

# **MARKSCHEME**

**November 2006**

**BUSINESS AND MANAGEMENT**

**Higher Level**

**Paper 1**

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## SECTION A

1. (a) **Identify *three* stakeholders in *SunGen Ltd*.** [3 marks]

Candidates could identify a number of stakeholders of *SunGen Ltd* and these may include:

- Electrical Solutions plc as the holding company (alternatively, the answer “shareholders” is acceptable, though not both as *SunGen Ltd* is a wholly owned subsidiary)
- suppliers
- customers
- banks or other lenders
- local government
- local community
- employees
- managers
- *any other relevant stakeholder.*

[1 mark] for each stakeholder appropriately identified up to a maximum of three. Competitors are not acceptable as an answer.

(b) **Explain possible areas of conflict that may arise between two of the stakeholder groups identified in part (a).** [8 marks]

The answer to this part needs to be directly related to the stakeholder groups identified in part (a) and the introduction of new stakeholder groups will limit the level achieved.

Stakeholder conflict may arise between a number of stakeholders and candidates may choose any of these depending on their answer to part (a). They may include:

- employees and the shareholders – employees want the best possible levels of wages, while the firm needs to keep tight control over costs. There may also have been some conflict between these groups within *SunGen Ltd* as a significant proportion of the staff were internally recruited from Electrical Solutions and this may lead to conflict
- suppliers and the firm – *SunGen Ltd* has a shortage of working capital and is likely to try to avoid paying suppliers for as long as possible to ensure they do not run into cash flow problems. This may be a source of conflict
- local government and the firm – *SunGen Ltd* are looking to expand their production facility and while the local government may regard this as a positive opportunity in terms of employment *etc.* there may be problems regarding planning or other laws or there may be objections from the local community if the infrastructure is not regarded as adequate
- *any other relevant areas of conflict.*

An explanation of conflict within a stakeholder group can be credited up to a maximum of [2 marks] as appropriate.

**[6 to 8 marks]**

A balanced and detailed explanation of possible areas of conflict. The explanation is related to part (a) and to the case study. Business theory and terminology are used appropriately throughout.

**[3 to 5 marks]**

Some explanation of the possible areas of conflict. The explanation is generally related to part (a) and to the case study. Some business theory and terminology is used. If a new stakeholder group is introduced then a maximum of **[4 marks]** can be awarded.

**[1 to 2 marks]**

A limited answer that may consider some possible areas of conflict though these may simply be listed and not appropriate to the case study. An explanation of conflict within a stakeholder group gains a maximum of **[2 marks]**.

**2. SunGen Ltd have decided to expand and target their products at individual households (lines 91-92).**

**(a) Examine the internal and external forces driving and restraining this expansion.**

**[8 marks]**

Internal forces are those forces which are controllable by the firm itself. These may include:

- financial pressures – limited availability of finance for expansion may constrain the firm's ability to expand quickly (restraining)
- management and owners – given the lack of growth in their own market, the owners, Electrical Solutions, will be putting pressure on *SunGen Ltd* to achieve significant growth (driving)
- employees – while Catherine and others may be pushing for expansion, there may be resistance among some employees, particularly given the high proportion who have been recruited internally from Electrical Solutions (driving/restraining)

External forces are those forces from outside the firm, which are beyond its control. They could be regarded as PEST forces. They may include:

- housing market changes – there are concerns about the state of the Australian housing market and given their reliance on this market, *SunGen Ltd* will be worried about how this may impact on their sales (restraining)
- economic growth – economic growth is set to fall in both 2007 and 2008 and this may have a negative impact on sales, particularly given the likelihood that their products are relatively income elastic (restraining)
- technological change – technological development has made the use of solar power products more cost effective and therefore brought them more within the reach of consumers. This trend is likely to continue with costs coming down further as economies of scale in production are more widely achieved (driving)
- environmental awareness and attitudes – the growth in environmental awareness and concerns over oil prices, global warming and other issues are likely to raise awareness of *SunGen Ltd's* products (driving)

- competition – there is currently little competition, but success in this market may attract the attention of larger multinational firms to the market
- legal and regulatory changes – *SunGen Ltd* is lobbying for changes in housing market and planning regulations and if these come about, they may have a significant impact on the firm's operations (driving).

