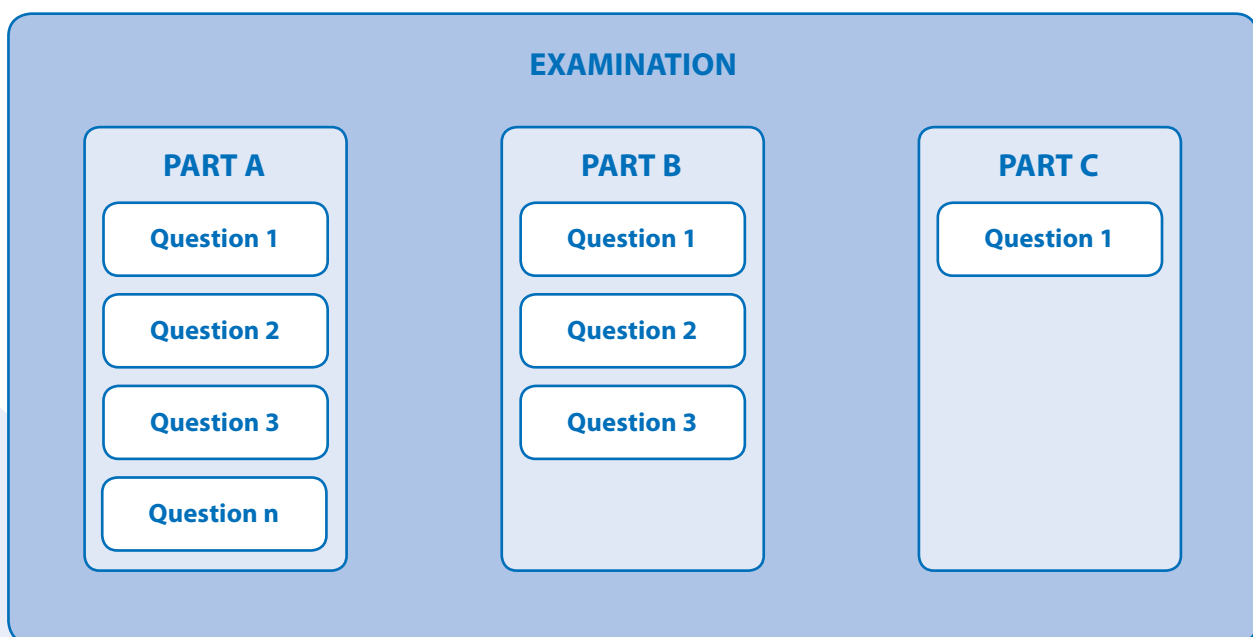
### Payments are made as follows:

- As payments become due, the payables clerk retrieves the invoice from the system and prepares the cheque requisition document.*
- Cheque requisition documents are then matched up by the payables clerk with the corresponding invoice, purchase order and receiving report.*
- The matched documents are forwarded to the treasury department clerk. The treasury department clerk prepares a cheque, attaches it to the supporting documents and forwards it to the supervisor. The supervisor matches the cheque to the supporting documents and signs the cheque.*
- The treasury clerk then records the cheque details (date, cheque number, payee, and amount) on the invoice and sends the cheque to the supplier.*
- The cheque requisition, annotated invoice, receiving report and purchase order are then filed by supplier name in the accounts department.*

# Exam PRESENTATION

*When you've written up all the questions for the exam, you need to decide how you are going to present your carefully crafted words. A set of questions that are grouped illogically and badly presented have the potential to undermine the clarity and accessibility you have been so concerned to achieve. This section will help you through the layout of the exam paper and we have provided some examples, including samples of sections.*

Exams can have up to three levels — the whole exam itself; sections or parts that the exam is divided into; and the questions that make up each section.



Most typically, the division of an exam into sections is based on the answer type required, as a reflection of the level of learning being assessed. For example, there may be a section of multiple choice questions assessing knowledge, which is followed by a section of essay questions assessing synthesis and evaluation. Exams may also be divided into sections according to subject area, or in some cases by learning activities (such as lectures versus case studies).