At present the main driving forces are internal. Derek and Catherine see this market as offering the opportunity for expansion and diversification. While many employees are behind the change, there will also be a proportion who are concerned and will therefore be a restraining force. Externally the economy and housing market are likely to be restraining forces, but there are also market opportunities with the lack of competition, changes in environmental attitudes and possible changes in regulations. These will be driving forces and encourage expansion.

**[6 to 8 marks]**

A balance of internal and external, driving and restraining forces is examined. There is clear reference to the case study and business terminology is used appropriately.

**[3 to 5 marks]**

A range of internal and/or external, driving and/or restraining forces is examined though this may be lacking in balance towards the lower end of the range. There is some reference to the case study, though this may be limited at the bottom end of the range.

**[1 to 2 marks]**

A limited and essentially descriptive answer. Points may simply be listed without adequate examination.

- (b) Evaluate two strategies that *SunGen Ltd* could adopt to manage this process of change. [8 marks]**

The rapid change resulting from the proposed expansion is likely to lead to resistance among many employees and it will be important for *SunGen Ltd* to adopt strategies to manage the process of change. One method that may prove successful is to try to introduce a “culture of change” into the organization. This may mean building commitment among employees by sharing information, encouraging suggestions, breaking change down into manageable chunks and perhaps being honest about problems that may result from change. It may also help to break down departmental barriers, ensure employee empowerment and involvement and develop closer relationships between employees and management. However, the development of a change culture may be both expensive and time consuming. Though Greg and Catherine are both enthusiastic advocates of this type of approach, there is some resistance from some internally recruited staff and Tony, who believes in a taller hierarchy with clearly delineated lines of communication.

Other strategies to help manage the process of change that will result from the expansion might include:

- informing and consulting people as early as possible
- ensuring that the advantages of change are promptly and clearly identified and communicated to staff
- retraining and other support is offered as part of the process of change

- ensuring that clear and manageable targets (perhaps SMART targets) and objectives are set and support is offered to help achieve them
- involving all departments and employees in the planning for change
- planning strategically for the change. This could be introduced as:
  - total imposed package
  - total negotiated package
  - imposed piecemeal initiatives
  - negotiated piecemeal packages.

Whichever of these strategies is chosen, candidates should discuss them appropriately and then offer a judgment of their suitability in the context of *SunGen Ltd*. This discussion may include an assessment of how well change would fit in with their current plans and objectives (e.g. changes to the organisational structure, the introduction of an appraisal system and opportunities for training).

**[6 to 8 marks]**

A detailed and balanced evaluation of two possible strategies for managing change. The evaluation is closely related to the case material and the appropriateness of each strategy is considered.

**[3 to 5 marks]**

A reasonable examination of two strategies for managing change. At the lower end of the mark range this may be unbalanced and the discussion may tend to be more descriptive, but it is generally related to the case material. Candidates who do a good evaluation of just one strategy should be awarded a maximum of **[4 marks]**.

**[1 to 2 marks]**

A limited and essentially descriptive answer with some consideration of the process of change.

3. (a) **Analyse the advantages and disadvantages to *SunGen Ltd* of production “running at an average 98 % capacity” (lines 58-59). [9 marks]**

Running at a very high level of capacity will be beneficial for the firm as it will mean that unit costs are low (fixed costs spread over a large range of output). This will make it easier for the firm to be price competitive. However, given that the price elasticity of the products produced is likely to be inelastic, this may mean that they can maintain their prices and have higher margins. This will help raise the overall level of profit. Running at a high level of capacity will make it easier for the firm to make any decisions about expansion of capacity as the need for it is clearer.

However, it is also likely to lead to a range of problems and these may include:

- increased pressure on employees – this may limit the time available for training and employee development
- increased costs associated with overtime payments and perhaps higher prices for raw materials and other inputs. There may also be higher recruitment and training costs to employ sufficient skilled staff
- there is an indication of possible industrial action as employees are unhappy about the extra hours and the unpredictable nature of the work

- less flexibility in the case of new orders being won
- less ability to plan ahead and market appropriately for growth without spare capacity being available
- more pressure on capital equipment and less time to carry out essential maintenance
- *any other relevant point.*

**[7 to 9 marks]**

There is detailed and balanced analysis of the possible advantages and disadvantages of high capacity usage with a clear understanding of the nature of production and capacity. The analysis is closely related to the case and business theory and terminology are used appropriately.

**[4 to 6 marks]**

The analysis considers some possible advantages and/or disadvantages from high capacity usage though this may not be balanced. The analysis is generally related to the case, though this may be limited and perhaps tend to be descriptive at the lower end of the range. If just advantages or just disadvantages are considered, a maximum of **[4 marks]** should be awarded.

**[1 to 3 marks]**

A limited and essentially descriptive answer.

- (b) **Identify *three* possible sources of finance available to *SunGen Ltd* to finance the expansion of their production capacity and evaluate their suitability.**

**[9 marks]**

Possible sources of finance for expansion could be either internal or external. A possible internal source could be:

- retained profit – there is no retained profit available in *SunGen Ltd*, but they are a wholly owned subsidiary of Electrical Solutions plc and there may be funds available that could be lent to *SunGen Ltd*. However, profitability has been falling in Electrical Solutions and they have already been funding *SunGen Ltd* significantly and so this source may be limited
- other internal sources of funds like working capital and sale and leaseback of assets are not likely to be appropriate in these circumstances as *SunGen Ltd* already has a shortage of working capital and few assets to sell.

Possible external sources may be:

- share sales – this is not appropriate for *SunGen Ltd* if they wish to remain a wholly owned subsidiary of Electrical Solutions, but it may be an option for Electrical Solutions who could lend the money on to *SunGen Ltd*. However, this is a major and costly process and so the scope for this may be limited
- loan capital – the firm could organise as a bank loan or Electrical Solutions could issue debentures. However, the firm already has a high gearing ratio and extra loan capital will raise interest payments and leave them more exposed to external changes
- other short-term external sources like overdrafts, debt factoring and changing credit terms are not likely to be suitable for financing a production facility. This requires long-term funding.

**[7 to 9 marks]**

Three sources are identified and the evaluation is detailed and balanced. The sources are well considered. The suitability of each source is considered and for **[9 marks]** a judgment is given about each source.

**[4 to 6 marks]**

At least two appropriate sources are identified with some relevant discussion. For **[4 marks]** there may simply be an explanation of three relevant sources with limited or no discussion.

**[1 to 3 marks]**

A limited and essentially descriptive answer. A list of three potential sources of finance should receive a maximum of **[3 marks]**.

4. (a) **Explain what is meant by “the market for solar power equipment is a niche market” (line 77).** **[3 marks]**

A niche market is a smaller portion of a larger market. It generally refers to a group whose needs are not being addressed by mainstream providers. The market for solar power is a smaller part of the larger electricity generation market.

Another definition of a niche market would be *a narrowly defined group of potential customers.*

**[3 marks]**

An accurate definition of a niche market and an appropriate explanation of why the market for solar power is a niche market.

**[2 marks]**

A niche market is accurately defined.

**[1 mark]**

There is an attempt to define a niche market that identifies some appropriate elements of the definition, but may not be complete.

- (b) **Discuss the marketing issues Ying should address in order to design an appropriate marketing strategy for free standing solar panels (lines 97-98 and Appendix 1).** **[12 marks]**

This is a very open question that may be approached in a number of possible ways. The marketing issues that need addressing are quite broad, but do need to be specifically related to the needs of the freestanding solar panels. Solar panels are a relatively cheaper product than the rest of the *SunGen Ltd* range and are targeted at individual households. They are appropriate for both existing and new households. The issues to be considered may include:

- the nature of the market which *SunGen Ltd* is targeting – for free standing solar panels, this is more of a mass market than for their other products. Which are the main market segments being targeted and why? Is further market research required to establish this?
- SWOT analysis – a marketing strategy should be informed by a SWOT analysis to identify internal strengths and weaknesses and any relevant external opportunities and threats.