How you divide the sections into questions will depend on the answer type as well as the complexity of the question. You could have simple short answer questions within a single section, based on topics from across the entire unit content; or you could limit the topics to just a sub-section of the unit content. Complex questions can be split into different parts, each requiring different answer types and therefore assessing different levels of learning. (For longer

answers and more complex questions, it is best to design each question to address a particular topic and keep them within one section.)

As with the other features we have discussed, the structure of the exam should reflect the learning outcomes being assessed. Furthermore, it is important that the structure itself does not inadvertently assess learning outcomes or objectives that are outside the scope of the exam or the course. For example, if the basis of division of the exam into sections or questions is not clear, then you may effectively be assessing synthesis across subject areas, even though this was not one of your learning outcomes or objectives.

The presentation of the exam should make the structure as clear and overt as possible. There is particular information that should be provided at each level.

## Question presentation

- 1) *Question number*
- 2) *Total marks*
- 3) *Orientation — The subject area (for example “Goods and Services Tax (GST)” in the question below) and/or learning outcome that is being assessed.*
- 4) *Question instructions — Which parts to answer, where they should be answered, how they should be answered.*
- 5) *Marks per requirement — if the question is a complex question with multiple requirements the marks for each requirement should be shown.*

You may find you do not need to detail the total marks, orientation or the instructions if they have already been made explicit in the section and/or exam information, and if they do not vary from question to question.

### Example question format

Question 1	Goods and Services Tax (GST)	10 marks
a) What additional ledger accounts do Australian Entities need to maintain as a result of the Goods and Services Tax?		[4 marks]
b) What type of accounts are the additional accounts?		[2 marks]
c) Amounts relating to GST appear in the balance sheet but they do not appear in the income statement. Explain the reasons for this.		[4 marks]

## Section presentation

At the beginning of each section the following information should be detailed in a section header:

- 1) *Section identifier*  
*Part X*
- 2) *Section name — based on the basis of the division into sections as detailed in the exam information, such as:*  
*Multiple Choice Questions*  
*Group Project Questions*  
*General Insurance Questions*  
*Classifying Accounting Information*
- 3) *Total marks*  
*(XX marks)*
- 4) *Section structure*

*This section consists of X questions. Each question is worth Y marks.*

*or*

*This section consists of X questions. Each question is worth different marks as follows:*

*Question 1 — Y marks*

*Question 2 — Y marks*

*Question 3 — Y marks*

*Question 4 — Y marks*

- 5) *Section description — a brief description of the section including what the section aims to examine and the basis of division:*

*The questions in this section will assess your ability to ... Each question addresses a different ...*

- 6) *Section instructions — which questions to answer, where they should be answered, how they should be answered:*

*Attempt ALL questions*

*Answer any X questions*

*Answer question X and any other Y questions*

*Answer each question in a separate answer booklet*

*Write in black pen*

*Answer each question in a single paragraph of no more than 400 words*

We have included a table of examples of section headers prepared in accordance with these guidelines — see “Sample section headers” on the next page.

## Sample section headers

Part A	Multiple Choice Questions	Marks: 40
<p>This section consists of 40 questions. Each question is worth 1 mark.</p> <p>The questions will assess your knowledge of the microeconomic principles that you have been introduced to in this unit.</p> <p><b>Instructions:</b> Attempt <b>ALL</b> questions. Answer the questions on the answer sheet provided. Use ordinary pencil. Select the alternative that most fully and correctly answers the question.</p> <p><b>DON'T FORGET</b> to complete your family name and student number on the answer sheet.</p>		

Part B	Compulsory Essay Question	Marks: 20
<p>This section consists of 1 question worth 20 marks.</p> <p>The questions will assess your understanding of the economic models you have been introduced to in this unit.</p> <p><b>Instructions:</b> You must attempt this question. Write your answer in essay format in a separate answer booklet. Write the question number in the space provided on the front of the answer booklet.</p>		

Part C	Additional Essay Questions	Marks: 40
<p>This section consists of 4 questions. Each question is worth 20 marks.</p> <p>The questions will assess your understanding of the microeconomic principles you have been introduced to in this unit.</p> <p><b>Instructions:</b> Attempt <b>ANY TWO</b> questions. Write your answers in essay format. Use diagrams where appropriate. Answer each question in a separate answer booklet. Write the question number in the space provided on the front of each answer booklet.</p>		

## Exam presentation

At Macquarie University the information to be shown on the front page of the examination is detailed in the instructions sent to unit convenors by the Academic Registrar. While you need to comply with these requirements, it is important for your students' benefit that you also make the structure of the exam as explicit as possible, including descriptions for the basis of the division into sections if applicable, and the alignment of each section to the learning outcomes.