While there is not a need to carry out a full SWOT analysis for this question, it may be relevant to refer to some areas of it where it may help to identify important issues for the development of an appropriate marketing strategy

- what changes are taking place in the business environment? Are these opportunities or threats? There are some concerns about the Australian housing market and the state of the economy – how much will these affect the level of demand given the income elastic nature of the product?
- what are *SunGen Ltd's* potential customers looking for? What are their needs? What value is added by *SunGen Ltd* and what is the Unique Selling Point (USP) of the free standing solar panels? A marketing strategy will need to be developed that addresses these needs and ensures the prominence of the USP
- which customers/market segments are the most profitable?
- how should *SunGen Ltd* target the right potential customers? Are there groups or segments that can be targeted effectively?
- what is the best way of finding the customers? What is the best way of communicating with them?
- how could *SunGen Ltd* improve their customer service? Better customer service can be a low-cost way of gaining a competitive advantage over rivals and of keeping customers, boosting sales and building a good reputation
- what is the most appropriate marketing mix for the products? The four Ps need to be addressed:
  - how will the free standing solar panels be priced? Although prices need to be competitive, most businesses find that trying to compete on price alone is a poor strategy. What else are customers interested in? Quality? Reliability? Efficiency? Value for money?
  - what is the best way of distributing and selling the products? Given the wider nature of the market do they need to be discussing distribution with major retailing firms?
  - how can the freestanding solar panels best be promoted? Options might include advertising, direct marketing, exhibiting at trade fairs (though limited value for the household market), PR or marketing on the web
- how can *SunGen Ltd* tell if their marketing is effective? A small-scale trial can be a good way of testing a marketing strategy without committing to excessive costs.

***[10 to 12 marks]***

There is detailed and balanced discussion of the marketing issues that need to be addressed for a marketing strategy. There is a clear understanding of marketing strategy and associated marketing theory. The issues are related to the case, and business theory and terminology are used effectively and appropriately.

***[7 to 9 marks]***

There is clear discussion of the marketing issues that need to be addressed for a marketing strategy to gain the full ***[9 marks]***. At the bottom end of the band answers will be characterised by an unequal balance in the discussion. There is reasonable evidence of understanding of marketing strategy and some marketing theory is used. The issues are generally appropriate to the case, though may tend to be more general and descriptive at the bottom end of the mark range.

***[4 to 6 marks]***

The answer considers some of the marketing issues that need to be addressed for a marketing strategy and perhaps some elements of a marketing mix, though this may be relatively incomplete. There is some evidence of an understanding of marketing theory, though this may not be consistent.

***[1 to 3 marks]***

A very limited and essentially descriptive answer. There may be points with some relevance to a marketing strategy, but any explanation is poor. A simple list of appropriate marketing issues should receive a maximum of ***[2 marks]***.

**SECTION B**

5. (a) **Explain the importance of R&D to SunGen Ltd.** **[4 marks]**

*SunGen Ltd* is operating in a fast-moving and high technology market. This means that they need to invest in R&D to develop new products for growth and to ensure that their existing products remain competitive. However, R&D can be expensive and, as a small firm, *SunGen Ltd* may find it difficult to fund sufficient R&D and so may depend on using and adapting the products and technology developed by larger firms.

**[4 marks]**

A detailed explanation of the importance of R&D that is clearly related to the situation of *SunGen Ltd*. There is a clear understanding of the link between R&D and technology.

**[2 to 3 marks]**

A reasonable explanation of the importance of R&D that for **[3 marks]** is related to *SunGen Ltd*.

**[1 mark]**

An essentially descriptive answer with some limited evidence of understanding of R&D.

- (b) **Calculate the payback, accounting rate of return (ARR) and net present value for the Windx and Blown Away wind tunnels using a discount rate of 8 %. (Show your working.)** **[8 marks]**

**Payback period**

Windx = 3 years 52 days (accept 3 years 2 months)  
 Blown Away = 2 years 271 days (accept 2 years 8 or 9 months)

**Average rate of return**

Windx – total net cash flow = \$800 000  
 Less capital cost \$500 000 = \$300 000

Cash flow per annum = 300 000 / 5 = \$60 000

ARR = Cash flow per annum / capital cost . 100  
 = 12 %

Blown Away – total net cash flow = \$870 000  
 Less capital cost \$600 000 = \$270 000

Cash flow per annum = 270 000 / 5 = \$54 000

ARR = Cash flow per annum / capital cost . . 100  
 = 10.8 %

<b>Net present value</b>				
	<b>Windx</b>		<b>Blown Away</b>	
	<b>\$000</b>		<b>\$000</b>	
Capital cost	500		600	
		Present value		Present value
		(\$000)		(\$000)
Net cash flow				
Year 1	125	115.75	245	226.87
Year 2	150	128.55	225	192.83
Year 3	200	158.8	175	138.95
Year 4	175	128.63	125	91.88
Year 5	150	102.15	100	68.1
Total	800	633.88	870	718.63
	Less investment	500		600
	NPV	134		119

**Payback period and ARR**

*[2 marks]*

For each correctly calculated method with appropriate working shown.