## The finale

Once you feel satisfied with the structure, wording and presentation of your exam, it is worthwhile to review it once more against the key principles of relevance, accessibility and clarity. Here is a checklist to help you with that.

### Relevance (structure)

This exam gives students opportunities to:

- demonstrate achievement of the learning outcomes
- demonstrate high level thinking
- consolidate their learning
- engage with authentic contexts
- demonstrate graduate capabilities.

### Accessibility (wording)

The language used in the exam:

- expresses the question unambiguously
- makes your expectations about the format of the answer explicit
- is appropriate for the diverse student group
- does not rely on implicit cultural knowledge or norms.

### Clarity (layout)

The layout of the exam:

- makes explicit the learning outcomes being assessed by each of the questions
- presents the basis of division of the exam unambiguously
- allows easy identification of the different elements of each question
- allows the different elements of each question to be viewed simultaneously.

# Glossary

**adverb** — a word used to describe how a process is carried out (eg *briefly, clearly*)

**clause** — a unit of language, the key element of which is a verb or verbal group expressing a process. Other elements are the people, places or things involved in the process and circumstances of when, where and how the process occurs

**command** — the grammatical form most typically used to give orders (eg *Explain the law of one price*)

**conjunction** — a word used to link clauses within a sentence together (eg *and, by, if, but*)

**grammatical form** — the grammar of the three main types of clauses: question, command and statement

**noun** — word expressing a person, place or thing; both concrete and abstract

**nominal group** — a unit of language in which the key element is a noun or pronoun, generally used in clauses to express people, places or things; both concrete and abstract

**nominalisation** — phenomenon in which a process becomes an abstract object or thing (eg *compare* — process, versus *a comparison* — thing)

**nucleus** — used in this context to refer to the obligatory element of an examination question that expresses what the student is being asked or instructed to do. A question with multiple parts will have multiple nuclei, that is, one for each part

**paragraph** — unit of written language, made up of sentences, indicated by spacing

**preposition** — word placed before a noun or nominal group to create a prepositional phrase (eg *in the balance sheet*)

**prepositional phrase** — a unit of language consisting of a preposition followed by a nominal group (eg *in the balance sheet*). Prepositional phrases are used in clauses to describe the circumstances in which a process occurs, or in nominal groups to define the noun

**process** — an action or state (of being) which is the key element of a clause, expressed by a verbal group

**pronoun** — word referring to a person, place or thing that has been mentioned previously (eg *he, she, they, it*)

**question 'wh-'** — grammatical form typically used to seek missing information

**sentence** — unit of language which is indicated by an initial capital letter and a final full stop, a question mark or an exclamation mark. Sentences consist of at least one clause but may consist of multiple clauses

**units of language** — the building blocks that language is constructed with. In this context the smallest unit used is a word. Words are combined to make groups (of words) or prepositional phrases. Groups (of words) and prepositional phrases are combined to make clauses. Clauses are combined to make sentences. Sentences are added together to make paragraphs

**statement** — grammatical form typically used to give information

**verb** — word which expresses an action or existence (eg *to be*)

**verbal group** — a unit of language consisting of a verb, which may be preceded by auxiliary items, often expressing tense (eg *She was writing an exam*). Verbal groups are the key element of a clause because they express the process taking place

Have you been setting exams for years and want to look through fresh eyes?  
Are you looking to change your exam format?  
What are the implications of exams for students whose first language is not English?  
How can you align exams with learning outcomes?  
What are some cultural implications of exams?  
What does theory tell us about designing exams?  
Have you always wanted to know what nominalisation means, but were afraid to ask?

## Then this guide is for you!

This booklet is one of a series produced for the Learning Excellence and Development (LEAD) program. The program brings together as a team a multi-disciplinary group of university staff — general staff as well as academics — each working on a separate but related project to enhance student learning. The projects use an action research approach to nurture a research-based and responsive teaching culture. The program is managed by the Faculty of Business and Economics.

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