*[1 mark]*

Where there are errors in the figures but the working shows a clear understanding of the method or where there is correct calculation of the figure for just one wind tunnel.

**Net present value**

*[4 marks]*

For correct calculation of NPV values for both wind tunnels with appropriate working shown.

*[2 to 3 marks]*

Where there are errors in the figures but the working shows a clear understanding of the method.

*[1 mark]* where there are significant errors but some understanding of method is evident.

- (c) **Using the financial considerations calculated in part (b), recommend which wind tunnel *SunGen Ltd* should purchase, giving reasons for your choice.** **[8 marks]**

Windx – the Windx wind tunnel has a longer payback period, but a higher ARR and NPV. This makes it a better wind tunnel on just financial grounds when the time value of money is taken into account. However, the longer payback period may mean that funding would be required for longer and given the gearing and working capital situation of *SunGen Ltd* this may be an issue.

Blown Away – the Blown Away wind tunnel appears a worse investment on just financial grounds on the basis of the ARR and NPV, though it does have a shorter payback period. This may help with the funding of the investment given the financial situation of *SunGen Ltd*. The Blown Away wind tunnel does generate higher cash flows in the earlier years and this may help with the working capital position of the firm.

**[6 to 8 marks]**

A detailed and balanced evaluation of both wind tunnels taking account of financial considerations. The evaluation is closely related to the case material and for **[8 marks]** there is a clear judgment of which wind tunnel would be more appropriate.

**[3 to 5 marks]**

A reasonable consideration of both wind tunnels, though at the lower end of the mark range this may be less balanced. The answer may tend to be more descriptive at the lower end of the band, but is generally related to the case material.

**[1 to 2 marks]**

A limited and essentially descriptive answer with some discussion of the financial merits of each wind tunnel though this may not be balanced or points may simply be listed.

**6. (a) Explain what is meant by**

**(i) franchising**

Franchising – from the French for “Free”, franchising is a method of doing business wherein a firm (called the franchisor) licenses trademarks and methods of doing business to another firm (called a franchisee) in exchange for a recurring royalty fee and/or a share of the profits.

**(ii) joint venture.**

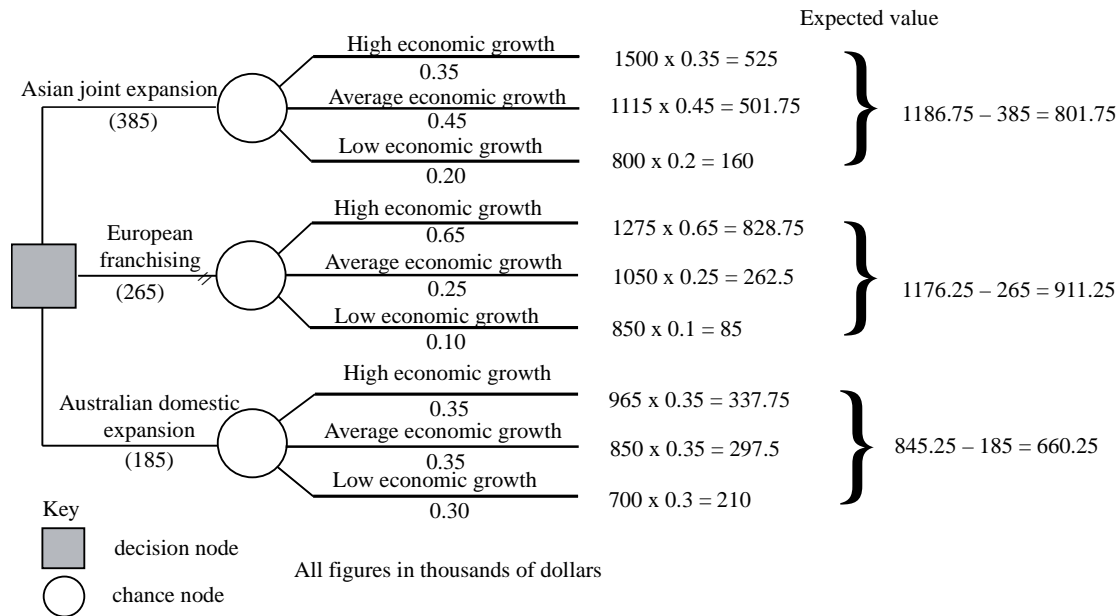
**[4 marks]**

A joint venture is where firms co-operate to carry out a particular area of work or a particular contract. In the joint venture both firms share, in some proportion, the responsibility and the profits or loss on a contract. Normally, the revenues or the employees of both firms are added together to determine the size of a joint venture.

[2 marks] for each term accurately explained.

[1 mark] for each term explained but lacking sufficient depth or detail to be an accurate explanation.

(b) Construct a fully labelled decision tree showing which method of distribution is best on financial grounds. (Show your working and a key.) [8 marks]



[8 marks]

Fully labelled, complete and accurate decision tree with a key and showing the workings required to calculate expected values. Clear identification of European franchising as the best financial option.

[4 to 7 marks]

Complete decision tree but perhaps missing a key or with minor errors in calculation. For [7 marks] European franchising must be identified as the best option on financial grounds.

[1 to 3 marks]

The framework of a decision tree though this may not include the calculation of the expected values, though these may be incomplete or inaccurate towards the bottom end of the range.

- (c) **Discuss the potential advantages *and* disadvantages of undertaking a joint venture with Electrosan to distribute *SunGen Ltd* products in Asia.** [8 marks]

Undertaking a joint venture with Electrosan will have a number of potential advantages and disadvantages and these may include:

- immediate access to new markets in Asia and a well-established distribution network, though this will depend how diverse Electrosan's distribution network is and how good their reputation in Asia is
- the joint venture may offer increased capacity and a more straightforward method of distribution and therefore expansion. Growth this way may be faster than if they organize their own distribution network. However, they are already running at 98 % capacity and so will they be able to fulfil orders from this wider distribution?
- the sharing of risks and profits/losses with a partner – this can be both an advantage and disadvantage. However, given their working capital situation, it is probably an advantage and will give them access to faster growth than would otherwise be possible
- it may give access to specialised staff and technology or perhaps to skills and knowledge specific to the region *e.g.* knowledge of rules and regulations for individual countries
- the joint venture is not as final as a merger or takeover. For example, depending on the terms of the agreement, the venture may have a limited life span and partners can eventually sell or transfer their share
- joint ventures are particularly popular where co-operation between businesses in different countries is an advantage and this may mean that a joint venture is the best route for expansion
- the objectives of the venture would need to be 100 per cent clear, and properly communicated to all the staff involved. If there is a mismatch between objectives or poor communication between the partners, this may result in failure or poor performance of the joint venture
- if there is an imbalance in levels of expertise, investment or assets brought into the venture by the different partners, then this may cause problems and may be a disadvantage of entering into the partnership. Whether this is a problem will depend on the skills and expertise of each firm
- one possible disadvantage is that *SunGen Ltd's* culture and management style may result in poor integration and co-operation between the partners
- if the parent businesses does not provide sufficient leadership and support in the early stages then there may be problems with the joint venture
- *any other relevant point.*

[6 to 8 marks]

Detailed and balanced discussion of the potential advantages and disadvantages of undertaking a joint venture. The discussion is related to the case study and business theory and terminology is used appropriately.

***[3 to 5 marks]***

Identification of a number of advantages and disadvantages of a joint venture with some limited discussion, though this may not be entirely balanced and may tend to be descriptive at the lower end of the band. The points raised, particularly at the lower end of the band may tend to be general and may not be entirely related to the case study. There is some use of business theory and terminology.

***[1 to 2 marks]***

A limited and essentially descriptive answer, perhaps just a list of some advantages and disadvantages without explanation or discussion.